

**WHMIS DATA SHEETS
FERGUSON LAKE , NUNAVUT**

2005-2006

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STARFIELD RESOURCES INC.

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WHMIS Definition and Use

The Inquiries Service at CCOHS answers questions on the health or safety concerns people have about the work they do.

First Aid Questions for Chemical & Materials Exposures

1. How long should skin be rinsed in the event of accidental chemical exposure?
2. Under what circumstances should oxygen be administered as a first aid measure?
3. When should vomiting be induced following ingestion of a chemical?
4. How do I know which antidote to have available for the chemicals in my workplace?
5. How do I know which first aid procedures to follow in my workplace?

How long should skin be rinsed in the event of accidental chemical exposure?

The American National Standards Institute (ANSI) Standard for Emergency Eyewash and Shower Equipment (ANSI Z358.1-1998) recommends:

- Affected body part must be flushed immediately and thoroughly for at least 15 minutes using a large supply of clean fluid under low pressure. However, other references recommend a minimum 20-minute flushing period if the nature of the contaminant is not known.
- The flushing or rinsing time can be modified if the identity and properties of the chemical are known. For example, at least 5-minutes flushing time for mild irritants, 20 minutes for moderate to severe irritants, 20 minutes for non-penetrating corrosives, and minutes for penetrating corrosives.

- If irritation persists, repeat the flushing procedure.
- Non-penetrating corrosives are chemicals that react with human tissue to form a protective layer that limits the extent of damage. Most acids are non-penetrating corrosives.
- Penetrating corrosives, such as most alkali's, hydrofluoric acid and phenol, enter the skin and eyes deeply. Penetrating corrosives require longer water flushing (minimum of 60 minutes) than non-penetrating corrosives (minimum of 20 minutes).

It is important to get medical attention as soon as possible after first aid has been given. OSH Answers has more information on emergency eyewash and shower equipment.

Under what circumstances should oxygen be administered as a first aid measure?

- In the past, oxygen was commonly recommended as a first aid procedure for almost any chemical exposure. It is now recognized that administering oxygen can be harmful if carried out improperly or in the wrong circumstances. For example, oxygen in concentrations greater than 24% may stop breathing in victims with certain medical conditions like chronic bronchitis or emphysema.
- In addition, the presence of oxygen tanks in the workplace can introduce additional hazards.

There are, however, some situations for which the benefits of oxygen administration are unquestionable. These situations include chemical exposures that can: interfere with the ability of oxygen to cross through the lungs to the blood stream, as in pulmonary edema, a potentially fatal accumulation of fluid in the lungs.

Some common chemicals that can cause pulmonary edema	• Ammonia, • Phosgene • Chlorine
Compromise the use of oxygen by body tissue	• Cyanide • Sulfide toxicity
Oxidized form of hemoglobin in the blood that does not transport oxygen	• Severe anemia • carbonmonoxide poisoning • methemoglobinemia

In situations where administering oxygen is appropriate, first aiders must be trained in the safe, proper use and handling of oxygen. Administration of oxygen may be considered a medical act in some jurisdictions. In any case, it is preferable to administer oxygen with a doctor's supervision or advice.

When should vomiting be induced following ingestion of a chemical?

It is important to note that ingestion of any chemical is not likely to occur in the workplace. Evidence and common sense indicate that inducing vomiting is not necessary in most situations where there has been an occupational chemical ingestion. Some of the arguments against inducing vomiting are:

- The amount of chemical accidentally ingested by an adult is generally estimated to be very small (0.5 to 0.75 oz. or about 14 to 21 mL).
- There is no conclusive evidence that victims of chemical ingestion who do have their stomachs emptied have more successful outcomes than victims who do not.
- There can be significant risks associated with inducing vomiting especially in emergency situations.
- There does not seem to be a reliable and safe first aid procedure for inducing vomiting in adults.
- Medical attention is usually available quite quickly in most situations.

In light of these arguments, the recommendation to induce vomiting should rarely be made for occupational exposures. In fact, induction of vomiting should only be recommended if the chemical has very high, short-term (acute) toxicity and medical follow-up is not readily available. In these cases, first aiders should receive special training on how to safely and effectively induce vomiting in the appropriate circumstances.

How do I know which antidote to have available for the chemicals in my workplace?

It is a common misperception that antidotes are available for most chemical poisonings. True antidotes are the exception rather than the rule. Three commonly recommended antidotes are the "**universal antidote**", **activated charcoal**, and **milk**.

- The **universal antidote** is a mixture of tannic acid, magnesium oxide and activated charcoal. To quote one source, "There is not one iota of objective, controlled or quantitative evidence in its testimony." In other words, it does not work "universally".

- **Activated charcoal** works by binding the chemical in the stomach so it cannot be absorbed through the stomach. It is necessary to swallow up to 10 times the weight of the ingested chemical to ensure success of the antidote. This amount would be difficult to estimate and even more difficult to ingest because of the gritty, unappealing texture and taste of activated charcoal. In addition, activated charcoal can interfere with some treatments a doctor may choose to use.
- Sometimes **milk** is recommended as an antidote. It is thought that milk will slow the absorption of some chemicals through the stomach. This is true in some cases, but milk can also speed up the absorption of fat-soluble chemicals. Evaporated milk is low in fat and may be useful in some circumstances, especially ingestion of corrosives. However milk, even evaporated milk, is unlikely to be readily available in most workplaces.
- Dilution of an ingested chemical with a small amount of **water** (240-300 mL or about 8-10 oz.) is the recommended procedure for most chemical ingestions. For corrosives, dilution with a small amount of water (240-300 mL) followed by dilution with milk, if available, is the recommended procedure.
- Two chemical classes that have true antidotes are cyanides and organophosphate pesticides.
 1. **Amyl nitrate** is a cyanide antidote
 2. **Atropine** is an antidote for organophosphate pesticide poisoning.Administration of these antidotes may be considered a medical act in some jurisdictions. Appropriate training and delegation of authority should be obtained from a doctor.

How do I know which first aid procedures to follow in my workplace?

In order to know what first aid procedures to follow, it is essential that you know what chemicals are present in your workplace.

- Consult your chemical inventory and the First Aid Section on the Material Safety Data Sheets (MSDSs).
- Create a list of chemicals, their properties and their corresponding first aid requirements.

-
- Be sure that the emergency first aid responders in your workplace have the appropriate training and delegation of authority (if necessary) to deal with the types of chemicals used at your workplace.
 - Finally, make sure your local hospital is aware of any chemicals on your site, which may require special first aid procedures or medical follow-up.

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**WHMIS Classes, Divisions and Subdivisions and Corresponding
HAZARD SYMBOLS**

Class A - Compressed Gases



Class B - Flammable and Combustible Materials

Division 1 - Flammable Gas

Division 2 - Flammable Liquid

Division 3 - Combustible Liquid

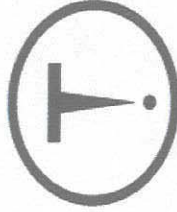
Division 4 - Flammable Solid

Division 5 - Flammable Aerosol

Division 6 - Reactive Flammable Material



Class C - Oxidizing Materials



Class D - Poisonous and Infectious Materials

Division 1

Materials Causing Immediate and Serious Toxic Effects

Subdivision A - Very Toxic Materials

Subdivision B - Toxic Materials



Division 2

Materials Causing Other Toxic Effects

Subdivision A - Very Toxic Materials

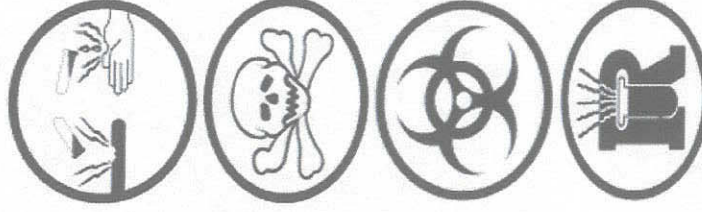
Subdivision B - Toxic Materials

Division 3

Biohazardous Infectious Materials

Class E - Corrosive Materials

Class F - Dangerously Reactive Materials



Bounce

WHMIS Information Sheets

PROCTOR & GAMBLE -- BOUNCE, SCENTED HOUSEHOLD FABRIC SOFTENER

SIGNS & SYMPTOMS OF EXPOSURE

PROLONGED SKIN CONTACT/INSTILLATION INTO THE EYE MAY RESULT IN TRANSIENT SUPERFICIAL (EFFECTS OF OVEREXPOSURE

Explanation Of Carcinogenicity: NOT RELEVANT.

Signs And Symptoms Of Overexposure: HLTH HAZARD: EFFECTS SIMILAR TO THOSE PRODUCED BY MILD TOILET SOAP. ORAL INGESTIONMAY RESULT IN MILD GASTROINTESTINAL IRRITATION WITH NAUSEA, VOMITING OR DIARRHEA.

Medical Condition aggravated By Exposure: NONE KNOWN.

Emergency Phone Number: 800-526-8623Published: Y

FIRST AID

ACUTE: INGESTION OF USED OR UNUSED SHEET BY A YOUNG CHILD OR HOUSEHOLD PET MAY LEAD TO IMPACTION OF GASTROINTESTINAL TRACT. A PHYSICIAN/VETERINARIAN SHOULD BE CONSULTED. REMOVE TO FRESH AIR.SUPPORT

Bounce

PRODUCT MONOGRAM

PROCTOR & GAMBLE -- BOUNCE, SCENTED HOUSEHOLD FABRIC SOFTENER

MSDS Safety Information

FSC: 7930
 MSDS Date: 12/07/1993
 MSDS Num: CGVCQ
 LIIN: 00N084876 Product ID: BOUNCE,
 SCENTED HOUSEHOLD FABRIC SOFTENER (SUPDAT)
 MFN: 01
 Responsible Party
 Cage: PROCT
 Name: PROCTOR & GAMBLE
 Address: 11530 REED HARTMAN HWY
 City: CINCINNATI OH 45241-2422
 Info Phone Number: 800-526-8623
 Emergency Phone Number: 800-526-8623 Published: Y

Contractor Summary

Cage: 60362
 Name: PROCTER & GAMBLE
 Address: 11520 REED HARTMAN HIGHWAY
 City: CINCINNATI OH 45241-2422
 Phone: 513-983-2508
 Cage: PROCT
 Name: PROCTOR & GAMBLE CO (513-562-0796)
 Address: UNKNOWN
 Box: 599
 City: UNKNOWN NK 00000
 Phone: UNKNOWN

Ingredients

Name: NONIONIC & CATIONIC FABRIC SOFT. AGENTS
 OSHA PEL: N/K (FP N)
 ACGIH TLV: N/K (FP N)
 Cas: 1318-02-1 RTECS #: ZG6800000
 Name: ZEOLITES; (ALUMINOSILICATES)
 OSHA PEL: N/K (FP N) ACGIH TLV: N/K (FP N)

Physical/Chemical Properties

Solubility in Water: LIMITED
 Appearance and Odor: OPAQUE WHITE SLITTED SHEETS;
 MODERN WOODY FRAGRANCE.
 Percent Volatiles by Volume: 1
 Reactivity Data
 Stability Indicator: YES Stability Condition To Avoid: NONE.

RTECS #: 1000511PU

Name: PERFUME

OSHA PEL: N/K (FP N) ACGIH TLV: N/K (FP N)

Name: NON-WOVEN RAVON CLOTH

OSHA PEL: N/K (FP N) ACGIH TLV: N/K (FP N)

Materials To Avoid: NONE.

Hazardous Decomposition Products: BY PRODUCTS: BURNING
CAN PRODUCE CARBON

MONOXIDE AND/OR CARBON DIOXIDE.

Hazardous Polymerization Indicator: NO

Health Hazards Data

LD50 LC50 Mixture: NONE SPECIFIED BY MANUFACTURER.
 Route Of Entry Inds - Inhalation: NO Skin: YES Ingestion: YES Carcinogenicity Inds - NTP: NO IARC: NO OSHA: NO
 Effects of Exposure: ACUTE: INGESTION OF USED OR UNUSED SHEET BY A YOUNG CHILD OR HOUSEHOLD PET MAY LEAD TO
 IMPACTION OF GASTROINTESTINAL TRACT. A PHYSICIAN/VETERINARIAN SHOULD BE CONSULTED. MILD SKIN AND EYE IRRITANT.
 SIGNS & SYMPS OF EXPOS: PRLNGD SKIN CONT/ INSTILLATION INTO THE EYE MAY RESULT IN TRANSIENT SUPERFICIAL (EFTS OF
 OVEREXP)

Explanation Of Carcinogenicity: NOT RELEVANT.

Signs And Symptoms Of Overexposure: HLTH HAZ: EFFECTS SIMILAR TO THOSE PRODUCED BY MILD TOILET SOAP. ORAL INGESTION
 MAY RESULT IN MILD GASTROINTESTINAL IRRITATION WITH NAUSEA, VOMITING OR DIARRHEA.
 Medical Cond Aggravated By Exposure: NONE KNOWN.

First Aid: INHAL: REMOVE TO FRESH AIR. SUPPORT

Handling and Disposal

Spill Release Procedures: SWEEP UP AND DISPOSE. Neutralizing Agent: NONE SPECIFIED BY MANUFACTURER.
 Waste Disposal Methods: DISPOSE AT LANDFILL OR AS DRY SCRAP. DISPOSAL IS TO BE PERFORMED IN COMPLIANCE WITH ALL
 FEDERAL, STATE AND LOCAL REGULATIONS.
 Handling And Storage Precautions: NO SPECIAL PRECAUTIONS FOR CASUAL EXPOSURE. Other Precautions: NONE REQUIRED.

Fire and Explosion Hazard Information

Extinguishing Media: USE CO*2, WATER OR DRY CHEMICAL.
 Fire Fighting Procedures: NONE REQUIRED. USE NIOSH APPROVED SCBA & FULL
 PROTECTIVE EQUIPMENT (FP N).
 Unusual Fire/Explosion Hazard: NONE.

Control Measures

Respiratory Protection: NO SPECIAL PRECAUTIONS FOR CASUAL EXPOSURE. NIOSH APPROVED RESPIRATOR APPROPRIATE FOR EXPOSURE OF CONCERN (FP N).

Ventilation: MECHANICAL (GENERAL): ACCEPTABLE Protective Gloves: IMPERVIOUS GLOVES (FP N).

Eye Protection: ANSI APPRVD CHEM WORKERS GOGGLES (FP N). Other Protective Equipmt: ANSI APPRVD EYE WASH & DELUGE SHOWER (FP N).

Work Hygienic Practices: NONE SPECIFIED BY MANUFACTURER.

Supplemental Safety and Health: MFR TRADE NAME/PART NO: (OUTDOOR FRESH).

Cascade

PROCTER & GAMBLE -- CASCADE (AUTOMATIC DISHWASHING DETERGENT) - DISHWASHING COMPOUND, MACHINE

SIGNS & SYMPTOMS OF EXPOSURE

- Health Haz Acute And Chronic: INGEST: MAY CAUSE VOMITING AND TRANSIENT, MODERATE GI IRRITATION.
- EYE: MAY CAUSE MODERATE, TRANSIENT IRRITATION.
- INHAL. HEAVY OR PROLONGED EXP. TO DUST MAY CAUSE TRANSIENT RESPIRATORY TRACT IRRITATION.
- SKIN: TRANSIENT IRRITATION WITH PROLONGED EXPOSURE TO CONCENTRATED MATERIAL.
- Signs/Symptoms Of Overexp: INGEST: MAY RESULT IN NAUSEA, VOMITING, AND/ OR DIARRHEA.
- EYE: MAY CAUSE STINGING, TEARING, ITCHING, SWELLING AND/OR REDNESS.
- INHAL: MAY CAUSE COUGHING, SORE THROAT, WHEEZING, OR TRANSITORY SHORTNESS OF BREATH.
- SKIN: CONTACT WITH CONCENTRATED MATERIAL MAY BE DRYING OR TRANSIENTLY IRRITATE SKIN.
- Med Cond Aggravated By Exp: NONE SPECIFIED BY MANUFACTURER.

FIRST AID

- INGEST: DRINK A GLASSFUL OF WATER OR MILK.

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- IF PROLONGED CONTACT OCCURS, RINSE THOROUGHLY WITH WATER. IF SYMPTOMS PERSIST OR REOCCUR, GET MD. Company's Emerg Ph #: 800-543-0485

PRODUCT MONOGRAM

PROCTER & GAMBLE -- CASCADE (AUTOMATIC DISHWASHING DETERGENT) DISHWASHING COMPOUND, MACHINE

MSDS Safety Information NSN: 7930006092555 Manufacturer's CAGE: 74188 Part No. Indicator: A Part Number/Trade Name: CASCADE (AUTOMATIC DISHWASHING DETERGENT) Record No. For Safety Entry: 001 Tot Safety Entries This Stk#: 001 Status: SMJ Date MSDS Prepared: 01FEB90 Safety Data Review Date: 04FEB92 MSDS Serial Number: BMSNQ Hazard Characteristic Code: N/	Contractor Summary Item Name: DISHWASHING COMPOUND, MACHINE Company's Name: PROCTER AND GAMBLE Company's Street: IVORYDALE TECHNICAL CENTER Company's City: CINCINNATI Company's State: OH Company's Country: US Company's Zip Code: 45217 Company's Emerg Ph #: 800-543-0485 Company's Info Ph #: 800-543-0485
Physical/Chemical Properties Appearance And Odor: LIGHT BLUE GRANULAR AGGLOMERATE W/LOW LEVEL WHITE GRANULAR ADMIX. PERFUMED. Boiling Point: N/A	Reactivity Data Stability: YES Cond To Avoid (Stability): NONE. Materials To Avoid: NONE. Hazardous Decomp Products: NONE.

Vapor Pressure (MM Hg/70 F): N/A
Vapor Density (Air=1): N/A
Specific Gravity: 1.0 G/CC
Evaporation Rate And Ref: NOT APPLICABLE
Solubility In Water: APPRECIABLE

Hazardous Poly Occur: NO
Conditions To Avoid (Poly): NOT RELEVANT.

Ingredients Proprietary: NO Ingredient: SODIUM MONOHYDROGEN PHOSPHATE HEPTAHYDRATE (2:1:1:7); (SODIUM PHOSPHATE) Ingredient Sequence Number: 01 NIOSH (RTECS) Number: WC4600000 CAS Number: 7682-85-6 OSHA PEL: NOT APPLICABLE ACGIH TLV: NOT APPLICABLE Proprietary: NO Ingredient: PEROXYDICARBONIC ACID, DISODIUM SALT; (SODIUM CARBONATE) Ingredient Sequence Number: 02 NIOSH (RTECS) Number: SD9920000 CAS Number: 3313-92-6 OSHA PEL: NOT APPLICABLE ACGIH TLV: NOT APPLICABLE Proprietary: NO Ingredient: NONIONIC SURFACTANTS Ingredient Sequence Number: 03 NIOSH (RTECS) Number: 1000978NS OSHA PEL: NOT APPLICABLE ACGIH TLV: NOT APPLICABLE Proprietary: NO Ingredient: HYPOCHLOROUS ACID, SODIUM SALT; (CHLORINE BLEACH) Ingredient Sequence Number: 04 NIOSH (RTECS) Number: NH3486300 CAS Number: 7681-52-9 OSHA PEL: NOT APPLICABLE	Ingredient: SILICIC ACID (H₂SiO₃), DISODIUM SALT; (SODIUM SILICATE) Ingredient Sequence Number: 05 NIOSH (RTECS) Number: VV9275000 CAS Number: 6834-92-0 OSHA PEL: NOT APPLICABLE ACGIH TLV: NOT APPLICABLE Proprietary: NO Ingredient: SODIUM SULFATE (2:1) Ingredient Sequence Number: 06 NIOSH (RTECS) Number: WE1650000 CAS Number: 7757-82-6 OSHA PEL: NOT APPLICABLE ACGIH TLV: NOT APPLICABLE Proprietary: NO Ingredient: SUDS CONTROL AGENT Ingredient Sequence Number: 07 NIOSH (RTECS) Number: 1005257SC OSHA PEL: NOT APPLICABLE ACGIH TLV: NOT APPLICABLE Proprietary: NO Ingredient: COLORANT Ingredient Sequence Number: 08 NIOSH (RTECS) Number: 1001827CO OSHA PEL: NOT APPLICABLE ACGIH TLV: NOT APPLICABLE Proprietary: NO Ingredient: PERFUME, TYPE UNSPECIFIED Ingredient Sequence Number: 09 NIOSH (RTECS) Number: 1000511PU
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ACGIH TLV: NOT APPLICABLE
Proprietary: NO

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OSHA PEL: NOT APPLICABLE
ACGIH TLV: NOT APPLICABLE

Health Hazards Data

LD50-LC50 Mixture: NONE SPECIFIED BY MANUFACTURER.

Route Of Entry - Inhalation: YES

Route Of Entry - Skin: YES

Route Of Entry - Ingestion: YES

Health Haz Acute And Chronic: INGEST:MAY CAUSE VOMITING AND TRANSIENT, MODERATE GI IRRITATION. EYE:MAY CAUSE MODERATE, TRANSIENT IRRITATION. INHAL:HEAVY OR PROLONGED EXPOSURE TO DUST MAY CAUSE TRANSIENT RESPIRATORY TRACT IRRITATION. SKIN:TRANSIENT IRRITATION WITH PROLONGED EXPOSURE TO CONCENTRATED MATERIAL.

Carcinogenicity - NTP: NO

Carcinogenicity - IARC: NO

Carcinogenicity - OSHA: NO

Explanation Carcinogenicity: NOT RELEVANT.

Signs/Symptoms Of Overexp: INGEST:MAY RESULT IN NAUSEA, VOMITING, AND/OR DIARRHEA. EYE:MAY CAUSE STINGING, TEARING, ITCHING, SWELLING AND/OR REDNESS. INHAL:MAY CAUSE COUGHING, SORE THROAT, WHEEZING, OR TRANSITORY SHORTNESS OF BREATH. SKIN:CONTACT WITH CONCENTRATED MATERIAL MAY BE DRYING OR TRANSIENTLY IRRITATING TO SKIN.

Med Cond Aggravated By Exp: NONE SPECIFIED BY MANUFACTURER.

Emergency/First Aid Proc: INGEST:DRINK A GLASSFUL OF WATER OR MILK. IF PROLONGED CONTACT OCCURS, RINSE THOROUGHLY WITH WATER. IF SYMPTOMS PERSIST OR REOCCUR, GET MD.

Handling and Disposal

Steps If Matl Released/Spill: COLLECT & PLACE IN SUITABLE CONTAINER & DISPOSE AS DRY SCRAP, OR FLUSH WITH WATER DOWN ACCEPTABLE SEWER (CONTAINS BIODEGRADABLE SURFACTANTS). PREVENT SPILLS FROM REACHING A WATERWAY. PREVENT HEAVY EXPOSURE TO DUST WITH NIOSH/MSHA APPROVED DUST MASK. Neutralizing Agent: NONE SPECIFIED BY MANUFACTURER. Waste Disposal Method: DISPOSAL IS TO BE PERFORMED IN COMPLIANCE W/ALL LOC, STATE & FED REGS. SMALL OR HOUSEHOLD QTYS MAY BE DISPOSED OF IN REFUSE OR IN SEWER. LARGER QUANTITIES OF CONTAMINATED OR WASTE MATL MAY BE DISPOSED OF IN MUNICIPAL LANDFILL WHERE ALLOWED BY LAW. PRECAUTIONS-HANDLING/STORING: NO UNUSUAL PRECAUTIONS NECESSARY. AVOIDCONTACT OF CARTONS WITH MOISTURE TO AVOID DISPENSING PROBLEMS. Other Precautions: CAUTION:HARMFUL IF SWALLOWED. EYE IRRITANT. KEEP OUT OF REACH OF CHILDREN.

Fire and Explosion Hazard Information

Flash Point: NOT APPLICABLE Lower Explosive Limit: N/A Upper Explosive Limit: N/A
Extinguishing Media: CO*2, WATER, OR DRY CHEMICAL.
Special Fire Fighting Proc: WEAR NIOSH/MSHA APPROVED SCBA AND FULL PROTECTIVE EQUIPMENT (FP N). Unusual Fire And Expl Hazrds: NONE.

Control Measures

Respiratory Protection: NONE REQUIRED WITH NORMAL USE. NIOSH/MSHA APPROVED RESPIRATOR APPROPRIATE FOR EXPOSURE OF CONCERN (FP N).
Ventilation: NORMAL/GENERAL DILUTION VENTILATION IS ACCEPTABLE.
Protective Gloves: RUBBER/NEOPRENE GLOVES FOR PRLNGD USE.
Eye Protection: CHEMICAL WORKERS GOGGLES (FP N). Other Protective Equipment: NONE REQUIRED WITH NORMAL USE.
Work Hygienic Practices: NONE SPECIFIED BY MANUFACTURER.
Suppl. Safety & Health Data: NONE SPECIFIED BY MANUFACTURER.

Transportation Data

Trans Data Review Date: 92128 DOT PSN Code: ZZZ DOT Proper Shipping Name: NOT REGULATED BY THIS MODE OF TRANSPORTATION
IMO PSN Code: ZZZ IMO Proper Shipping Name: NOT REGULATED FOR THIS MODE OF TRANSPORTATION
IATA PSN Code: ZZZ IATA Proper Shipping Name: NOT REGULATED BY THIS MODE OF TRANSPORTATION
AFI PSN Code: ZZZ AFI Prop. Shipping Name: NOT REGULATED BY THIS MODE OF TRANSPORTATION
Additional Trans Data: NOT REGULATED FOR TRANSPORTATION

Cheer

PROCTER & GAMBLE -- CHEER

SIGNS & SYMPTOMS OF EXPOSURE

- Health Haz Acute And Chronic: INGEST:MAY CAUSE VOMITING AND TRANSIENT,MODERATE GI IRRITATION.
- EYE:MAY CAUSE MODERATE, TRANSIENT IRRITATION.
- INHAL:HEAVY OR PROLONGED EXP TO DUST MAY CAUSE TRANSIENT RESPIRATORY TRACT IRRITATION.
- SKIN:TRANSIENT IRRITATION WITH PROLONGED EXPOSURE TO CONCENTRATED MATERIAL.
- Signs/Symptoms Of Overexp: INGEST:MAY RESULT IN NAUSEA, VOMITING, AND/ OR DIARRHEA.
- EYE:MAY CAUSE STINGING, TEARING, ITCHING, SWELLING AND/OR REDNESS.
- INHAL:MAY CAUSE COUGHING, SORE THROAT, WHEEZING, OR TRANSITORY SHORTNESS OF BREATH.
- SKIN:CONTACT WITH CONCENTRATED MATERIAL MAY BE DRYING OR TRANSIENTLY IRRITATING SKIN.

FIRST AID

- **Emergency Telephone Number: 24hr P&G Operator - 1-800-846-7669 or call Local Poison Control Center**
- Inhalation: Leave dusty area. In rare cases a respiratory reaction can occur which may include
- tightness of chest and difficulty breathing. If this occurs, seek medical attention immediately.

-
- Ingestion: Give a large glassful of water or milk.
 - Eye Contact: Flush thoroughly with water for 15 minutes.
 - Skin: Rinse skin thoroughly with water.
 - **Other:** Consumer product packages have a caution statement: "CAUTION: EYE IRRITANT. MAY BE HARMFUL IF SWALLOWED. In case of eye contact, flush with water. If swallowed, give a glassful of water or milk.
 - Call a physician. KEEP OUT OF REACH OF CHILDREN."

PRODUCT MONOGRAM

PROCTER & GAMBLE -- CHEER

MSDS Safety Information

MSDS #: FH/H/2001/LDLS-522GKL Issue Date: 9/7/01
 Supersedes: FH/H/2001/LDLS-4XBUK2 Issue Date: 6/12/01
 All intentionally-present components are listed on the US TSCA Inventory. No components are affected by Significant New Use Rules (SNURs) under TSCA §5.
 Cheer is not subject to labeling under California Proposition 65.
 Sodium Carbonate (497-19-8) is listed on the Canadian WHMIS Ingredient Disclosure List (IDL) as item number 1431, with a threshold concentration of 1%.
 All ingredients are CEPA approved for import to Canada by Procter & Gamble. This product has been classified with Hazard Criteria of the Canadian Controlled Products Regulation (CPR) and this MSDS contains all information required by the Canadian Products Regulation. *N/A - Not Applicable *N/K - Not Known The submission of this MSDS may be required by law, but this is not an assertion that the substance is hazardous when used in accordance with prop only in connection with occupational safety and health. The information contained herein has been compiled from sources considered by Procter & Gamble to be dependable and is accurate to the best of the Company's knowledge. The information relates to the specific material designated herein, and does not relate to the use in combination with any other material or any other process. Procter & Gamble assumed no responsibility for injury to the recipient or third persons,

Contractor Summary

Procter & Gamble
 Fabric and Home Care Division
 Ivorydale Technical Center
 5299 Spring Grove Avenue
 Cincinnati, OH 45217-1087

CHEMICAL PRODUCT

Name Common CAS No. Recommended Limits
 Composition Range LD50/LC50
 Sodium, carbonate Soda Ash 497-19-8 N/A 15-40% LD50=1.86 g/kg
 LC50=N/A Linear alkyl, Benzene, sulfonate C12.3 LAS 68081-81-2 N/A 7-13% LD50=0.65-1.26 g/kg LC50=N/A Subtilisin Proteolytic, enzyme
 9014-01-1 NIOSH/ ACGIH STEL:0.00006 mg/m3 0.1-1% LD50=3.7 g/kg
 LC50=N/A
 Identity: **Granular Laundry Detergent**
 Brands: **CHEER (All variations)**
 Hazard Rating: Health: 1 4=EXTREME
 Flammability: 0 3=HIGH
 Reactivity: 0 2= MODERATE
 1=SLIGHT

for any damage to any property resulting from misuse of the controlled product.

Emergency Telephone Number: 24hr P&G Operator - 1-800-846-7669 or call Local Poison Control Center

Ingredients

COMPOSITION AND INGREDIENTS

Cheer Ingredients/Chemical Name: Biodegradable surfactants and enzymes. Cheer with Bleach Ingredients/Chemical Name: Biodegradable surfactants, enzymes and a color-safe oxygen bleach. Hazardous Ingredients as defined by OSHA, 29 CFR 1910.1200. Chemical **TOXICOLOGICAL INFORMATION** LD50 (rats oral): 2.8 - 7.1 g/kg ED50 approx. 15-120 mg/kg **ECOLOGICAL INFORMATION** No concerns at relevant environmental concentrations.

Physical/Chemical Properties

Boiling Point □F: N/A **Specific Gravity (H₂O=1)**: N/A
Vapor Pressure (mm Hg): N/A **Percent Volatile by Volume (%)**: N/A **Vapor Density (Air=1)**: N/A **Evaporation Rate (nBuOAc=1)**: N/A **Odor Threshold**: N/A **Reserve Alkalinity**: 4-5 **Coefficient of Water/Oil Distribution**: N/A **pH (10% solution)**: 10 - 11 **Scooped Density**: ~590 - 663 g/L **Solubility in Water**: Mostly Cheer **Appearance and Odor**: White granular agglomerate. Product is perfumed.
Cheer w/ Bleach Appearance and Odor: White granular agglomerate with blue speckles. Product is perfumed.

Health Hazards Data

Under normal consumer use, this product would not constitute a hazardous product under US OSHA Hazard Communication. With increased exposure (compared with consumer use) this mixture, when tested as a whole, is considered an inhalation hazard (enzymes) and an eye irritant within the meaning of the OSHA Hazard Communication Standard. *Subtilisin is listed on Table Z-1-A (1989 Air Contaminants Rule - 29 CFR 1910.1000). Though Table Z-1-A was revoked on 6/30/93, the following U.S. states continue to enforce Table Z-1-A limits: Alaska, Connecticut, Michigan, Minnesota, New York, Tennessee, Vermont and Eye Contact: May cause mild, transient irritation. Inhalation: Heavy exposure to dust may cause transient respiratory tract irritation. Prolonged heavy exposure to dust may cause respiratory sensitization. **Signs and Symptoms of Exposure**: Ingestion: Possible mild gastrointestinal irritation with nausea, vomiting, and/or diarrhea. Eye Contact: Eye contact with the product or its aqueous solution may produce transient superficial irritation. Skin: N/A Inhalation: N/A

Handling and Disposal

Precautions To Be Taken in Handling and Storing: Avoid skin contact and breathing product dust. Store in a cool, dry place. Keep product dry to maintain free-flowing granules. **Other Precautions**: None

Waste Disposal Method: DISPOSAL IS TO BE PERFORMED IN COMPLIANCE WITH ALL FEDERAL,

The logo for Starfield Resources Inc. is located in the top left corner. It features a dark blue rectangular background with a subtle, wavy white line running horizontally across it. The text "STARFIELD" is written in a large, bold, yellow sans-serif font, and "RESOURCES INC." is written in a smaller, yellow sans-serif font directly below it.

STARFIELD RESOURCES INC.

STATE AND LOCAL REGS. Household solutions may be disposed of in sewer. Dry product may be landfilled. Discard empty container in trash.

Fire and Explosion Hazard Information Flash Point (Method Used): N/A Explosive Limits: LEL: N/A UEL: N/A Extinguishing Media: N/A Special Fire Fighting Procedures: CO₂, water or dry chem. Conditions to Avoid: Open flame Incompatibility (Materials to Avoid): None known Hazardous Decomposition/By Products: None known Hazardous Polymerization: May Occur: Will Not Occur: X Conditions to Avoid: Open flame Possible Hazardous Reactions/Conditions: None known Conditions to Avoid: Open flame Materials to Avoid: None Hazardous Decomposition Products: None known Other Recommendations: None	Control Measures Personal Precautions: Minimize dust levels while collecting product (see "Inhalation" health effects). Prevent exposure to dust with NIOSH approved respirators with HEPA filters. Use gloves to minimize skin contact. Environmental Precautions: DISPOSAL IS TO BE PERFORMED IN COMPLIANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS. Household solutions may be disposed of in sewer. Dry product may be landfilled if permitted by local regulations. Discard empty container in trash. Steps To Be Taken in Case Material is Released or Spilled: Flush small quantities down acceptable sanitary/process sewer. Wipe up small spills with a damp cloth. Dispose of according to local regulations. Respiratory Protection (Specify Type): None required with normal consumer use. Industrial use may require a NIOSH approved respirator with HEPA filters. Ventilation Local Exhaust: None required with normal consumer use. Special: None Industrial use may require LEV. Mechanical (General): General dilution ventilation is adequate Other: None with normal consumer use. Eye Protection: None required with normal consumer use. Industrial setting: If a splash of product in solution is likely, chemical goggles may be needed. Protective Gloves: None required with normal consumer use. Industrial Setting: Protective gloves (rubber, neoprene) should be used for any prolonged direct contact. Other Protective Equipment: None required with normal consumer use. Industrial Setting: Protective disposable suits may be required under heavy industrial dust conditions.
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Clorox

THE CLOROX -- CLOROX 2 - BLEACH, LAUNDRY

SIGNS & SYMPTOMS OF EXPOSURE

- Acute And Chronic: MODERATE EYE IRRITANT. HARMFUL IF SWALLOWED.
- INHALATION OF LARGE QUANTITIES OF DUST MAY CAUSE SENSITIZATION.
- SENSITIZATION SYMPTOMS MAY RANGE FROM HAY FEVER TO ASTHMA.
- Signs/Symptoms Of Overexp: SEE HEALTH HAZARDS.
- Med Cond Aggravated By Exp: NONE.

FIRST AID

- SKIN: FLUSH W/COPIOUS AMOUNTS OF WATER. CALL MD
- (FP N). EYE: FLUSH WITH WATER FOR @ LEAST 15 MINUTES.
- INGEST: DRINK GLASSFUL OF WATER & CALL PHYS.
- INHAL: REMOVE TO FRESH AIR IF BREATHING PROBLEMS DEVELOP.
- IF BREATHING PROBLEMS PERSIST, SEEK PROMPT MEDICAL ATTENTION.
- Company's Emerg Ph #: 303-573-1014

PRODUCT MONOGRAM

THE CLOROX -- CLOROX 2 - BLEACH, LAUNDRY

MSDS Safety Information

NSN: 6850010141324
 Manufacturer's CAGE: 93098
 Part No. Indicator: B
 Part Number/Trade Name: CLOROX 2

Contractor Summary

Item Name: BLEACH, LAUNDRY Company's Name: THE CLOROX
 CO
 Company's Street: 7200 JOHNSON DR Company's City:
 PLEASANTON
 Company's State: CA Company's Country: US Company's Zip
 Code: 94566
 Company's Emerg Ph #: 303-573-1014
 Company's Info Ph #: 415-847-6100
 Record No. For Safety Entry: 006 Tot Safety Entries This Stk#: 007
 Status: SMJ
 Date MSDS Prepared: 01MAY90 Safety Data Review Date:
 21FEB95
 MSDS Serial Number: BWRCG Hazard Characteristic Code: NK

Ingredients

Proprietary: NO

Ingredient: PERBORIC ACID, SODIUM SALT, TETRAHYDRATE; (SODIUM PERBORATE

Ingredient Sequence Number: 01 Percent: 5-25 NIOSH (RTECS) Number: SC7350000 CAS Number: 10486-00-7 OSHA PEL: N/K (FP N)
ACGIH TLV: N/K (FP N)

Proprietary: NO

Ingredient: BACILLUS SUBTILIS BPN; (SUBTILISINS - PROTEOLYTIC) CONTAINING INGS 3 & 4

Ingredient Sequence Number: 02 Percent: 0.5-2 NIOSH (RTECS) Number: CO9450000 CAS Number: 1395-21-7 OSHA PEL: C 0.00006
MG/M3

ACGIH TLV: C 0.00006 MG/M3

Proprietary: NO

Ingredient: ESPERASE (MFR INVALID CAS # 9072-77-2)

Ingredient Sequence Number: 03 NIOSH (RTECS) Number: 1012378EE OSHA PEL: N/K (FP N) ACGIH TLV: N/K (FP N)

Proprietary: NO

Ingredient: BACILLUS SUBTILIS CARLSBERG; (SAVINASE)

Ingredient Sequence Number: 04 NIOSH (RTECS) Number: CO9550000 CAS Number: 9014-01-1 OSHA PEL: C,0.00006 MG/M3 ACGIH
TLV: C 0.00006 MG/M3

Proprietary: NO

Ingredient: AMYLASE ENZYME; (AMYLASE) Ingredient Sequence Number: 05 Percent: <0.5 NIOSH (RTECS) Number: 1010333AE CAS
Number: 9000-90-2 OSHA PEL: N/K (FP N) ACGIH TLV: N/K (FP N)

Health Hazards Data

LD50-LC50 Mixture: NONE SPECIFIED BY MANUFACTURER. Route Of Entry - Inhalation: YES Route Of Entry - Skin: YES Route Of Entry - Ingestion: YES Health Haz Acute And Chronic: MODERATE EYE IRRITANT. HARMFUL IF SWALLOWED. INHALATION OF LARGE QUANTITIES OF DUST MAY CAUSE SENSITIZATION. SENSITIZATION SYMPTOMS MAY RANGE FROM HAY FEVER TO ASTHMA. Carcinogenicity - NTP: NO Carcinogenicity - IARC: NO Carcinogenicity - OSHA: NO Explanation Carcinogenicity: NOT RELEVANT. Signs/Symptoms Of Overexp: SEE HEALTH HAZARDS. Med Cond Aggravated By Exp: NONE. Emergency/First Aid Proc: SKIN: FLUSH W/COPIOUS AMOUNTS OF WATER. CALL MD (FP N). EYE: FLUSH WITH WATER FOR @ LEAST 15 MINUTES. INGEST: DRINK GLASSFUL OF WATER & CALL PHYS. INHAL: REMOVE TO FRESH AIR IF BREATHING PROBLEMS DEVELOP. IF BREATHING PROBLEMS PERSIST, SEEK PROMPT MEDICAL ATTENTION.

Physical/Chemical Characteristics

Appearance And Odor: NONE SPECIFIED BY MANUFACTURER. Vapor Density (Air=1): 1.00 Evaporation Rate And Ref: NOT KNOWN Solubility In Water: NOT KNOWN PH: SUPDAT

Handling and Disposal

Stability: YES Cond To Avoid (Stability): NONE SPECIFIED BY MANUF.. Materials To Avoid: REACTS WITH ACIDS TO FORM HEAT & GASES. Hazardous Decom Products: NONE SPECIFIED BY MANUFACTURER. Hazardous Poly Occur: NO Conditions To Avoid (Poly): NOT RELEVANT. Steps If Matl Released/Spill: RINSE WITH WATER. FLUSH SM QTYS (LESS THAN 2 LBS) DOWN DRAIN W/PLENTY OF WATER. FOR LARGER QTYS DISPOSE OF I/AW LOCAL, STATE AND FEDERAL REGULATIONS. Neutralizing Agent: NONE SPECIFIED BY MANUFACTURER. Waste Disposal Method: DISPOSAL MUST BE I/AW FEDERAL, STATE & LOCAL REGULATIONS (FP N). Precautions-Handling/Storing: KEEP OUT OF REACH OF CHILDREN. AVOID MAKING DUST. STORE IN COOL, DRY AREA. KEEP AWAY FROM HEAT & ACIDS WHEN STORED IN LARGE QUANTITIES. Other Precautions: AVOID SKIN AND EYE CONTACT AND INHALATION OF DUST.

Fire and Explosion Hazard Information

Extinguishing Media: MEDIA SUITABLE FOR SURROUNDING FIRE (FP N). Special Fire Fighting Proc: USE NIOSH/MSHA APPROVED SCBA & FULL PROTECTIVE EQUIPMENT (FP N). Unusual Fire And Expl Hazrds: NOT FLAMMABLE OR EXPLOSIVE

Control Measures

Respiratory Protection: NIOSH/MSHA APPROVED RESPIRATOR APPROPRIATE FOR EXPOSURE OF CONCERN (FP N).

Ventilation: USE GENERAL VENTILATION TO MINIMIZE EXPOSURE TO DUST. Protective Gloves: IMPERVIOUS GLOVES (FP N).

Eye Protection: ANSI APPRVD SAFETY GLASSES (FP N). Other Protective Equipment: ANSI APPRVD EMER EYE BATH & DELUGE SHOWER (FPN).

Work Hygienic Practices: NONE SPECIFIED BY MANUFACTURER. Suppl. Safety & Health Data: PH:11.1 (1% SOLN).

Comet With Bleach.

Comet with Bleach

PROCTER & GAMBLE – COMET CLEANER WITH BLEACH

SIGNS & SYMPTOMS OF EXPOSURE

- Ingestion: Oral ingestion may result in mild gastrointestinal irritation with nausea, vomiting or diarrhea.
- Eye Contact:
 - Prolonged skin contact or direct contact with eye may result in superficial, temporary irritation similar to those produced by other household detergents.
- Skin: Use on irritated or extremely dry skin aggravate the existing condition.
- Inhalation: N.A.

FIRST AID

- Ingestion: Immediately drink two large glasses of water and treat symptomatically.
- If large amounts are ingested, call a physician.
- Eye Contact: Immediately flush with large amounts of water for at least 15 minutes, lifting upper and lower lids occasionally.
- Skin: Thoroughly was exposed area with soap and water and discontinue use. Remove contaminated clothing.
- Inhalation: N.A.

-
- **Other:** Product package has a caution statement: CAUTION: KEEP OUT OF REACH OF CHILDREN. May cause eye irritation. In case of eye contact, flush thoroughly with water. If irritation persists, see a physician.
 - If swallowed, drink a glass of water to dilute. Do not mix with other products especially toilet bowl cleansers and products that contain ammonia.

PRODUCT MONOGRAM

PROCTER & GAMBLE – COMET CLEANER WITH BLEACH

MSDS Safety Information

All components are listed on the US TSCA Inventory. No components are affected by Significant New Use Rules (SNURs) under TSCA §5. No components of Comet are subject to California Proposition 65. required by the Canadian Products Regulation.

OTHER INFORMATION *N/A. - Not Applicable *N/K. - Not Known The submission of this MSDS may be required by law, but this is not an assertion that the substance is hazardous when used in accordance with proper safety practices and normal handling procedures. Data supplied is for use only in connection with occupational safety and health. The information contained herein has been compiled from sources considered by Procter & Gamble to be dependable and is accurate to the best of the Company's knowledge. The information relates to the specific material designated herein, and does not relate to the use in combination with any other material or any other process. Procter & Gamble assumed no responsibility for injury to the recipient or third persons, for any damage to any property resulting from misuse of the controlled product.

Ingredients

Ingredients/Chemical Name: Cleaning agents, bleach (sodium hypochlorite), surface safety agent, perfume and water. This mixture, when tested as a whole, is considered an eye irritant within the meaning of the OSHA Communication Standard **Hazardous Ingredients as defined by OSHA, 29 CFR 1910.1200**. Chemical Name Common Name CAS No. Recommended Limits Composition Range, LD50/LC50, Sodium, hypochlorite Bleach 7681-52-9 ACGIH STEL: 2mg/m³ 0. 5-1 5% Sodium, hydroxide, Caustic soda 1310-73-2 ACGIH STEL: 2 mg/m³ OSHA PEL: 2 mg/m³ 0.1-1%

Contractor Summary

Procter & Gamble

CPG TN 6

2 Procter & Gamble Plaza

Cincinnati, OH 45202

EPA CERCLA TITLE III

Chemical Name CERCLA304 RQ (LBS) 311/312 313

Sodium hypochlorite 100 no no

Sodium hydroxide 1000 no no

All ingredients are CEPA approved for import to Canada by Procter & Gamble.

This product has been classified

with Hazard Criteria of the Canadian Control Products Regulation (CPR) and this

MSDS contains all information

Physical/Chemical Properties

Identity: Liquid Cleanser/Brands: COMET CLEANER with BLEACH

(Professional Line) Hazard Rating: 1 Health: 1 4=EXTREME

Flammability: 3=HIGH Reactivity: 2= MODERATE 1=SLIGHT

Emergency Telephone Number: 24hr P&G Operator - 1-513-983-1100 or call Local

Poison Control Center Boiling Point □F: N/A Specific Gravity (H₂O=1): 1.030-

1.045 Vapor Pressure (mm Hg): N/A Percent Volatile by Volume (%): N/A

Vapor Density (Air=1): N/A Evaporation Rate (nBuOAc=1): N/A

Physical/Chemical Properties Odor Threshold: N/A Freezing Point: N/A

Coefficient of Water/Oil Distribution: N/A pH (1% solution) Unknown

Scooped Density: N/A **Solubility in Water:** Completely Appearance and Odor
Clear liquid Product is perfumed. **Reserve Alkalinity:** N/A **TOXICOLOGICAL
INFORMATION** LD50 (rats oral): >6.5 g/kg

Health Hazards Data

(Acute and Chronic): Ingestion: Mild mucous membrane irritant. Eye Contact: Mild eye irritant. Inhalation: Mild mucous membrane irritant. Skin: Mild skin irritant. Possible Hazardous Reactions/Conditions: None known Conditions to Avoid: None Materials to Avoid: None **Hazardous Decomposition Products:** None known **Other Recommendations:** None

Handling and Disposal

Personal Precautions: None **Environmental Precautions:** DISPOSAL IS TO BE PERFORMED IN COMPLIANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS. Do not landfill. Small quantities may be disposed of via sewer. **Steps To Be Taken in Case Material is Released or Spilled:** Use water spray or dilute and/or wash away spills to avoid exposure and to protect persons working to stop/repair leak. **Precautions To Be Taken in Handling and Storing:** Handling and storage must be well ventilated, cool, and dry. Materials must be isolated from potential sources of ignition. Fire fighting equipment must be available at all times. **Other Precautions:** Keep away from heat/sparks and open flame **Waste Disposal Method:** Do not landfill. Small quantities may be disposed of via sewer. DISPOSAL IS TO BE PERFORMED IN COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS. **TRANSPORT INFORMATION DOT Classification:** Comet Cleaner with Bleach is not DOT hazardous. Bulk product shipments are classified as Class 9 Hazardous Substance with a shipping name of Environmentally hazardous substance, liquid n.o.s.

Fire and Explosion Hazard Information

Flash Point (Method Used): over 200°F (cc) **Explosive Limits:** LEL: N/A UEL: N/A **Extinguishing Media:** CO2, water, dry chemical or "alcohol" foam **Special Fire Fighting Procedures:** Use water to keep fire exposed container cool. **Unusual Fire Hazards:** None known. **Stability** Unstable: Stable: X **Conditions to Avoid:** None known **Incompatibility (Materials to Avoid):** Do not mix with other products, especially toilet bowl cleaners, acidic cleaners or products that contain ammonia. **Hazardous Decomposition/By Products:** None **Hazardous Polymerization:** May Occur: **Will Not Occur:** X Conditions to Avoid: None known

Control Measures

Respiratory Protection (Specify Type): None required with normal use. **Ventilation** Local Exhaust: None required with normal use. **Special:** None
Mechanical (General): Acceptable. **Other:** None **Eye Protection:** None required with normal use. **Industrial Setting:** For splash protection, use chemical goggles.
Eye wash fountain is desirable. **Protective Gloves:** None required with normal use. **Other Protective Equipment:** None required with normal use.

**Comet Cleaner
With Chlorinoll**

Comet Cleaner with Chlorinoll

PROCTER & GAMBLE – COMET CLEANER WITH CHLORINOLL

SIGNS & SYMPTOMS OF EXPOSURE

- Ingestion: Oral ingestion may result in gastrointestinal irritation with nausea, vomiting and diarrhea.
- Eye Contact: Prolonged skin contact or direct contact with eye may result in superficial, temporary irritation similar to those produced by other household detergents.
- Skin: Prolonged skin contact or direct contact with eye may result in superficial, temporary irritation similar to those produced by other household detergents.
- Inhalation: No hazards under normal conditions of product use or within the occupational exposure guidelines. Unusually high exposures may cause coughing or irritation of nose and throat.

FIRST AID

- **Emergency Telephone Number: 24hr P&G Operator - 1-513-983-1100 or call Local Poison Control Center**
- Ingestion: Dilute with fluids and treat symptomatically.
- Eye Contact: For accidental eye contact, flush thoroughly with water for 15 minutes.
- Skin: Wash with soap and water and discontinue use.
- Inhalation: For accidental, high level inhalation, remove to fresh air. Get medical attention if coughing persists.
- **Other:** Product package has a caution statement: **CAUTION: KEEP OUT OF REACH OF CHILDREN.** May cause eye irritation. In case of eye contact, flush thoroughly with water. If irritation persists, see a physician.

-
- If swallowed, drink a glass of water to dilute. Do not mix with other products especially toilet bowl cleansers and products that contain ammonia.

PRODUCT MONOGRAM

PROCTER & GAMBLE – COMET CLEANER WITH CHLORINOL

MSDS Safety Information OTHER INFORMATION *N/A. - Not Applicable *N/K. - Not Known The submission of this MSDS may be required by law, but this is not an assertion that the substance is hazardous when used in accordance with proper safety practices and normal handling procedures. Data supplied is for use only in connection with occupational safety and health. The information contained herein has been compiled from sources considered by Procter & Gamble to be dependable and is accurate to the best of the Company's knowledge. The information relates to the specific material designated herein, and does not relate to the use in combination with any other material or any other process. Procter & Gamble assumed no responsibility for injury to the recipient or third persons, for any damage to any property resulting from misuse of the controlled product.	Contractor Summary Procter & Gamble CPG TN 6 2 Procter & Gamble Plaza Cincinnati, OH 45202 ADDITIONAL REGULATORY INFORMATION All components are listed on the US TSCA Inventory. No components are affected by Significant New Use Rules (SNURs) under TSCA §5. This product is an EPA registered pesticide EPA Reg. No.# 3573-51 No components of Comet are subject to California Proposition 65. All ingredients are CEPA approved for import to Canada by Procter & Gamble. This product has been classified with Hazard Criteria of the Canadian Control Products Regulation (CPR) and this MSDS contains all information required by the Canadian Products Regulation.
Ingredients Ingredients/Chemical Name: Bleach, cleaning agents (calcium carbonate, sodium carbonate, anionic surfactants), quality control agents, perfume, color. Comet Disinfectant Cleanser with Chlorinol contains no phosphorus. Hazardous Ingredients as defined by OSHA, 29 CFR 1910.1200. Chemical Name, Common Name CAS No. Recommended Limits Composition	Physical/Chemical Properties Identity: Disinfectant Powder Cleanser Brands: COMET DISINFECTANT CLEANSER with CHLORINOL (Professional Line) Hazard Rating: 1 Health: 1 4=EXTREME - Flammability: 3=HIGH Reactivity: 2= MODERATE - 1=SLIGHT Emergency Telephone Number: 24hr P&G Operator - 1-513-983-1100 or call Local Poison Control Center

Range

LD50/LC50

Calcium carbonate, Limestone 1317-65-3 ACGIH TWA: 10mg/m3 (total dust) /5 mg/m3(respirable dust) OSHA PEL: 15 mg/m3 60-100%

Silica, quartz Quartz (naturally occurring component of limestone) 14808-60-7 ACGIH TWA: 0.1mg/m3 (respirable dust) OSHA TWA: 0.1 mg/m3 0.1-1%

Boiling Point □F: N/A **Specific Gravity (H2O=1):** ca. 1
Vapor Pressure (mm Hg): N/A **Percent Volatile by Volume (%):** ca. 1
Vapor Density (Air=1): N/A **Evaporation Rate (nBuOAc=1):** N/A
Odor Threshold: N/A **Freezing Point:** N/A
Coefficient of Water/Oil Distribution: N/A **pH (1% solution):** N/A
Scooped Density: N/A **Solubility in Water:** Moderately
Appearance and Odor: Green powder, cedar pine scent.
Reserve Alkalinity: N/A

Health Hazards Data

(Acute and Chronic):

Ingestion: Mild mucous membrane irritant., Eye Contact: Mild eye irritant., Inhalation: Mild respiratory irritant, Skin: Mild skin irritant.

TOXICOLOGICAL INFORMATION

Calcium carbonate, an ingredient of this product, contains small amounts of crystalline silica (quartz) as a naturally occurring impurity. Prolonged, excessively high exposures to respirable crystalline silica may result in reduced lung function in some individuals. IARC has found sufficient evidence to classify crystalline silica as a carcinogen in animals, but there is limited evidence in humans. LD50 (rats oral): 9 g/kg ED50: 0.23 g/kg

Handling and Disposal

Environmental Precautions: DISPOSAL IS TO BE PERFORMED IN COMPLIANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS. Product contains biodegradable surfactant. If permitted, flush down sewer drain with large excess of water or dispose of at landfill.

Steps To Be Taken in Case Material is Released or Spilled: Vacuum to remove spill and place in trash container for disposal or flush with water. Do not dry sweep.

Precautions To Be Taken in Handling and Storing: Avoid moisture when storing to prevent loss of bleaching action and to prevent caking.
Other Precautions: None required.

Waste Disposal Method: Product contains biodegradable surfactant. If permitted, flush down sewer drain with large excess of water or dispose of at landfill. DISPOSAL IS TO BE PERFORMED IN COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.

TRANSPORT INFORMATION DOT Classification: Comet cleanser is not DOT hazardous, and is not regulated under the DOT Hazardous Material Regulations (49 CFR, parts 171-180) which govern the sale and transport of hazardous materials.

Fire and Explosion Hazard Information

Flash Point (Method Used): N/A **Explosive Limits:** LEL: N/A UEL: N/A **Extinguishing Media:** Use CO2, water, or dry chemical. **Special Fire Fighting Procedures:** None required. **Unusual Fire Hazards:** None known. **Stability** Unstable: Stable: X **Conditions to Avoid:** None known **Incompatibility (Materials to Avoid):** Ammonia and acids. **Hazardous Decomposition/By Products:** Chlorine gas. **Hazardous Polymerization:** May Occur:
Will Not Occur: X **Conditions to Avoid:** None known

Control Measures

EXPOSURE CONTROLS, PERSONAL PROTECTION

Respiratory Protection (Specify Type): None required with normal use. For bulk handling or other dusty conditions, use respiratory protection approved by NIOSH for dust. **Ventilation** Local Exhaust: None required with normal consumer use. **Special:** None **Mechanical (General):** Acceptable. Other: None

Eye Protection: None required with normal consumer use. **Industrial Setting:** For splash protection, use chemical goggles.

Protective Gloves: None required with normal use. **Other Protective Equipment:** None required with normal use.

**Comet Creme
Disinfectant Cleanser**

Comet Crème Disinfectant Cleanser

PROCTER & GAMBLE – COMET CRÈME DISINFECTANT CLEANSER

SIGNS & SYMPTOMS OF EXPOSURE

- Skin: Use on irritated or extremely dry skin may aggravate the existing condition
- Eye Contact: Instillation into the eye may result in transient mild to moderate irritation.
- Ingestion: Oral ingestion may result in gastrointestinal irritation with nausea, vomiting and diarrhea.

FIRST AID

- **Emergency Telephone Number: 24hr P&G Operator - 1-513-983-1100 or call Local Poison Control Center**
- Eye Contact: Flush with water for at least 15 minutes.
- Skin: Wash with soap and water and discontinue use.
- Ingestion: Dilute with fluids and treat symptomatically.
- **Other:** Product package has a caution statement: CAUTION: KEEP OUT OF REACH OF CHILDREN.
- In case of eye contact, flush thoroughly with water. If irritation persists, see a physician.
- Do not mix with other products especially toilet bowl cleansers and products that contain ammonia.

PRODUCT MONOGRAM

PROCTER & GAMBLE – COMET CRÈME DISINFECTANT CLEANSER

MSDS Safety Information

OTHER INFORMATION *N/A. - Not Applicable *N/K. - Not Known
The submission of this MSDS may be required by law, but this is not an assertion that the substance is hazardous when used in accordance with proper safety practices and normal handling procedures. Data supplied is for use only in connection with occupational safety and health. The information contained herein has been compiled from sources considered by Procter & Gamble to be dependable and is accurate to the best of the Company's knowledge. The information relates to the specific material designated herein, and does not relate to the use in combination with any other material or any other process. Procter & Gamble assumed no responsibility for injury to the recipient or third persons, for any damage to any property resulting from misuse of the controlled product.

Ingredients

Ingredients/Chemical Name: Abrasives, sodium hypochlorite, sodium carbonate, anionic surfactant, water, perfume and colorants.
This mixture, when tested as a whole, is considered an eye irritant within the meaning of the OSHA Hazard Communication Standard
Hazardous Ingredients as defined by OSHA, 29 CFR 1910.1200.
Chemical

Contractor Summary

Procter & Gamble
CPG TN 6, 2 Procter & Gamble Plaza, Cincinnati, OH 45202
All components are listed on the US TSCA Inventory. No components are affected by Significant New Use Rules (SNURs) under TSCA §5. This product is an EPA registered pesticide EPA Reg. No. # 3573-46, No components of Comet are subject to California Proposition 65.
EPA CERCLA TITLE III - Chemical Name CERCLA 304 RQ (LBS) 311/312 313, Sodium hypochlorite 100 no. no. All ingredients are CEPA approved for import to Canada by Procter & Gamble. This product has been classified with Hazard Criteria of the Canadian Control Products Regulation (CPR) and this MSDS contains all information required by the Canadian Products Regulation

Physical/Chemical Properties

Identity: Disinfectant Cleanser Brands: COMET CREME DISINFECTANT CLEANSER (Professional Line)
Hazard Rating: 1 Health: 1 4=EXTREME - Flammability: 3=HIGH
Reactivity: 2= MODERATE - 1=SLIGHT Emergency Telephone Number: 24hr P&G Operator - 1-513-983-1100 or call Local Poison Control Center
Boiling Point °F: N/A **Specific Gravity (H2O=1):** 1.08
Vapor Pressure (mm Hg): N/A **Percent Volatile by Volume (%):** 80%

Name Common, Name CAS No. Recommended Limits Composition
 Range LD50/LC50
 Sodium, carbonate, Soda ash 497-19-8 N/A 5-12% LD50, 1.86g/kg
 Perlite Perlite 93763-70-3 ACGIH TWA=10 mg/m3 5-10%, Sodium
 Hypochlorite, Bleach 7681-52-9 AIHA STEL 2 mg/m3 0.5% (label)

Vapor Density (Air=1): N/A Evaporation Rate (nBuOAc=1): N/A Odor
 Threshold: N/A Freezing Point: N/A Coefficient of Water/Oil Distribution:
 N/A pH (25% slurry): 11.0-11.2 Scooped Density: N/A Solubility in
 Water: Moderate Appearance and Odor: Opaque green liquid. Product is
 perfumed. Reserve Alkalinity: N/A
STABILITY AND REACTIVITY Possible Hazardous
 Reactions/Conditions: None known Conditions to Avoid: None Materials
 to Avoid: None Hazardous Decomposition Products: Chlorine gas Other
 Recommendations: None

Health Hazards Data

(Acute and Chronic):

Skin: Mild skin irritant.

Eye Contact: Mild eye irritant.

Ingestion: Mild mucous membrane irritant.

TOXICOLOGICAL INFORMATION LD50 (rats oral): >20g/kg **ECOLOGICAL INFORMATION** None

Handling and Disposal

Personal Precautions: None

Environmental Precautions: DISPOSAL IS TO BE PERFORMED IN COMPLIANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS. Do not landfill. Small quantities may be disposed of via sewer.

Steps To Be Taken in Case Material is Released or Spilled: Sweep up and dispose or flush with large excess of water.

Precautions To Be Taken in Handling and Storing: Avoid excessive heat (over 110°F) when storing to prevent loss of bleaching/germicidal action.

Other Precautions: None required.

DISPOSAL CONSIDERATIONS

Waste Disposal Method: Product contains biodegradable surfactants. If permitted, flush down sewer drain with large excess of water or dispose of at landfill. DISPOSAL IS TO BE PERFORMED IN COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.

TRANSPORT INFORMATION DOT Classification: The product, as sold, is classified as non-hazardous.

Fire and Explosion Hazard Information

Flash Point (Method Used): over 212°F (cc) **Explosive Limits:** LEL: N/A UEL: N/A **Extinguishing Media:** CO2, water or dry chemical

Special Fire Fighting Procedures: None known **Unusual Fire Hazards:** None known **Stability Unstable:** Stable: X **Conditions to Avoid:** None known

Incompatibility (Materials to Avoid): Ammonia or acid **Hazardous Decomposition/By Products:** Chlorine gas **Hazardous Polymerization:** May Occur: Will Not Occur: X **Conditions to Avoid:** None known

Control Measures

Respiratory Protection (Specify Type): None required with normal use. **Ventilation** Local Exhaust: None required with normal use. **Special:** None
Mechanical (General): Acceptable. **Other:** None **Eye Protection:** None required with normal use. **Industrial Setting:** For splash protection, use chemical goggles.
Eye wash fountain is desirable. **Protective Gloves:** None required with normal use. **Other Protective Equipment:** None required with normal use.

Oven Cleaner

RECKITT & COLMAN INC -- EASY-OFF FUME FREE OVEN CLEANER (AEROSOL)

SIGNS & SYMPTOMS OF EXPOSURE

- ACUTE: MAY CAUSE TRANSIENT EYE DISCOMFORT. CHRONIC: THE
- PRODUCT HAS NOT BEEN TESTED AS A WHOLE FOR CHRONIC EFFECTS.
- Explanation Of Carcinogenicity: NOT RELEVANT.
- Signs And Symptoms Of Overexposure: SEE HEALTH HAZARDS.
- Medical Cond Aggravated By Exposure: NONE KNOWN.

FIRST AID

- THERE IS NO SPECIFIC ANTIDOTE. EYES: FLUSH WITH POTABLE WATER FOR AT LEAST 15 MINUTES. SEE MD (FP N).
- SKIN: TREATMENT OF OVEREXPOSURE SHOULD BE DIRECTED AT THE CONTROL OF SYMPTOMS AND THE CLINICAL CONDITION. FLUSH WITH COPIOUS AMOUNTS OF WATER. SEE MD (FP N).
- INHALATION: REMOVE TO FRESH AIR. SUPPORT BREATHING (GIVE OXYGEN OR ARTIFICIAL RESPIRATION) (FP N).
- INGESTION: CALL MD IMMEDIATELY (FP N)
- **Emergency Phone Number: 800-424-9300 (CHEMTREC).**

PRODUCT MONOGRAM

RECKITT & COLMAN INC -- EASY-OFF FUME FREE OVEN CLEANER (AEROSOL)

MSDS Safety Information

FSC: 7930
 MSDS Date: 02/13/1993
 MSDS Num: CBNCV
 LIIN: 00N071097
 Product ID: EASY-OFF FUME FREE OVEN CLEANER (AEROSOL)
 MFN: 01
 Responsible Party
 Cage: RECKI
 Name: RECKITT & COLMAN INC
 Box: 943
 City: WAYNE NJ 07474-0943
 Info Phone Number: 201-633-6700
 Emergency Phone Number: 800-424-9300 (CHEMTREC)
 Published: Y

Contractor Summary

Cage: RECKI
 Name: RECKITT & COLMAN HOUSEHOLD PRODUCTS
 Address: UNKNOWN
 Box: 941
 City: WAYNE NJ 07474-0941
 Phone: 201-633-6700

Ingredients

Cas: 75-28-5
 RTECS #: TZ4300000
 Name: ISOBUTANE (PROPANE, 2-METHYL-;)
 % Wt: 1-10
 OSHA PEL: 1900 MG/M3 (MFR)
 ACGIH TLV: 1900 MG/M3 (MFR)

Physical/Chemical Properties

Spec Gravity: 1.05-1.10 PH: 9.5-10 Solubility in Water: DISPERSES
 Appearance and Odor: MILKY WHITE OPAQUE FOAM WHEN
 SPRAYED, WITH LEMON ODOR Percent Volatiles by Volume: 80
 Reactivity Data
 Stability Indicator: YES
 Stability Condition To Avoid: NONE KNOWN.

Cas: 1317-65-3
 RTECS #: EV9580000
 Name: CALCIUM CARBONATE
 % Wt: 1-10
 OSHA PEL: 15 MG/M3 TDUST
 ACGIH TLV: 10 MG/M3 TDUST

Materials To Avoid: DO NOT USE ON CONTINUOUS CLEANING OVENS. CAN BE USED ON SELF-CLEANING OVENS IF SELF-CLEANING CYCLE IS NOT USED (SUP DAT) Hazardous Decomposition Products: NONE KNOWN.
 Hazardous Polymerization Indicator: NO

Health Hazards Data

LD50 LC50 Mixture: NONE SPECIFIED BY MANUFACTURER.

Route Of Entry Inds - Inhalation: NO

Skin: NO

Ingestion: NO

Carcinogenicity Inds - NTP: NO

IARC: NO

OSHA: NO

Handling and Disposal

Spill Release Procedures: IN CASE OF LEAKAGE OR SPILLAGE: SOAK UP WITH ABSORBENT MATERIAL.

Neutralizing Agent: NONE SPECIFIED BY MANUFACTURER.

Waste Disposal Methods: DISCARD ABSORBED MATL IN TRASH COLLECTION. CONSUMER

DISP: WRAP CONTR & PUT IN TRASH COLLECTION. LGE QTY DISP: DEGAS CANS & COLLECT LIQ CONTENTS/ACCUMULATE INTACT CANS FOR TRANSPORT TO SHREDDER, APPRVD INCIN/OTHER FACILITY I/AW FED, STATE & LOC LAW.

Handling And Storage Precautions: KEEP OUT OF THE REACH CHILDREN. DO NOT PUNCTURE OR INCINERATE CONTAINER. DO NOT EXPOSE TO HEAT OR STORE AT TEMPERATURES ABOVE 120F. AVOID FREEZING. Other Precautions: NONE SPECIFIED BY MANUFACTURER.

Fire and Explosion Hazard Information

Extinguishing Media: USE MEDIA SUITABLE FOR SURROUNDING FIRE (FP N).

Fire Fighting Procedures: WEAR NIOSH/MSHA APPROVED SCBA & FULL PROTECTIVE EQUIPMENT (FP N). Unusual Fire/Explosion Hazard: NOT A FIRE HAZARD.

Control Measures

Respiratory Protection: USE NIOSH/MSHA APPROVED RESPIRATOR APPROPRIATE FOR EXPOSURE OF CONCERN (FP N).
Ventilation: NONE. Protective Gloves: IMPERVIOUS GLOVES (FP N). Eye Protection: ANSI APPROVD CHEM WORKERS GOGGS (FP N).

Other Protective Equipment: EMERGENCY EYEWASH & DELUGE SHOWER MEETING ANSI DESIGN CRITERIA (FP N).
Work Hygienic Practices: NONE SPECIFIED BY MANUFACTURER. Supplemental Safety and Health: MATLS TO AVOID: & TEMP DOES NOT EXCEED

475F. DO NOT SPRAY ONTO PILOT LIGHT, ELEC CONNECTIONS SWITCHES, LIGHT BULBS, HEATING ELEMENTS, THERMOSTATS.

Light Distillate

LIGHT DISTILLATE IMPERIAL OIL

SIGNS & SYMPTOMS OF EXPOSURE INHALATION

- Negligible hazard at normal temperatures (up to 38 deg C), High vapour concentrations are irritating to the eyes, nose, throat and lungs; may cause headaches and dizziness; may be anesthetic and may cause other central nervous system effects. Avoid breathing vapours or mists

EYE CONTACT

- Slightly irritating, but will not injure eye tissue

SKIN CONTACT:

- Low toxicity, irritating

INGESTION:

- Low toxicity. Small amounts of this liquid drawn into the lungs from swallowing or vomiting may cause severe health effects (e.g. bronchopneumonia or pulmonary edema).

FIRST AID Emergency 24 hr. (519) 339-2145 IMPERIAL OIL

INHALATION

- In emergency situations use proper respiratory protection to immediately remove the affected victim from exposure. administer artificial respiration if breathing has stopped. Keep at rest. Call for prompt medical attention.

EYE CONTACT:

- Flush eyes with large amounts of water until irritation subsides. If irritation persists, get medical attention.

SKIN CONTACT

- Immediately flush with large amounts of water. Use soap if available. Remove contaminated clothing, including shoes, after flushing has begun. If irritation persists, seek medical attention

INGESTION:

- DO NOT induce vomiting since it is important that no amount of the material should enter the lungs (aspiration). Keep at rest. Get prompt medical attention.

PRODUCT MONOGRAM

LIGHT DISTILLATE IMPERIAL OIL

MSDS Safety Information

IMPERIAL OIL

CAUTION: " The information contained herein relates only to this product or material and may not be valid when used in combination with any other product or material or in any process. If the product is not to be used for a purpose or under conditions which are normal or reasonably foreseeable, this information cannot be relied upon as complete or applicable. For greater certainty, uses other than those described in Section 1 must be reviewed with the supplier. The information contained herein is based on the information available at the indicated date of preparation. This MSDS is for the use of Imperial Oil customers and their employees and agents only. Any further distribution of this MSDS by Imperial Oil customers is prohibited without the written consent of Imperial Oil."

Contractor Summary

Emergency 24 hr. (519) 339-2145 IMPERIAL OIL
Technical Info. (800) 268-3183 Products Division
111 St Clair Avenue West
Toronto, Ontario
M5W 1K3
(416) 968-4441 (800) 268-3183
Shipping Name: FUEL OIL
Class: 3
Packing Group: III
PIN Number UN1202
CEPA: CANADIAN ENVIRONMENTAL PROTECTION ACT All components of this product are either on the Domestic Substances List (DSL) or are exempt.

Ingredients

A complex mixture of aliphatic, olefinic, naphthenic and aromatic hydrocarbons, and additives

Physical/Chemical Properties

Physical State: Liquid
Specific gravity: not available
Viscosity: 170 cSt at 40 deg C
Vapour Density: not available
Boiling Point: 180 to 320 deg C
Evaporation rate: <1 (1= n-butylacetate)
Solubility in water: negligible Freezing/Pour Point: -39 deg C ASTM

D97

Odour Threshold: not available

Vapour Pressure: <1 kPa at 38 deg C Density: 0.85 g/cc at 15 deg C

Appearance/odour: White or pale yellow liquid, petroleum odour

Kerosene, straight run 0-100 V/V 8008-20-6 LD50:>5g/kg,oral,rat

Light Atmospheric Gas Oil 0-100 V/V 64741-44-2

Light Hydrocracked Distillate 0-100 V/V 64741-77-1

Health Hazards Data

INHALATION Negligible hazard at normal temperatures (up to 38 deg C), High vapour concentrations are irritating to the eyes, nose, throat and lungs; may cause headaches and dizziness; may be anesthetic and may cause other central nervous system effects. Avoid breathing vapours or mists **EYE CONTACT** Slightly irritating, but will not injure eye tissue **SKIN CONTACT:** Low toxicity **Irritating INGESTION:** Low toxicity. Small amounts of this liquid drawn into the lungs from swallowing or vomiting may cause severe health effects (e.g. bronchopneumonia or pulmonary edema). **CHRONIC:** Lifetime skin painting tests indicate that materials of similar composition have produced skin cancer in experimental animals. The relationship of these results to humans has not been fully established.

ACUTE TOXICITY DATA:

Based on animal testing data from similar materials and products, the acute toxicity of this product is expected to be: Oral: LD50 > 5000 mg/kg (Rat)

Dermal LD50 > 2000 mg/kg (Rabbit) Inhalation LC50 > 2500 mg/m3 (Rat)

OCCUPATIONAL EXPOSURE LIMIT Manufacturer recommends: 100 ppm based on composition. Local regulated limits may vary.

Handling and Disposal

TDG INFORMATION (RAIL/ROAD)

Keep containers closed. Handle and open containers with care. Store in a cool, well ventilated place away from incompatible materials. In keeping with good personal hygiene practices, wash hands thoroughly after handling the material. Do not handle or store near an open flame, sources of heat, or sources of ignition.

Material will accumulate static charges which may cause a spark. Static charge build-up could become an ignition source. Use proper relaxation and grounding procedures. Empty containers may contain product residue. Do not pressurize cut, heat, or weld empty containers. Do not reuse empty containers without commercial cleaning or reconditioning.

LAND SPILL: Eliminate source of ignition. Keep public away. Prevent additional discharge of material, if possible to do so without hazard. Prevent spills from entering sewers, watercourses or low areas. Contain spilled liquid with sand or earth. Do not use combustible materials such as sawdust. Recover by pumping (use an explosion proof motor or hand pump), or by using a suitable absorbent. Consult an expert on disposal of recovered material. Ensure disposal in compliance with government requirements and ensure conformity to local disposal regulations. Notify the appropriate authorities immediately. Take all additional action necessary to prevent and remedy the adverse effects of the spill.

WATER SPILL: Remove from surface by skimming or with suitable absorbents. If allowed by local authorities and environmental agencies, sinking and/or suitable dispersants may be used in unconfined waters. Consult an expert on disposal of recovered material. Ensure disposal in compliance with government requirements and ensure conformity to local disposal regulations. Notify the appropriate authorities immediately. Take all additional action necessary to prevent and remedy the adverse effects of the spill.

Fire and Explosion Hazard Information

WHMIS Class B, Division 3: Combustible Liquids

Class D, Division 2, Subdivision B: Toxic Material

Flashpoint and method: 40 deg C PMCC ASTM D93

Autoignition: NA Flammable Limits: LEL: NA UEL: NA

GENERAL HAZARDS

Combustible Liquid; may form combustible mixtures at or above the flash point. Toxic gases will form upon combustion. Static Discharge; material may accumulate static charges which may cause a fire.

FIRE FIGHTING:

Use water spray to cool fire exposed surfaces and to protect personnel. Shut off fuel to fire. Use foam, dry chemical or water spray to extinguish fire. Respiratory and eye protection required for fire fighting personnel. Avoid spraying water directly into storage containers due to danger of boilover. A self-contained breathing apparatus (SCBA) should be used for all indoor fires and any significant outdoor fires. For small outdoor fires, which may easily be extinguished with a portable fire extinguisher, use of an SCBA may not be required.

HAZARDOUS COMBUSTION PRODUCTS

Smoke, carbon monoxide, carbon dioxide, oxides of sulphur. In addition, small amounts of nitrogen oxides will be formed.

REACTIVITY DATA

STABILITY

This product is stable. Hazardous polymerization will not occur.

INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID

Strong oxidizing agents. Use product with caution around heat, sparks, pilot lights, static electricity and open flames.

HAZARDOUS DECOMPOSITION

none

NOTES

All components of this product are listed on the U.S. TSCA inventory.

Control Measures

The selection of personal protective equipment varies, depending upon conditions of use. In open systems where contact is likely, wear safety goggles, chemical-resistant overalls, and chemically impervious gloves. Where only incidental contact is likely, wear safety goggles, long sleeves, and chemical-resistant gloves.

Where concentrations in air may exceed the occupational exposure limits given in Section 4 and where engineering, work practices or other means of exposure reduction are not adequate, approved respirators may be necessary to prevent overexposure by inhalation.

ENGINEERING CONTROLS:

The use of local exhaust ventilation is recommended to control emissions near the source. Laboratory samples should be handled in a fumehood. Provide mechanical ventilation of confined spaces.

Middle Distillate

IMPERIAL OIL - MIDDLE DISTILLATE

SIGNS & SYMPTOMS OF EXPOSURE

- High vapour concentrations are irritating to the eyes, nose, throat and lungs; may cause headaches and dizziness; may be anesthetic and may cause other central nervous system effects
- Small amounts of this liquid drawn into the lungs from swallowing or vomiting may cause severe health effects (e.g. bronchopneumonia or pulmonary edema).

FIRST AID

INHALATION:

- In emergency situations use proper respiratory protection to immediately remove the affected victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest. Call for prompt medical attention.

EYE CONTACT:

- Flush eyes with large amounts of water until irritation subsides. If irritation persists, get medical attention.

SKIN CONTACT:

- Immediately flush with large amounts of water. Use soap if available. Remove contaminated clothing, including shoes, after flushing has begun. If irritation persists, seek medical attention.

INGESTION:

- DO NOT induce vomiting since it is important that no amount of the material should enter the lungs (aspiration). Keep at rest. Get prompt medical attention.
- **Emergency 24 hr. (519) 339-2145 IMPERIAL OIL**

PRODUCT MONOGRAM

IMPERIAL OIL - MIDDLE DISTILLATE

MSDS Safety Information

CAUTION: " The information contained herein relates only to this product or material and may not be valid when used in combination with any other product or material or in any process. If the product is not to be used for a purpose or under conditions which are normal or reasonably foreseeable, this information cannot be relied upon as complete or applicable. For greater certainty, uses other than those described in Section 1 must be reviewed with the supplier. The information contained herein is based on the information available at the indicated date of preparation. This MSDS is for the use of Imperial Oil customers and their employees and agents only. Any further distribution of this MSDS by Imperial Oil customers is prohibited without the written consent of Imperial Oil."

Contractor Summary

Emergency 24 hr. (519) 339-2145 IMPERIAL OIL
Technical Info. (800) 268-3183 Products Division
111 St Clair Avenue West
Toronto, Ontario
M5W 1K3
(416) 968-4441

WHMIS:

Class B, Division 3: Combustible Liquids.
Class D, Division 2, Subdivision B: Toxic Material
CEPA: CANADIAN ENVIRONMENTAL PROTECTION ACT
All components of this product are either on the Domestic Substances List (DSL) or are exempt.

Ingredients

A complex mixture of aliphatic, olefinic, naphthenic and aromatic hydrocarbons

Physical/Chemical Properties

REGULATED COMPONENTS

NAME % CAS #

Fuel Oil No.2 >99.9 V/V 68476-30-2
Physical State: Liquid Specific gravity: 0.820 to 0.900 at 15.5 deg C
Viscosity: 1.30 cSt at 40 deg C to 11.00 cSt at 40 deg C
Vapour Density: 4 Boiling Point: 150 to 370 deg C
Evaporation rate: <1 (1= n-butylacetate)
Solubility in water: negligible Freezing/Pour Point: -4 deg C -39 (RANGE)
Odour Threshold: not available Vapour Pressure: 4 kPa at 38 deg

C

Appearance/odour: White or pale yellow liquid, petroleum odour

Health Hazards Data

INHALATION:

Negligible hazard at normal temperatures (up to 38 deg C). High vapour concentrations are irritating to the eyes, nose, throat and lungs; may cause headaches and dizziness; may be anesthetic and may cause other central nervous system effects. Avoid breathing vapours or mists. **EYE CONTACT:** Slightly irritating, but will not injure eye tissue.

SKIN CONTACT: Low toxicity. Irritating. **INGESTION:** Low toxicity. Small amounts of this liquid drawn into the lungs from swallowing or vomiting may cause severe health effects (e.g. bronchopneumonia or pulmonary edema).

CHRONIC: Lifetime skin painting tests indicate that materials of similar composition have produced skin cancer in experimental animals. The relationship of these results to humans has not been fully established.

ACUTE TOXICITY DATA: Based on animal testing data from similar materials and products, the acute toxicity of this product is expected to be:

Oral : LD50 > 5000 mg/kg (Rat) Dermal : LD50 > 2000 mg/kg (Rabbit) Inhalation : LC50 > 2500 mg/m3 (Rat)

OCCUPATIONAL EXPOSURE LIMIT: Manufacturer recommends: 100 ppm based on composition. Local regulated limits may vary.

Handling and Disposal

TDG INFORMATION (RAIL/ROAD):

Shipping Name: FUEL OIL Class: 3 Packing Group: III PIN Number: UN1202

Please be aware that other regulations may apply. Keep containers closed. Handle and open containers with care. Store in a cool, well ventilated place away from incompatible materials. In keeping with good personal hygiene practices, wash hands thoroughly after handling the material. Do not handle or store near an open flame, sources of heat, or sources of ignition. Material will accumulate static charges which may cause a spark. Static charge build-up could become an ignition source. Use proper relaxation and grounding procedures. Empty containers may contain product residue. Do not pressurize, cut, heat, or weld empty containers. Do not reuse empty containers without commercial cleaning or reconditioning.

LAND SPILL:

Eliminate source of ignition. Keep public away. Prevent additional discharge of material, if possible to do so without hazard. Prevent spills from entering sewers, watercourses or low areas. Contain spilled liquid with sand or earth. Do not use combustible materials such as sawdust. Recover by pumping (use an explosion proof motor or hand pump), or by using a suitable absorbent. Consult an expert on disposal of recovered material. Ensure disposal in compliance with government requirements and ensure conformity to local disposal regulations. Notify the appropriate authorities immediately. Take all additional action necessary to prevent and remedy the adverse effects of the spill.

WATER SPILL:

Remove from surface by skimming or with suitable absorbents. If allowed by local authorities and environmental agencies, sinking and/or suitable dispersants may be used in unconfined waters. Consult an expert on disposal of recovered material. Ensure disposal in compliance with government requirements and ensure conformity to local disposal regulations. Notify the appropriate authorities immediately. Take all additional action necessary to prevent and remedy the adverse effects of the spill.

Fire and Explosion Hazard Information

Flashpoint and method: >40 deg C PMCT ASTM D93 Autoignition: NA Flammable Limits: LEL: 0.7% UEL: 6.5%

GENERAL HAZARDS:

Combustible Liquid; may form combustible mixtures at or above the flash point. Toxic gases will form upon combustion. Static Discharge; material may accumulate static charges which may cause a fire.

FIRE FIGHTING:

Use water spray to cool fire exposed surfaces and to protect personnel. Shut off fuel to fire. Use foam, dry chemical or water spray to extinguish fire.

Respiratory and eye protection required for fire fighting personnel. Avoid spraying water directly into storage containers due to danger of boilover. A self-contained breathing apparatus (SCBA) should be used for all indoor fires and any significant outdoor fires. For small outdoor fires, which may easily be extinguished with a portable fire extinguisher, use of an SCBA may not be required.

HAZARDOUS COMBUSTION PRODUCTS:

Smoke, carbon monoxide, carbon dioxide and traces of oxides of sulphur

REACTIVITY DATA

STABILITY: This product is stable. Hazardous polymerization will not occur.

INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID: Strong oxidizing agents **HAZARDOUS DECOMPOSITION:** none

Control Measures

PERSONAL PROTECTION:

The selection of personal protective equipment varies, depending upon conditions of use. In open systems where contact is likely, wear safety goggles, chemical-resistant overalls, and chemically impervious gloves. Where only incidental contact is likely, wear safety goggles, long sleeves, and chemical-resistant gloves.

Where concentrations in air may exceed the occupational exposure limits given in Section 4 and where engineering, work practices or other means of exposure reduction are not adequate, approved respirators may be necessary to prevent overexposure by inhalation.

ENGINEERING CONTROLS:

The use of local exhaust ventilation is recommended to control emissions near the source. Laboratory samples should be handled in a fumehood. Provide mechanical ventilation of confined spaces.

Gas-Unleaded

IMPERIAL OIL: GAS - UNLEADED

SIGNS & SYMPTOMS OF EXPOSURE

- **INHALATION:** High vapour concentrations are irritating to the eyes, nose, throat and lungs; may cause headaches and dizziness; may be anesthetic and may cause other central nervous system effects
- **SKIN CONTACT** Low toxicity. Frequent or prolonged contact may irritate the skin and cause a skin rash (dermatitis).
- **INGESTION:** Low toxicity. Small amounts of this liquid drawn into the lungs from swallowing or vomiting may cause severe health effects (e.g. bronchopneumonia or pulmonary edema).

FIRST AID

Emergency 24 hr. (519) 339-2145 IMPERIAL OIL

INHALATION:

- In emergency situations use proper respiratory protection to immediately remove the affected victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest. Call for prompt medical attention.

EYE CONTACT:

- Flush eyes with large amounts of water until irritation subsides. If irritation persists, get medical attention.

SKIN CONTACT:

- Flush with large amounts of water. Use soap if available. Remove severely contaminated clothing (including shoes) and launder before reuse. If irritation persists, seek medical attention.

INGESTION:

- DO NOT induce vomiting since it is important that no amount of the material should enter the lungs (aspiration). Keep at rest. Get prompt medical attention.

PRODUCT MONOGRAM

IMPERIAL OIL: GAS - UNLEADED

MSDS Safety Information

CAUTION: " The information contained herein relates only to this product or material and may not be valid when used in combination with any other product or material or in any process. If the product is not to be used for a purpose or under conditions which are normal or reasonably foreseeable, this information cannot be relied upon as complete or applicable. For greater certainty, uses other than those described in Section 1 must be reviewed with the supplier. The information contained herein is based on the information available at the indicated date of preparation. This MSDS is for the use of Imperial Oil customers and their employees and agents only. Any further distribution of this MSDS by Imperial Oil customers is prohibited without the written consent of Imperial Oil."

WHMIS:

Class D, Division 2, Subdivision A: Very Toxic Material.
Class B, Division 2: Flammable Liquids.

Contractor Summary

Emergency 24 hr. (519) 339-2145 IMPERIAL OIL
Technical Info. (800) 268-3183 Products Division
111 St Clair Avenue West
Toronto, Ontario
M5W 1K3
(416) 968-4441 CEPA: CANADIAN ENVIRONMENTAL
PROTECTION ACT
All components of this product are either on the Domestic
Substances
List (DSL), exempt, or have been notified under Section 26 of
CEPA.
DG INFORMATION (RAIL/ROAD):
Shipping Name: Gasoline
Class: 3
Packing Group: II
PIN Number: UN1203

Ingredients

A mixture of aliphatic and aromatic hydrocarbons and additives

Gasoline >99 V/V 8006-61-9 LD50>18ml/kg, orl, rat LD50>

Physical/Chemical Properties

Physical State: Liquid Specific gravity: not available
Viscosity: 0.80 cSt at 20 deg C
Vapour Density: 3.2 Boiling Point: 25 to 210 deg C

5ml/kg, skn, rbt

Methyl T-Butyl Ether 0-15 V/V 1634-04-4 LD50:3.9g/Kg,ing, rat
LD50:>10g/Kg, skn, rbt

Evaporation rate: >10 (1= n-butylacetate) Solubility in water: negligible
Freezing/Pour Point: -60 deg C less than Odour Threshold: not available
Vapour Pressure: 76 kPa to 103 kPa at 38 deg C Density: 0.73 g/cc at 15 deg C
Appearance/odour: Naturally occurring water white or pale yellow; may be dyed a variety of colours for tax or other purposes; petroleum odour.
LC50:142Mg/L, inh, rat

Health Hazards Data**INHALATION:**

High vapour concentrations are irritating to the eyes, nose, throat and lungs; may cause headaches and dizziness; may be anesthetic and may cause other central nervous system effects. Avoid breathing vapours or mists.

EYE CONTACT:

Slightly irritating, but will not injure eye tissue. **SKIN CONTACT:** Low toxicity. Frequent or prolonged contact may irritate the skin and cause a skin rash (dermatitis).

INGESTION: Low toxicity. Small amounts of this liquid drawn into the lungs from swallowing or vomiting may cause severe health effects (e.g. bronchopneumonia or pulmonary edema).

CHRONIC:

The International Agency for Research on Cancer (IARC) has evaluated gasoline and found it to be a possible human carcinogen. Contains benzene. Human health studies (epidemiology) indicate that prolonged and/or repeated overexposures to benzene may cause damage to the blood producing system and serious blood disorders, including leukemia. Animal tests suggest that prolonged and/or repeated overexposures to benzene may damage the embryo/fetus. The relationship of these animal studies to humans has not been fully established. Contains n-hexane. Prolonged and/or repeated exposures may cause damage to the peripheral nervous system (e.g. fingers, feet, arms etc.). Methyl Tertiary Butyl Ether (MTBE) was tested for carcinogenicity, neurotoxicity, chronic, reproductive and developmental toxicity. The NOEL for all endpoints evaluated in three animal species was 400 ppm or greater. An increase in kidney tumors/damage and liver tumors was observed in animals exposed to high concentrations of MTBE. Some embryo/fetal toxicity and birth defects were observed in the offspring of pregnant mice exposed to maternally toxic doses of MTBE, however the offspring of exposed pregnant rabbits were unaffected. The significance of the animal findings at high exposures are not believed to be directly related to potential human health hazards in the workplace.

ACUTE TOXICITY DATA:

Based on animal testing data from similar materials and products, the acute toxicity of this product is expected to be: Oral : LD50 > 18 ml/kg (Rat)

Dermal : LD50 > 5 ml/kg (Rabbit)

OCCUPATIONAL EXPOSURE LIMIT:

Manufacturer recommends: For Benzene (skin) 1 ppm TWA for 8 hour workday. For gasoline, 300 mg/m³. For Methyl-tert-Butyl Ether, 25 ppm (90 mg/m³) 8-hour TWA and 75 ppm (270 mg/m³) 15-minute STEL. ACGIH recommends: For Gasoline, ACGIH recommends a TWA of 300 ppm (890 mg/m³) and categorizes it as an animal carcinogen. For n-Hexane (skin), 50 ppm (176 mg/m³). For Benzene, ACGIH recommends a TWA of 0.5 ppm (1.6 mg/m³), (skin), and categorizes it as a confirmed human carcinogen. For Methyl-tert-Butyl Ether, ACGIH recommends a TLV of 40 ppm (144 mg/m³) and categorizes it as an animal carcinogen. Local regulated limits may vary.

Handling and Disposal

DG INFORMATION (RAIL/ROAD):

Shipping Name: Gasoline

Class: 3

Packing Group: II

PIN Number: UN1203

Keep containers closed. Handle and open containers with care. In keeping with good personal hygiene practices, wash hands thoroughly after handling the material. Store and load at normal (up to 38 deg C) temperature and at atmospheric pressure. Material will accumulate static charges which may cause a spark. Static charge build-up could become an ignition source. Use proper relaxation and grounding procedures. For personnel entry into confined spaces (i.e. bulk storage tanks) a proper confined space entry procedure must be followed including ventilation and testing of tank atmosphere. Empty containers may contain product residue. Do not pressurize cut, heat, or weld empty containers. Do not reuse empty containers without commercial cleaning or reconditioning.

LAND SPILL:

Eliminate source of ignition. Keep public away. Prevent additional discharge of material, if possible to do so without hazard. Vapours or dust may be harmful or fatal. Warn occupants of downwind areas. Prevent spills from entering sewers, watercourses or low areas. Contain spilled liquid with sand or earth. Do not use combustible materials such as sawdust. Recover by pumping (use an explosion proof motor or hand pump), or by using a suitable absorbent. Consult an expert on disposal of recovered material. Ensure disposal in compliance with government requirements and ensure conformity to local disposal regulations. Notify the appropriate authorities immediately. Take all additional action necessary to prevent and remedy the adverse effects of the spill.

WATER SPILL:

Eliminate all sources of ignition. Vapours or dust may be harmful or fatal. Warn occupants and shipping in downwind areas. Consult an expert on disposal of recovered material. Ensure disposal in compliance with government requirements and ensure conformity to local disposal regulations. Notify the appropriate authorities immediately. Take all additional action necessary to prevent and remedy the adverse effects of the spill.

Fire and Explosion Hazard Information

Flashpoint and method: -40 deg C COC D92 less than/moins de Autoignition: NA Flammable Limits: LEL: 1.4% UEL: 7.6%

GENERAL HAZARDS:

Extremely flammable; material will readily ignite at normal temperatures. Flammable Liquid; may release vapours that form flammable mixtures at or above the flash point. Toxic gases will form upon combustion. Static Discharge; material may accumulate static charges which may cause a fire.

FIRE FIGHTING:

Use water spray to cool fire exposed surfaces and to protect personnel. Shut off fuel to fire if possible to do so without hazard. If a leak or spill has not ignited use water spray to disperse the vapours. Either allow fire to burn out under controlled conditions or extinguish with foam or dry chemical. Try to cover liquid spills with foam. Respiratory and eye protection required for fire fighting personnel. Avoid spraying water directly into storage containers due to danger of boilover.

A self-contained breathing apparatus (SCBA) should be used for all indoor fires and any significant outdoor fires. For small outdoor fires, which may easily be extinguished with a portable fire extinguisher, use of an SCBA may not be required.

HAZARDOUS COMBUSTION PRODUCTS:

Smoke, carbon monoxide, carbon dioxide under thermal decomposition.

REACTIVITY DATA

STABILITY: This product is stable. Hazardous polymerization will not occur.

INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID: Strong oxidizing agents

HAZARDOUS DECOMPOSITION:

none

PERSONAL PROTECTION:

The selection of personal protective equipment varies, depending upon conditions of use. In open systems where contact is likely, wear safety goggles, chemical-resistant overalls, and chemically impervious gloves. Where only incidental contact is likely, wear safety glasses with side shields. No other special precautions are necessary provided skin/eye contact is avoided. Where concentrations in air may exceed the occupational exposure limits given in Section 4 and where engineering, work practices or other means of exposure reduction are not adequate, approved respirators may be necessary to prevent overexposure by inhalation.

ENGINEERING CONTROLS:

The use of local exhaust ventilation is recommended to control emissions near the source. Laboratory samples should be handled in a fumehood. Provide mechanical ventilation of confined spaces. Use explosion-proof ventilation equipment.

Heating Oil

IMPERIAL OIL: HEATING OIL

SIGNS & SYMPTOMS OF EXPOSURE

- **INHALATION:** Negligible hazard at normal temperatures (up to 38 deg C). High vapour concentrations are irritating to the eyes, nose, throat and lungs; may cause headaches and dizziness; may be anesthetic and may cause other central nervous system effects. Avoid breathing vapours or mists.
- **EYE CONTACT:** Slightly irritating, but will not injure eye tissue.
- **SKIN CONTACT:** Low toxicity. Irritating.
- **INGESTION:** Low toxicity. Small amounts of this liquid drawn into the lungs from swallowing or vomiting may cause severe health effects (e.g. bronchopneumonia or pulmonary edema).

FIRST AID

Emergency 24 hr. (519) 339-2145 IMPERIAL OIL

- **INHALATION:** In emergency situations use proper respiratory protection to immediately remove the affected victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest. Call for prompt medical attention.
- **EYE CONTACT:** Flush eyes with large amounts of water until irritation subsides. If irritation persists, get medical attention.

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- **SKIN CONTACT:** Immediately flush with large amounts of water. Use soap if available. Remove contaminated clothing, including shoes, after flushing has begun. If irritation persists, seek medical attention.
 - **INGESTION:** DO NOT induce vomiting since it is important that no amount of the material should enter the lungs (aspiration). Keep at rest. Get prompt medical attention.

PRODUCT MONOGRAM

IMPERIAL OIL: HEATING OIL

MSDS Safety Information

Material and may not be valid when used in combination with any other product or material or in any process. If the product is not to be used for a purpose or under conditions which are normal or reasonably foreseeable, this information cannot be relied upon as complete or applicable. For greater certainty, uses other than those described in Section 1 must be reviewed with the supplier. The information contained herein is based on the information available at the indicated date of preparation. This MSDS is for the use of Imperial Oil customers and their employees and agents only. Any further distribution of this MSDS by Imperial Oil customers is prohibited without the written consent of Imperial Oil."

WHMIS:

Class B, Division 3: Combustible Liquids.
Class D, Division 2, Subdivision B: Toxic Material
NAME % CAS #
Fuel Oil No.2 >99.9 V/V 68476-30-2

Ingredients

A complex mixture of aliphatic, olefinic, naphthenic and aromatic hydrocarbons

Contractor Summary

Emergency 24 hr. (519) 339-2145 IMPERIAL OIL
Technical Info. (800) 268-3183 Products Division
111 St Clair Avenue West
Toronto, Ontario
M5W 1K3
(416) 968-4441

CEPA: CANADIAN ENVIRONMENTAL PROTECTION ACT
All components of this product are either on the Domestic Substances List (DSL) or are exempt.

TDG INFORMATION (RAIL/ROAD):

Shipping Name: FUEL OIL
Class: 3
Packing Group: III
PIN Number: UN1202

Physical/Chemical Properties

Physical State: Liquid
Specific gravity: 0.820 to 0.900 at 15.5 deg C
Viscosity: 1.30 cSt at 40 deg C
to 11.00 cSt at 40 deg C
Vapour Density: 4
Boiling Point: 150 to 370 deg C
Evaporation rate: <1 (1= n-butylacetate)

Solubility in water: negligible
 Freezing/Pour Point: -4 deg C -39 (RANGE)
 Odour Threshold: not available
 Vapour Pressure: 4 kPa at 38 deg C
 Appearance/odour: White or pale yellow liquid, petroleum odour

Health Hazards Data

INHALATION: Negligible hazard at normal temperatures (up to 38 deg C). High vapour concentrations are irritating to the eyes, nose, throat and lungs; may cause headaches and dizziness; may be anesthetic and may cause other central nervous system effects. Avoid breathing vapours or mists. **EYE CONTACT:** Slightly irritating, but will not injure eye tissue. **SKIN CONTACT:** Low toxicity. Irritating. **INGESTION:** Low toxicity. Small amounts of this liquid drawn into the lungs from swallowing or vomiting may cause severe health effects (e.g. bronchopneumonia or pulmonary edema). **CHRONIC:** Lifetime skin painting tests indicate that materials of similar composition have produced skin cancer in experimental animals. The relationship of these results to humans has not been fully established. **ACUTE TOXICITY DATA:** Based on animal testing data from similar materials and products, the acute toxicity of this product is expected to be:
 Oral : LD50 > 5000 mg/kg (Rat) Dermal : LD50 > 2000 mg/kg (Rabbit) Inhalation : LC50 > 2500 mg/m3 (Rat) **OCCUPATIONAL EXPOSURE LIMIT:** Manufacturer recommends: 100 ppm based on composition. Local regulated limits may vary.

Handling and Disposal

TDG INFORMATION (RAIL/ROAD): Shipping Name: FUEL OIL Class: 3 Packing Group: III PIN Number: UN1202

HANDLING, STORAGE AND SHIPPING: Keep containers closed. Handle and open containers with care. Store in a cool, well ventilated place away from incompatible materials. In keeping with good personal hygiene practices, wash hands thoroughly after handling the material. Do not handle or store near an open flame, sources of heat, or sources of ignition. Material will accumulate static charges which may cause a spark. Static charge build-up could become an ignition source. Use proper relaxation and grounding procedures. Empty containers may contain product residue. Do not pressurize cut, heat, or weld empty containers. Do not reuse empty containers without commercial cleaning or reconditioning.

LAND SPILL:

Eliminate source of ignition. Keep public away. Prevent additional discharge of material, if possible to do so without hazard. Prevent spills from entering sewers, watercourses or low areas. Contain spilled liquid with sand or earth. Do not use combustible materials such as sawdust. Recover by pumping (use an explosion proof motor or hand pump), or by using a suitable absorbent. Consult an expert on disposal of recovered material. Ensure disposal in compliance with government requirements and ensure conformity to local disposal regulations. Notify the appropriate authorities immediately. Take all additional action necessary to prevent and remedy the adverse effects of the spill.

WATER SPILL: Remove from surface by skimming or with suitable absorbents. If allowed by local authorities and environmental agencies, sinking and/or suitable dispersants may be used in unconfined waters. Consult an expert on disposal of recovered material. Ensure disposal in compliance with government requirements and ensure conformity to local disposal regulations. Notify the appropriate authorities immediately. Take all additional action necessary to prevent and remedy the adverse effects of the spill.

Fire and Explosion Hazard Information

Flashpoint and method: >40 deg C PMCT ASTM D93 Autoignition: NA Flammable Limits: LEL: 0.7% UEL: 6.5%

GENERAL HAZARDS: Combustible Liquid; may form combustible mixtures at or above the flash point. Toxic gases will form upon combustion. Static Discharge; material may accumulate static charges which may cause a fire.

FIRE FIGHTING:

Use water spray to cool fire exposed surfaces and to protect personnel. Shut off fuel to fire. Use foam, dry chemical or water spray to extinguish fire.

Respiratory and eye protection required for fire fighting personnel. Avoid spraying water directly into storage containers due to danger of boilover. A self-contained breathing apparatus (SCBA) should be used for all indoor fires and any significant outdoor fires. For small outdoor fires, which may easily be extinguished with a portable fire extinguisher, use of an SCBA may not be required.

HAZARDOUS COMBUSTION PRODUCTS:

Smoke, carbon monoxide, carbon dioxide and traces of oxides of sulphur

REACTIVITY DATA

STABILITY:

This product is stable. Hazardous polymerization will not occur. INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID: Strong oxidizing agents

HAZARDOUS DECOMPOSITION:

none

Control Measures

PERSONAL PROTECTION: The selection of personal protective equipment varies, depending upon conditions of use. In open systems where contact is likely, wear safety goggles, chemical-resistant overalls, and chemically impervious gloves. Where only incidental contact is likely, wear safety goggles, long sleeves, and chemical-resistant gloves. Where concentrations in air may exceed the occupational exposure limits given in Section 4 and where engineering, work practices or other means of exposure reduction are not adequate, approved respirators may be necessary to prevent overexposure by inhalation.

ENGINEERING CONTROLS: The use of local exhaust ventilation is recommended to control emissions near the source. Laboratory samples should be handled in a fumehood. Provide mechanical ventilation of confined spaces.

Kerosene Oil

IMPERIAL OIL: KEROSENE OIL

SIGNS & SYMPTOMS OF EXPOSURE

- **INHALATION:** Negligible hazard at normal temperatures (up to 38 deg C). High vapour concentrations are irritating to the eyes, nose, throat and lungs; may cause headaches and dizziness; may be anesthetic and may cause other central nervous system effects. Avoid breathing vapours or mists.
- **EYE CONTACT:** Slightly irritating, but will not injure eye tissue.
- **SKIN CONTACT:** Low toxicity. Irritating.
- **INGESTION:** Low toxicity. Small amounts of this liquid drawn into the lungs from swallowing or vomiting may cause severe health effects (e.g. bronchopneumonia or pulmonary edema).

FIRST AID

- **Technical Info. (800) 268-3183 Products Division**
- **Emergency 24 hr. (519) 339-2145 IMPERIAL OIL**
- **INHALATION:** In emergency situations use proper respiratory protection to immediately remove the affected victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest. Call for prompt medical attention.
- **EYE CONTACT:** Flush eyes with large amounts of water until irritation subsides. If irritation persists, get medical attention.

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- **SKIN CONTACT:** Immediately flush with large amounts of water. Use soap if available. Remove contaminated clothing, including shoes, after flushing has begun. If irritation persists, seek medical attention.
 - **INGESTION:** DO NOT induce vomiting since it is important that no amount of the material should enter the lungs (aspiration). Keep at rest. Get prompt medical attention.

PRODUCT MONOGRAM

IMPERIAL OIL: KEROSENE OIL

MSDS Safety Information

CAUTION: " The information contained herein relates only to this product or material and may not be valid when used in combination with any other product or material or in any process. If the product is not to be used for a purpose or under conditions which are normal or reasonably foreseeable, this information cannot be relied upon as complete or applicable. For greater certainty, uses other than those described in Section 1 must be reviewed with the supplier. The information contained herein is based on the information available at the indicated date of preparation. This MSDS is for the use of Imperial Oil customers and their employees and agents only. Any further distribution of this MSDS by Imperial Oil customers is prohibited without the written consent of Imperial Oil."

WHMIS:

Class B, Division 3: Combustible Liquids.
Class D, Division 2, Subdivision B: Toxic Material

Ingredients

A mixture of petroleum aliphatic, olefinic, naphthenic and aromatic hydrocarbons

Contractor Summary

Technical Info. (800) 268-3183 Products Division
111 St Clair Avenue West
Toronto, Ontario
M5W 1K3
(416) 968-4441

CEPA: CANADIAN ENVIRONMENTAL PROTECTION ACT

All components of this product are either on the Domestic Substances List (DSL) or are exempt.

TDG INFORMATION (RAIL/ROAD):

Shipping Name: Kerosene
Class: 3
Packing Group: III
PIN Number: UN1223

Physical/Chemical Properties

Physical State: Liquid Specific gravity: not available Viscosity: 1.45 cSt at 40 deg C Vapour Density: 4.5
Boiling Point: 125 to 288 deg C
Evaporation rate: not available (1= n-butylacetate)
Solubility in water: negligible
Freezing/Pour Point: -39 deg C ASTM D97

Molecular Weight: 170 to 180 Odour Threshold: 0.552mg/m³
 Vapour Pressure: 1.4 kPa at 38 deg C Density: 0.80 g/cc at 15 deg C
 Appearance/odour: Clear colourless liquid, mild petroleum odour.
 NAME % CAS #
 Kerosene, straight run 100 V/V 8008-20-6 LD50:>5g/kg,oral,rat

Health Hazards Data

INHALATION: Negligible hazard at normal temperatures (up to 38 deg C). High vapour concentrations are irritating to the eyes, nose, throat and lungs; may cause headaches and dizziness; may be anesthetic and may cause other central nervous system effects. Avoid breathing vapours or mists.

EYE CONTACT: Slightly irritating, but will not injure eye tissue.

SKIN CONTACT: Low toxicity. Irritating.

INGESTION: Low toxicity. Small amounts of this liquid drawn into the lungs from swallowing or vomiting may cause severe health effects (e.g. bronchopneumonia or pulmonary edema).

CHRONIC: Lifetime skin painting tests indicate that materials of similar composition have produced skin cancer in experimental animals. The relationship of these results to humans has not been fully established.

ACUTE TOXICITY DATA: Based on animal testing data from similar materials and products, the acute toxicity of this product is expected to be:
 Oral : LD50 > 5000 mg/kg (Rat) Dermal : LD50 > 2000 mg/kg (Rabbit) Inhalation : LC50 > 2500 mg/m³ (Rat)

OCCUPATIONAL EXPOSURE LIMIT: Manufacturer recommends: 100 ppm based on composition. local regulated limits may vary.

Handling and Disposal

TDG INFORMATION (RAIL/ROAD): Shipping Name: Kerosene Class: 3 Packing Group: III PIN Number: UN1223
HANDLING, STORAGE AND SHIPPING:

Keep containers closed. Handle and open containers with care. Store in a cool, well ventilated place away from incompatible materials. In keeping with good personal hygiene practices, wash hands thoroughly after handling the material. Store and load at normal (up to 38 deg C) temperature and at atmospheric pressure. Material will accumulate static charges which may cause a spark. Static charge build-up could become an ignition source. Use proper grounding procedures. Empty containers may contain product residue. Do not pressurize cut, heat, or weld empty containers. Do not reuse empty containers without commercial cleaning or reconditioning.

LAND SPILL:

Eliminate source of ignition. Keep public away. Prevent additional discharge of material, if possible to do so without hazard. Prevent spills from entering sewers, watercourses or low areas. Contain spilled liquid with sand or earth. Do not use combustible materials such as sawdust. Recover by pumping (use an explosion proof motor or hand pump), or by using a suitable absorbent. Consult an expert on disposal of recovered material. Ensure disposal in compliance with government requirements and ensure conformity to local disposal regulations. Notify the appropriate authorities immediately. Take all additional action necessary to prevent and remedy the adverse effects of the spill.

WATER SPILL:

Remove from surface by skimming or with suitable absorbents. If allowed by local authorities and environmental agencies, sinking and/or suitable dispersants may be used in unconfined waters. Consult an expert on disposal of recovered material. Ensure disposal in compliance with government requirements and ensure conformity to local disposal regulations. Notify the appropriate authorities immediately. Take all additional action necessary to prevent and remedy the adverse effects of the spill.

Fire and Explosion Hazard Information

Autoignition: 210 deg C Flammable Limits: LEL: 0.7% UEL: 5.0% Flashpoint and method: 40 deg C TCC ASTM D56

GENERAL HAZARDS: Combustible Liquid; may form combustible mixtures at or above the flash point. Toxic gases will form upon combustion. Static Discharge; material may accumulate static charges which may cause a fire.

FIRE FIGHTING: Use water spray to cool fire exposed surfaces and to protect personnel. Shut off fuel to fire. Use foam, dry chemical or water spray to extinguish fire. Respiratory and eye protection required for fire fighting personnel. avoid spraying water directly into storage containers due to danger of boilover. A self-contained breathing apparatus (SCBA) should be used for all indoor fires and any significant outdoor fires. For small outdoor fires, which

may easily be extinguished with a portable fire extinguisher, use of an SCBA may not be required.

HAZARDOUS COMBUSTION PRODUCTS: Smoke, carbon monoxide, carbon dioxide, oxides of sulphur. In addition, small amounts of nitrogen oxides will be formed.

REACTIVITY DATA

STABILITY: This product is stable. Hazardous polymerization will not occur.

INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID: Strong oxidizing agents. Use product with caution around heat, sparks, pilo lights, static electricity and open flames.

HAZARDOUS DECOMPOSITION:
none

Control Measures

PERSONAL PROTECTION: The selection of personal protective equipment varies, depending upon conditions of use. In open systems where contact is likely, wear safety goggles, chemical- resistant overalls, and chemically impervious gloves. Where only incidental contact is likely, wear safety goggles, long sleeves, and chemical-resistant gloves. Where concentrations in air may exceed the occupational exposure limits given in Section 4 and where engineering, work practices or other means of exposure reduction are not adequate, approved respirators may be necessary to prevent overexposure by inhalation.

ENGINEERING CONTROLS: The use of local exhaust ventilation is recommended to control emissions near the source. Laboratory samples should be handled in a fumehood. Provide mechanical ventilation of confined spaces.

Lysol Disinfectant Spray

LYSOL (R) BRAND DISINFECTANT SPRAY

SIGNS & SYMPTOMS OF EXPOSURE

- Signs/Symptoms Of Overexp: SUSCEPTIBLE INDIVIDUALS MAY EXPERIENCE DIZZINESS, DROWSINESS, NAUSEA AND VOMITING
- IF EXPOSED TO EXTREMELY HIGH CONCENTRATIONS OF THE VAPORS. MAY CAUSE MILD TEMPORARY EYE IRRITATION.
- Med Cond Aggravated By Exp: PERSONS WITH A HISTORY OF RESPIRATORY DISORDERS MAY BE AT INCREASED RISK FROM EXPOSURE.

FIRST AID

- EYES: IMMEDIATELY FLUSH WITH WATER FOR AT LEAST 15 MIN., REMOVE CONTACT LENSES TO INSURE A THOROUGH FLUSH. IF IRRITATION PERSISTS, GET MEDICAL ATTENTION. SKIN: NOT EXPECTED TO BE A PROBLEM.
- INHALATION: IF REQUIRED, REMOVE TO FRESH AIR. INGESTION: VERY UNLIKELY. ADMINISTER WATER TO DILUTE THE INGESTED MATERIAL. CONSULT PHYSICIAN. DO NOT GIVE LIQUIDS TO AN UNCONSCIOUS PERSON
- Company's Emerg Ph #: 800-424-9300 (CHEMTREC)

PRODUCT MONOGRAM

LYSOL (R) BRAND DISINFECTANT SPRAY

MSDS Safety Information

NSN: 793000B120071
 Manufacturer's CAGE: 73820 Record No. For Safety Entry: 001
 Tot Safety Entries This Stk#: 001
 Status: SE Date MSDS Prepared: 09APR91
 Safety Data Review Date: 16NOV94
 MSDS Serial Number: BLBGK Hazard Characteristic Code: F1
 CAS Number: 90-43-7 OSHA PEL: NOT ESTABLISHED
 ACGIH TLV: NOT ESTABLISHED
 Other Recommended Limit: NONE SPECIFIED

Contractor Summary

Item Name: ORIGINAL, FRESH, LIGHT, COUNTRY
 Company's Name: LEHN & FINK PRODUCTS COMPANY
 Company's Street: 225 SUMMIT AVE
 Company's City: MONTVALE
 Company's State: NJ
 Company's Country: US
 Company's Zip Code: 07645-1523
 Company's Emerg Ph #: 800-424-9300 (CHEMTREC)
 Company's Info Ph #: 201-573-5700 (24 HRS)

Ingredients

Ingredient: CARBON DIOXIDE
 Ingredient Sequence Number: 01 Percent: 4.0%
 NIOSH (RTECS) Number: FF6400000 CAS Number: 124-38-9
 OSHA PEL: 5000 PPM ACGIH TLV: 5000PPM/30000STEL,93
 Other Recommended Limit: NONE SPECIFIED
 Proprietary: NO
 Ingredient: ETHYL ALCOHOL (ETHANOL)
 Ingredient Sequence Number: 02 Percent: 79%
 NIOSH (RTECS) Number: KQ6300000
 CAS Number: 64-17-5 OSHA PEL: 1000 PPM ACGIH TLV: 1000
 PPM; 9192 Other Recommended Limit: NONE SPECIFIED
 Proprietary: NO
 Ingredient: 2-PHENYLPHENOL (SARA III)
 Ingredient Sequence Number: 03

Physical/Chemical Properties

Boiling Point: 172F,78C
 Vapor Pressure (MM Hg/70 F): 95-105PSIG
 Vapor Density (Air=1): >1
 Specific Gravity: 0.835 @ 25C
 Decomposition Temperature: UNKNOWN
 Solubility In Water: MISCIBLE pH: 10
 orrosion Rate (IPY): UNKNOWN

Percent: .1%
NIOSH (RTECS) Number: DV5775000

Health Hazards Data

LD50-LC50 Mixture: LD50 (ORAL RAT) IS UNKNOWN Route Of Entry - Inhalation: YES Route Of Entry - Skin: YES Route Of Entry - Ingestion: NO Health Haz Acute And Chronic: NONE SPECIFIED BY MANUFACTURER. Carcinogenicity - NTP: NO Carcinogenicity - IARC: NO Carcinogenicity - OSHA: NO Explanation Carcinogenicity: NONE OF THE CHEMICALS IN THIS PRODUCT IS LISTED BY IARC, NTP OR OSHA AS A CARCINOGEN. Signs/Symptoms Of Overexp: SUSCEPTIBLE INDIVIDUALS MAY EXPERIENCE DIZZINESS, DROWSINESS, NAUSEA AND VOMITING IF EXPOSED TO EXTREMELY HIGH CONCENTRATIONS OF THE VAPORS. MAY CAUSE MILD TEMPORARY EYE IRRITATION.

Med Cond Aggravated By Exp: PERSONS WITH A HISTORY OF RESPIRATORY DISORDERS MAY BE AT INCREASED RISK FROM EXPOSURE.

Emergency/First Aid Proc: EYES: IMMEDIATELY FLUSH WITH WATER FOR AT LEAST 15 MIN., REMOVE CONTACT LENSES TO INSURE A THOROUGH FLUSH. IF IRRITATION PERSISTS, GET MEDICAL ATTENTION. SKIN: NOT EXPECTED TO BE A PROBLEM. INHALATION: IF REQUIRED, REMOVE TO FRESH AIR. INGESTION: VERY UNLIKELY. ADMINISTER WATER TO DILUTE THE INGESTED MATERIAL. CONSULT PHYSICIAN. DO NOT GIVE LIQUIDS TO AN UNCONSCIOUS PERSON.

Handling and Disposal

Steps If Matl Released/Spill: WEAR PROTECTIVE EQUIPMENT, ELIMINATE SOURCES OF IGNITION, AND VENTILATE AREA AS REQUIRED. ABSORB SMALL SPILL WITH INERT MATERIAL OR DIKE TO RETAIN LARGE SPILL. PLACE WASTE IN DOT APPROVED CONTAINER FOR DISPOSAL. Waste Disposal Method: DISPOSE OF IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS. Precautions-Handling/Storing: STORE IN A COOL, DRY, WELL VENTILATED AREA AWAY FROM SOURCES OF IGNITION. KEEP CONTAINER CLOSED WHEN NOT IN USE. PROTECT FROM PHYSICAL DAMAGE.

Fire and Explosion Hazard Information

Flash Point: 70.0F, 21.1C Flash Point Method: TCC Extinguishing Media: WATER SPRAY, FOAM, DRY CHEMICAL OR CARBON DIOXIDE. USE MEDIA SUITABLE FOR SURROUNDING FIRE. Special Fire Fighting Proc: WEAR SCBA AND PROTECTIVE EQUIPMENT FOR FIGHTING A TYPICAL CHEMICAL FIRE. MOVE CONTAINERS AWAY FROM FIRE IF POSSIBLE AND SAFE TO DO SO. Unusual Fire And Expl

Hazrds: CONTENTS UNDER PRESSURE. DO NOT USE NEAR HEAT, SPARK OR OPEN FLAME. DO NOT PUNCTURE OR INCINERATE CONTAINER. EXPOSURE TO TEMP. ABOVE 120F MAY CAUSE BURSTING. Reactivity Data Stability: YES Cond To Avoid (Stability): AVOID TEMPERATURES ABOVE 120F. Materials To Avoid: STRONG OXIDIZING AGENTS Hazardous Decomp Products: CARBON DIOXIDE, CARBON MONOXIDE, AND UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED DURING THERMAL DECOMPOSITION. Hazardous Poly Occur: NO Conditions To Avoid (Poly): NOT APPLICABLE

Control Measures

Respiratory Protection: NONE SPECIFIED BY MANUFACTURER. Ventilation: NONE SPECIFIED BY MANUFACTURER. Protective Gloves: NONE SPECIFIED BY MANUFACTURER. Eye Protection: NONE SPECIFIED BY MANUFACTURER. Other Protective Equipment: NONE SPECIFIED BY MANUFACTURER.

Work Hygienic Practices: NONE SPECIFIED BY MANUFACTURER. Suppl. Safety & Health Data: NONE SPECIFIED BY MANUFACTURER.

Market Sharpie # 15.
All Colors

Markel Sharpie #15 – All Colors

MARKEL SHARPIE #15 - ALL COLORS

SIGNS & SYMPTOMS OF EXPOSURE

- Signs/Symptoms Of Overexp: EYE: SEVERE IRRITATION AND CORNEAL DAMAGE.
- SKIN: CAN BE MILDLY IRRITATING.
- NHALED: NASAL AND RESPIRATORY IRRITATION.
- DIGESTED: G/I IRRITATION, NAUSEA, VOMITING, DIARRHEA.
- CHRONIC OVEREXPOSURE MAY BE FETO TOXIC AND MAY LEAD TO DAMAGE OF LIVER AND KIDNEYS.

FIRST AID

- **Company's Emerg Ph #: 312-826-1700**
- EYE: FLUSH W/WATER 15 MIN. -GET MEDICAL ATTENTION.
- SKIN: WASH WITH SOAP & WATER.
- INHALED: REMOVE TO FRESH AIR. INGESTED: INDUCE VOMITING
- IF CONSCIOUS. GET MEDICAL CARE

PRODUCT MONOGRAM

MARKEL SHARPIE #15 - ALL COLORS

MSDS Safety Information Distributor/Vendor # 1: CURTIN MATHESON SCIENTIFIC INC Distributor/Vendor # 1 Cage: 15481 Record No. For Safety Entry: 001 Tot Safety Entries This Stk#: 001 Status: SM Date MSDS Prepared: 21FEB90 Safety Data Review Date: 03SEP92 MSDS Serial Number: BNRKJ Specification Number: UNKNOWN SEE SUPP DAT Spec Type, Grade, Class: UNKNOWN Hazard Characteristic Code: N1 Unit Of Issue Container Qty: UNKNOWN Type Of Container: UNKNOWN Net Unit Weight: UNKNOWN NSN: 7520012650116	Contractor Summary Company's Name: MARKAL CO Company's Street: 250 N WASHENAW AVENUE Company's City: CHICAGO Company's State: IL Company's Country: US Zip Code: 60612-2014 Company's Emerg Ph #: 312-826-1700 Company's Info Ph #: 312-826-1700 Manufacturer's CAGE: 94858 Item Name: SEE SUPP DATA
Ingredients Proprietary: NO Ingredient: 2-ETHOXYETHANOL (EGEE) (SARA III) Ingredient Sequence Number: 01 Percent: 70 NIOSH (RTECS) Number: KK8050000 CAS Number: 110-80-5 OSHA PEL: S, 200 PPM ACGIH TLV: S, 5 PPM; 9192 Other Recommended Limit: NONE Proprietary: NO Ingredient: 2-METHOXYETHANOL (EGME) (SARA III)Ingredient Sequence Number: 02 Percent: 70 NIOSH (RTECS) Number: KL5775000 CAS Number: 109-86-4 OSHA PEL: S, 25 PPM ACGIH TLV: S, 5 PPM; 9192 Other Recommended Limit: NONE Proprietary: NO Ingredient: 2-BUTOXYETHANOL Ingredient Sequence Number: 03 Percent: 12 NIOSH (RTECS) Number: KJ8575000 CAS Number: 111-76-2 OSHA PEL: S, 50 PPM ACGIH TLV: S, 25 PPM; 9293 Other Recommended Limit: NONE SPECIFIED Proprietary: NO Ingredient: ETHYL ALCOHOL (ETHANOL) Ingredient	Physical/Chemical Properties Appearance And Odor: COLORED LIQUID, INK-LIKE ODOR (SEE SUPP DATA) Boiling Point: 250F, 121C Melting Point: UNKNOWN Vapor Pressure (MM Hg/70 F): 4-6 MM Vapor Density (Air=1): 3-4 Specific Gravity: 0.95 Decomposition Temperature: UNKNOWN Evaporation Rate And Ref: 3-6 BUTYL ACETATE=1 Solubility In Water: SLIGHT Percent Volatiles By Volume: 70-90 Viscosity: _

Sequence Number: 04 Percent: 10 NIOSH (RTECS) Number: KQ6300000
CAS Number: 64-17-5 OSHA PEL: 1000 PPM ACGIH TLV: 1000 PPM;
9192 Other Recommended Limit: NONE SPECIFIED
Proprietary: NO Ingredient: BENZYL ALCOHOL Ingredient Sequence
Number: 05 Percent: 2 NIOSH (RTECS) Number: DN3150000 CAS
Number: 100-51-6 OSHA PEL: NOT ESTABLISHED ACGIH TLV: NOT
ESTABLISHED Other Recommended Limit: NONE SPECIFIED

Health Hazards Data

LD50-LC50 Mixture: ORAL RAT LD50 IS UNKNOWN Route Of Entry - Inhalation: YES Route Of Entry - Skin: YES Route Of Entry - Ingestion: YES Health Haz Acute And Chronic: SUPPLIER DID LEFT THIS FIELD BLANK. Carcinogenicity - NTP: NO Carcinogenicity - IARC: NO Carcinogenicity - OSHA: NO Explanation Carcinogenicity: THE PRODUCT CONTAINS NO INGREDIENT THAT IS LISTED BY IARC, NTP OR OSHA AS A CARCINOGEN. Signs/Symptoms Of Overexp: EYE: SEVERE IRRITATION AND CORNEAL DAMAGE. SKIN: CAN BE MILDLY IRRITATING. INHALED: NASAL AND RESPIRATORY IRRITATION. ONGESTED: G/I IRRITATION, NAUSEA, VOMITING, DIARRHEA. CHRONIC OVEREXPOSURE MAY BE FETO TOXIC AND MAY LEAD TO DAMAGE OF LIVER AND KIDNEYS. Med Cond Aggravated By Exp: NONE KNOWN Emergency/First Aid Proc: EYE: FLUSH W/WATER 15 MIN. -GET MEDICAL ATTENTION. SKIN: WASH WITH SOAP & WATER. INHALED: REMOVE TO FRESH AIR. INGESTED: INDUCE VOMITING IF CONSCIOUS. GET MEDICAL CARE.

Handling and Disposal

Steps If Matl Released/Spill: ELIMINATE IGNITION SOURCES. VENTILATE AREA. COLLECT WITH ABSORBENT MATERIAL. Neutralizing Agent: NO INFORMATION GIVEN ON MSDS BY SUPPLIER Waste Disposal Method: DRY ABSORBENT MATERIAL IN A HOOD AND DISPOSE OF ABSORBENT AS SOLID WASTE. Precautions-Handling/Storing: STORAGE APPROPRIATE FOR FLAMMABLE LIQUIDS. Other Precautions: NONE Transportation data. Trans Data Review Date: 92248 DOT PSN Code: ZZZ DOT Proper Shipping Name: NOT REGULATED BY THIS MODE OF TRANSPORTATION IMO PSN Code: XXX IMO Proper Shipping Name: SEE ADDITIONAL DATA FIELD IN HMIS FOR FURTHER INFORMATION IATA PSN Code: XXX IATA Proper Shipping Name: SEE ADDITIONAL DATA FIELD IN HMIS FOR FURTHER INFORMATION AFI Prop. Shipping Name: NOT REGULATED BY THIS MODE OF TRANSPORTATION Additional Trans Data: NSN HAS BEEN CANCELLED WITHOUT REPLACEMENT. EVEN DATE OF CANCELLATION IS NOT AVAILABLE ON THE TIR.

Fire and Explosion Hazard Information

Flash Point: 125F, 52C Flash Point Method: TOC Lower Explosive Limit: UNKNOWN Upper Explosive Limit: UNKNOWN Extinguishing Media: ALCOHOL FOAM, DRY CHEMICAL, OR CARBON DIOXIDE Special Fire Fighting Proc: SELF CONTAINED BREATHING APPARATUS WITH FULL FACEPIECE OPERATED IN A POSITIVE PRESSURE MODE. Unusual Fire And Expl Hazrds: HEAVIER THAN AIR VAPORS. Reactivity Data Stability: YES Cond To Avoid (Stability): NONE KNOWN Materials To Avoid: STRONG OXIDIZING AGENTS, STRONG MINERAL ACIDS Hazardous Decomp Products: BURNING CAN PRODUCE CARBON MONOXIDE Hazardous Poly Occur: NO Conditions To Avoid (Poly): WILL NOT OCCUR.

Control Measures

Respiratory Protection: IF ANY TLV IS EXCEEDED, USE NIOSH/MSHA AIR SUPPLIED RESPIRATOR. Ventilation: LOCAL EXHAUSE AND/OR GENERAL VENTILATION TO KEEP EXPOSURE BELOW TLVS. Protective Gloves: SOLVENT RESISTANT IF NEEDED Eye Protection: OSHA APPROVED FOR SPLASH PROTECTION. Other Protective Equipment: SUPPLIER DID LEFT THIS FIELD BLANK. Work Hygienic Practices: SUPPLIER DID NOT ADDRESS THIS FIELD. Suppl. Safety & Health Data: MSDS RECEIVED FROM NAVY (FOCAL POINT N). NAVY IDENTIFIED NSN. NSN WAS CANCELLED W/O REPLACEMENT, DATE OF CANCELLATION NOT GIVEN. NO INFORMATION AVAILABLE FOR SPECIFICATION.

Moth Balls

P103 PARA MOTH KILLER NUGGETS 1 NO CANS (MOTH BALLS)

SIGNS & SYMPTOMS OF EXPOSURE

- WEAKNESS, NAUSEA and TREMORS ON PROLONGED OVER EXPOSURE.
- Med Cond Aggravated By Exp: NONE ESTABLISHED.

FIRST AID

- **Company's Emerg Ph #: 412-258-3670**
- MOVE TO FRESH AIR. ELIMINATE FURTHER EXPOSURE.
- ARTIFICIAL RESPIRATION IF NECESSARY.
- NO ADRENALIN. INGEST
- CALL MD IMMEDIATELY (FP-N)

PRODUCT MONOGRAM

P103 PARA MOTH KILLER NUGGETS 1 NO CANS (MOTH BALLS)

MSDS Safety Information

Date MSDS Prepared: 03JAN88
 Safety Data Review Date: 30JUN88
 MSDS Serial Number: BCTLG
 Unit Of Issue: NK
 Manufacturer's CAGE: 6H342
 Part No. Indicator: A

Contractor Summary

Company's Street: PINE STREET
 Company's P. O. Box: 430
 Company's City: NEW EAGLE
 Company's State: PA
 Company's Zip Code: 15067

 Company's Info Ph #: 412-258-3670
 Record No. For Safety Entry: 001
 Tot Safety Entries This Stk#: 001

Ingredients

Proprietary: NO
 Ingredient: P-DICHLOROBENZENE (1,4-DICHLOROBENZENE)
 (SARA III)
 Ingredient Sequence Number: 01
 Percent: N/K FPN
 NIOSH (RTECS) Number: CZ4550000
 CAS Number: 106-46-7
 OSHA PEL: 75 PPM
 ACGIH TLV: 10 PPM, A3 9394
 Other Recommended Limit: N/K FPN

Physical/Chemical Properties

Appearance And Odor: WHITE, CRYSTALLINE SOLID HAVING
 PENETRATING BUT
 PLEASANT ODOR.
 Boiling Point: 127.8
 Melting Point: 53 C; 127 F
 Vapor Pressure (MM Hg/70 F): 0.4
 Vapor Density (Air=1): 5.07
 Specific Gravity: 1.248
 Evaporation Rate And Ref: UNKNOWN
 Solubility In Water: INSOLUBLE
 Percent Volatiles By Volume: N/KFPN

pH: N/KFPN Corrosion Rate (IPY): NK(FPN)	
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Health Hazards Data Route Of Entry - Inhalation: YES Route Of Entry - Skin: YES Route Of Entry - Ingestion: NO Health Haz Acute And Chronic: NONE ESTABLISHED(MFR) 1,4-DICHLOROBENZENE IS AN IRRITANT OF THE EYES & UPPER RESP TRACT & IT IS TOXIC TO THE LIVER. PROLONGED EXPOSURE DEVELOPS ANOREXIA, NAUSEA, VOMITING, WT LOSS & HEPATIC NECROSIS W/ JAUNDICE & CAN BE FATAL (CHEMICAL HAZARDS OF THE WORK PLACE)(FP-N). Carcinogenicity - NTP: NO Carcinogenicity - IARC: NO Carcinogenicity - OSHA: NO Explanation Carcinogenicity: N/A(FP-N) Signs/Symptoms Of Overexp: WEAKNESS, NAUSEA, TREMORS ON PROLONGED OVEREXPOSURE. Med Cond Aggravated By Exp: NONE ESTABLISHED Emergency/First Aid Proc: MOVE TO FRESH AIR. ELIMINATE FURTHER EXPOSURE. ARTIFICIAL RESPIRATION IF NECESSARY. NO ADRENALIN. INGEST: CALL MD IMMEDIATELY. (FP-N)	Handling and Disposal Steps If Matl Released/Spill: SWEEP UP AND DISCARD DIRTY MATERIAL. USE ANY HOUSEHOLD WASTE DISPOSAL METHOD. (MFR) Neutralizing Agent: N/K FPN Waste Disposal Method: ALLOW TO EVAPORATE IN AN OPEN, WELL-VENTILATED AREA. DISPOSAL MUST BE IN ACCORDANCE WITH FEDERAL, STATE & LOCAL REGULATIONS(FP-N). Precautions-Handling/Storing: STORE IN COOL AREA IN A CLOSED CONTAINER OR IN ORIGINAL WRAPPER. Other Precautions: KEEP OUT OF REACH OF CHILDREN. TRANSPORTATION DATA: DOT PSN Code: ZZZ DOT Proper Shipping Name: NOT REGULATED BY THIS MODE OF TRANSPORTATION IMO PSN Code: ZZZ IMO Proper Shipping Name: NOT REGULATED FOR THIS MODE OF TRANSPORTATION IATA PSN Code: ZZZ IATA Proper Shipping Name: NOT REGULATED BY THIS MODE OF TRANSPORTATION AFI PSN Code: ZZZ AFI Prop. Shipping Name: NOT REGULATED BY THIS MODE OF TRANSPORTATION Additional Trans Data: NOT REGULATED FOR SHIPMENT. DISPOSAL DATA: Disposal Data Review Date: 90100 Rec # For This Disp Entry: 01 Tot Disp Entries Per NSN: 001 Landfill Ban Item: YES Disposal Supplemental Data: IN CASE OF ACCIDENTAL EXPOSURE OR DISCHARGE, CONSULT HEALTH AND SAFETY FILE FOR PRECAUTIONS. 1st EPA Haz Wst Code New: U072 1st EPA Haz Wst Name New: 1,4-DICHLOROBENZENE; P-DICHLOROBENZENE 1st EPA Haz Wst Char New: TOXIC (T) 1st EPA Acute Hazard New: NO	Fire and Explosion Hazard Information Flash Point: 148 C; 298.4 F Flash Point Method: TCC Lower Explosive Limit: UNKNOWN Upper Explosive Limit: UNKNOWN Extinguishing Media: FOAM, CARBON DIOXIDE, DRY CHEMICAL OR WATER SPRAY. Special Fire Fighting Proc: NONE (MFR). USE NIOSH/MSHA APPROVED SCBA & FULL PROTECTIVE EQUIPMENT (FP N). Unusual Fire And Expl Hazards: BURNS SLOWLY W/ A SMOKEY FLAME BUT NOT CONSIDERED A HAZARDOUS MATERIAL FROM A FLAMMABILITY STANDPOINT (MFR). Reactivity Data Stability: YES Cond To Avoid (Stability): DIRECT FLAME CONTACT. Materials To Avoid: OXIDIZING AGENTS. Hazardous Decomp Products: HYDROCHLORIC ACID PRODUCED IN COMBUSTION. Hazardous Poly Occur: NO Conditions To Avoid (Poly): NONE KNOWN. LD50-LC50 Mixture: N/K FPN
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Control Measures Respiratory Protection: NONE WITH NORMAL USAGE(MFR).NIOSH/MSHA APPROVED RESPIRATOR APPROPRIATE FOR EXP OF CONCERN (FP N). Ventilation: LOCAL EXHAUST SUFFICIENT TO MAINTAIN TLV. Protective Gloves: NONE WHEN USED AS DIRECTED. Eye Protection: NONE REQUIRED WHEN USED AS DIRECTED. Other Protective Equipment: NONE Work Hygienic Practices: GOOD HOUSEKEEPING METHODS.

Propane (Odorized)

IMPERIAL OIL: COMMERCIAL PROPANE (ODORIZED)

SIGNS & SYMPTOMS OF EXPOSURE

- **INHALATION:** May cause central nervous system disorder (e.g. loss of coordination, weakness, fatigue, mental confusion and blurred vision) and/or damage. Breathing high vapour concentrations (saturated vapours) for a few minutes may be fatal. Saturated vapours can be encountered in confined spaces and/or under conditions of poor ventilation. May cause irritation, breathing failure, coma and death without any warning odour being sensed. Inhalation exposure to this product at extremely high concentrations, as in accidental releases in which concentrations reach or exceed the flammable range, may result in cardiac arrhythmias.
- **EYE CONTACT:** Exposure to rapidly expanding gas or vapourizing liquid may cause frostbite (cold burns) and permanent eye damage.
- **SKIN CONTACT:** Exposure to rapidly expanding gas or vapourizing liquid may cause frostbite (cold burn).

FIRST AID

- **Emergency 24 hr. (519) 339-2145 IMPERIAL OIL**
- **Technical Info. (800) 268-3183 Products Division**
- **INHALATION:** In emergency situations use proper respiratory protection to immediately remove the affected victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest. Call for prompt medical attention.

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- **EYE CONTACT:** In case of cold burns caused by rapidly expanding gas or vapourizing liquid, get prompt medical attention.
 - **SKIN CONTACT:** In case of cold burns caused by rapidly expanding gas or vapourizing Liquid, get prompt medical attention.
 - **INGESTION:** First aid is not applicable.

PRODUCT MONOGRAM

IMPERIAL OIL: COMMERCIAL PROPANE (ODORIZED)

MSDS Safety Information

MSDS Number: 08515

CAUTION: " The information contained herein relates only to this product or material and may not be valid when used in combination with any other product or material or in any process. If the product is not to be used for a purpose or under conditions which are normal or reasonably foreseeable, this information cannot be relied upon as complete or applicable. For greater certainty, uses other than those described in Section 1 must be reviewed with the supplier. The information contained herein is based on the information available at the indicated date of preparation. This MSDS is for the use of Imperial Oil customers and their employees and agents only. Any further distribution of this MSDS by Imperial Oil customers is prohibited without the written consent of Imperial Oil."

WHMIS:

Class A - Compressed Gas

Class B, Division 1: Flammable Gases.

Ingredients

Colourless gases composed mainly of C3 hydrocarbons stored and handled as liquids under pressure.

NAME % CAS #

Propane 90-99 V/V 74-98-6

Propylene 1-10 V/V 115-07-1

Ethane 0-5 V/V 74-84-0

Isobutane 0-2.5 V/V 75-28-5

Butanes 0-2.5 V/V 68513-65-5

Contractor Summary

Emergency 24 hr. (519) 339-2145 IMPERIAL OIL
Technical Info. (800) 268-3183 Products Division
111 St Clair Avenue West
Toronto, Ontario

M5W 1K3

(416) 968-4441

CEPA:

PROTECTION ACT

ENVIRONMENTAL

All components of this product are either on the Domestic

Substances List (DSL) or are exempt.

TDG INFORMATION (RAIL/ROAD):

Shipping Name: Liquefied petroleum gas (propane)

Class: 2.1

Packing Group: -

PIN Number: UN1075

Physical/Chemical Properties

Physical State: Gas Specific gravity: not available

Viscosity: 0.50 cSt at 15 deg C Vapour Density: 1.52

Boiling Point: -42 deg C

Evaporation rate: >1 (1= n-butylacetate) Solubility in water: negligible

Freezing/Pour Point: not available Odour Threshold: not available

Vapour Pressure: 850 kPa at 15 deg C Density: 0.51 g/cc at 15 deg C

Appearance/odour: Colourless gas, stench to allow detection of leaks.

Health Hazards Data

INHALATION: May cause central nervous system disorder (e.g. loss of coordination, weakness, fatigue, mental confusion and blurred vision) and/or damage.

Breathing high vapour concentrations (saturated vapours) for a few minutes may be fatal. Saturated vapours can be encountered in confined spaces and/or under conditions of poor ventilation. May cause irritation, breathing failure, coma and death without any warning odour being sensed. Inhalation exposure to this product at extremely high concentrations, as in accidental releases in which concentrations reach or exceed the flammable range, may result in cardiac arrhythmias.

EYE CONTACT: Exposure to rapidly expanding gas or vapourizing liquid may cause frostbite (cold burns) and permanent eye damage.

SKIN CONTACT: Exposure to rapidly expanding gas or vapourizing liquid may cause frostbite (cold burn).

INGESTION: Not considered to be a hazard.

ACUTE TOXICITY DATA: The above evaluation of hazard is based on knowledge of the toxicity of the material's components.

OCCUPATIONAL EXPOSURE LIMIT: Manufacturer recommends: For Isobutane, 800 ppm. For Propane, 1000 ppm TWA for 8 hours/day, and 1500 ppm for a 15 minute short term exposure (STEL). For propylene, 1000 ppm 8-hour TWA and 3000 ppm 15-minute STEL. ACGIH recommends: For Butane, 800 ppm (1900 mg/m³). Local regulated limits may vary.

Handling and Disposal**HANDLING, STORAGE AND SHIPPING:**

Keep containers closed. Handle and open containers with care. Store in a cool, well ventilated place away from incompatible materials. Store as pressurized liquid in a pressure vessel. Store and load the container at normal (up to 38 deg C) temperature and at atmospheric pressure. Material will accumulate static charges which may cause a spark. Static charge build-up could become an ignition source. Use proper relaxation and grounding procedures. Empty containers may contain product residue. Do not pressurize cut, heat, or weld empty containers. Do not reuse empty containers without commercial cleaning or reconditioning.

LAND SPILL:

Eliminate source of ignition. Keep public away. Prevent additional discharge of material, if possible to do so without hazard. Vapours or dust may be harmful or fatal. Warn occupants of downwind areas. Allow to evaporate. Consult an expert on disposal of recovered material. Ensure disposal in compliance with government requirements and ensure conformity to local disposal regulations. Notify the appropriate authorities immediately. Take all additional action necessary to prevent and remedy the adverse effects of the spill.

WATER SPILL:

Eliminate all sources of ignition. Vapours or dust may be harmful or fatal. Warn occupants and shipping in downwind areas. Allow to evaporate from surface. Consult an expert on disposal of recovered material. Ensure disposal in compliance with government requirements and ensure conformity to local disposal regulations. Notify the appropriate authorities immediately. Take all additional action necessary to prevent and remedy the adverse effects of the spill.

Fire and Explosion Hazard Information

Flashpoint and method: -103 deg C COC ASTM D92 Autoignition: 432 deg C Flammable Limits: LEL: 2.4% UEL: 9.5% GENERAL HAZARDS: Extremely flammable; material will readily ignite at normal temperatures. Flammable Gas; may readily form flammable mixtures at or above the flash point. Toxic gases will form upon combustion. Static Discharge; material may accumulate static charges which may cause a fire. Auto-refrigeration; drains may become plugged and valves may become inoperable because of the formation of ice due to expanding vapours or vapourizing liquids. FIRE FIGHTING: Use water spray to cool fire exposed surfaces and to protect personnel. Shut off fuel to fire if possible to do so without hazard. If a leak or spill has not ignited use water spray to disperse the vapours. Do not extinguish flames at leak because possibility of uncontrolled explosive re-ignition exists. Cut off fuel and/or allow fire to burn out. Extinguish small residual fires with dry chemical powder or water spray. Try to cover liquid spills with foam. Respiratory and eye protection required for fire fighting personnel. A self-contained breathing apparatus (SCBA) should be used for all indoor fires and any significant outdoor fires. For small outdoor fires, which may easily be extinguished with a portable fire extinguisher, use of an SCBA may not be required. HAZARDOUS COMBUSTION PRODUCTS: Smoke, carbon monoxide, carbon dioxide under thermal decomposition. REACTIVITY DATA STABILITY: This product is stable. Hazardous polymerization will not occur. INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID: Strong oxidizing agents

Control Measures PERSONAL PROTECTION: The selection of personal protective equipment varies, depending upon conditions of use. In open systems where contact is likely, wear gas-proof goggles, face shield chemical-resistant overalls, and appropriate thermal/chemical gloves. Where skin and eye contact is unlikely, but may occur as a result of short and/or periodic exposures, wear long sleeves, chemical resistant gloves, gas-proof goggles, and a face shield. Where concentrations in air may exceed the occupational exposure limits given in Section 4 and where engineering, work practices or other means of exposure reduction are not adequate, approved respirators may be necessary to prevent overexposure by inhalation. **ENGINEERING CONTROLS:** The use of local exhaust ventilation is recommended to control emissions near the source. Laboratory samples should be handled in a fumehood. Provide mechanical ventilation of confined spaces. Use explosion-proof ventilation equipment.

NOTES All components of this product are listed on the U.S. TSCA inventory. Imperial Oil has no knowledge how its customers will handle, store, transfer, distribute or use odorized propane or non-odorized propane and therefore makes no warranty regarding the propane or the odorant after the custody of these materials passes to the customers. It is recommended that Imperial Oil's customers provide their employees and subsequent customers with information regarding the characteristics of propane, how those characteristics relate to the employees or customers use including the limitation in detecting non-odorized or odorized propane and the limitations of any odorant such as ethyl mercaptan that may be added during subsequent distribution. With proper handling, transportation and storage, adding a chemical odorant such as ethyl mercaptan has proven to be a very effective warning device but all odorants have certain limitations. The effectiveness of the odorant may be diminished by a person's sense of smell, by competing odours and by oxidation which may cause a potentially dangerous situation. Further safety related information is contained on the Material Safety Data Sheet. Industry experience has shown that natural gas streams may contain trace amounts of radon, a naturally occurring radioactive gas, and radioactive particulate decay products which can accumulate in process equipment and storage vessels. These materials emit gamma, alpha, and beta forms of radiation. Since gamma radiation can penetrate the walls of intact equipmenta potential for exposure could exist at or adjacent to the external surface of process equipment that contain radon-enriched process streams or accumulated deposits of radon decay products. Equipment emitting gamma radiation at dose rates above background should be assumed to be contaminated with internal deposits of alpha- and beta-emitting radon decay products. Measures should be taken to preclude the inhalation or ingestion of alpha- Of beta-emitting materials. Before performing maintenance on contaminated equipment, all process shut-down safety and "gas freeing" procedures should be followed and at least a 4 hour lapse should be allowed between process stream shut-down and the opening of equipment for repair operations. This time will allow the gamma radiation dose rates to be reduced to background levels. Maintenance personnel should wear appropriate personal protective equipment and follow recommended industrial hygiene/safety and environmental procedures in accordance with prevailing regulations and industry guidelines

Oxygen

NON-FLAMMABLE GAS MIXTURE (OXYGEN)

SIGNS & SYMPTOMS OF EXPOSURE

Individuals breathing such an atmosphere may experience symptoms that include: nausea, dizziness, bronchial irritation, hypothermia, increased depth of respiration, bradycardia, pulmonary discomfort, peripheral vasoconstriction, amblyopia (loss of vision), seizures, or death.

Contact with rapidly expanding gases (which are released under high pressure) may cause frostbite. Symptoms of frostbite include change in skin color to white or grayish-yellow

FIRST AID

EMERGENCY PHONE: CHEMTREC: 1-800-424-9300 International: 202-483-7616

- Remove victim(s) to fresh air, as quickly as possible. In case of eye contact that leads to irritation, immediately flush eyes with copious amounts of water for at least 15 minutes.
- If not breathing, give artificial respiration.
- If breathing is difficult, give oxygen. Only trained personnel should administer supplemental oxygen.
- In case of frostbite, place the frostbitten part in warm water. DO NOT USE HOT WATER. If warm water is not available, or is impractical to use, wrap the affected parts gently in blankets. Alternatively, if the fingers or hands are frostbitten, place the affected area in the armpit. Encourage victim to gently exercise the affected part while being warmed. Seek immediate medical attention.
- Victim(s) must be taken for medical attention. Rescuers should be taken for medical attention, if necessary. Take copy

of label and MSDS to physician or other health professional with victim(s).

PRODUCT MONOGRAM

NON-FLAMMABLE GAS MIXTURE (OXYGEN)

Contractor Summary

SUPPLIER/MANUFACTURER'S NAME: AIRGAS INC. ADDRESS: 259 Radnor-Chester Road Suite 100 Radnor, PA 19087-5240

EMERGENCY PHONE: CHEMTREC: 1-800-424-9300 International: 202-483-7616 BUSINESS PHONE: 1-610-687-5253

MSDS Safety Information

CAS #: This is the Chemical Abstract Service Number that uniquely identifies each constituent. It is used for computer-related searching. **EXPOSURE LIMITS IN AIR:** ACGIH - American Conference of Governmental Industrial Hygienists, a professional association which establishes exposure limits. TLV - Threshold Limit Value - an airborne concentration of a substance which represents conditions under which it is generally believed that nearly all workers may be repeatedly exposed without adverse effect. The duration must be considered, including the 8-hour Time Weighted Average (TWA), the 15-minute Short Term Exposure Limit, and the instantaneous Ceiling Level. Skin adsorption effects must also be considered. OSHA - U.S. Occupational Safety and Health Administration. PEL - Permissible Exposure Limit - this exposure value means exactly the same as a TLV, except that it is enforceable by OSHA. The OSHA Permissible Exposure Limits are based in the 1989 PELs and the June, 1993 Air Contaminants Rule (Federal Register: 58: 35338-35351 and 58: 40191). Both the current PELs and the vacated PELs are indicated. The phrase, "Vacated 1989 PEL," is placed next to the PEL which was vacated by Court Order. IDLH - Immediately Dangerous to Life and Health level represents a concentration from which one can escape within 30- minutes without suffering escape-preventing or permanent injury. The DFG - MAK is the Republic of Germany's Maximum Exposure Level, similar to the U.S. PEL. NIOSH is the National Institute of Occupational Safety and Health, which is the research arm of the U.S. Occupational Safety and Health Administration (OSHA). NIOSH issues exposure guidelines called Recommended Exposure Levels (RELs). When no exposure guidelines are established, an entry of NE is made for reference.

FLAMMABILITY LIMITS IN AIR: Much of the information related to fire and explosion is derived from the National Fire Protection Association (NFPA). LEL - the lowest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source. UEL - the highest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source.

TOXICOLOGICAL INFORMATION Possible health hazards as derived from human data, animal studies, or from the results of studies with similar compounds are presented. Definitions of some terms used in this section are: LD50- Lethal Dose (solids & liquids) which kills 50% of the exposed animals; LC50 - Lethal Concentration (gases) which kills 50% of the exposed animals; ppm concentration expressed in parts of material per million parts of air or water; mg/m³ concentration expressed in weight of substance per volume of air; mg/kg quantity of material, by weight, administered to a test subject, based on their body weight in kg. Data from several sources are used to evaluate the cancer-causing potential of the material. The sources are: IARC - the International Agency for Research on Cancer; NTP - the National Toxicology Program, RTECS - the Registry of Toxic Effects of Chemical Substances, OSHA and CAL/OSHA. IARC and NTP rate chemicals on a scale of decreasing potential to cause human cancer with rankings from 1 to 4. Subrankings (2A, 2B, etc.) are also used. Other measures of toxicity include TDLo, the lowest dose to cause asymptomatic and TCLo the lowest concentration to cause a symptom; TDo, LDLo, and LDo, or TC, TCo, LCLo, and LCo, the lowest dose (or concentration) to cause death. BEI - Biological Exposure Indices, represent the levels of determinants that are most likely to be observed in specimens collected from a healthy worker who has been exposed to chemicals to the same extent as a worker with inhalation exposure to the TLV. **REGULATORY INFORMATION**

This section explains the impact of various laws and regulations on the material. The acronyms used are: EPA is the U.S. Environmental Protection Agency. WHMIS is the Canadian Workplace Hazardous Materials Information System. DOT and TC are the U.S. Department of Transportation and Transport Canada, respectively. Superfund Amendments and Reauthorization Act (SARA); the Toxic Substance Control Act (TSCA); Marine Pollutant status according to the DOT; California's Safe Drinking Water Act (Proposition 65); the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund); and various state regulations

Ingredients

Physical/Chemical Properties

CHEMICAL NAME CAS # mole % EXPOSURE LIMITS IN AIR ACGIH OSHA TLV STEL PEL STEL IDLH OTHER ppm ppm ppm ppm
Oxygen 7782-44-7 26-99 There are no specific exposure limits for Oxygen. Oxygen levels should be maintained above 19.5% and below 23.5%. Carbon Dioxide 124-38-9 Balance 5000 30,000 5000 10,000
(Vacated 1989 PEL) 30,000 (Vacated 1989 PEL) 40,000 DFG-MAK: 5000
NIOSH RELTWA = 10000 STEL = 30000 The following information is pertinent to Oxygen, a main component of this gas mixture:
VAPOR DENSITY: 11.309 kg/m³ EVAPORATION RATE (nBuAc = 1): Not applicable SPECIFIC GRAVITY (air = 1): 1.105 FREEZING POINT: -361.8 °F, -218.8 °C SOLUBILITY IN WATER (v/v @ 0 °C): 4.9% BOILING POINT(°F @ 1 atmos.): -297.4 °F; -183.0 °C VAPOR PRESSURE (psia): Not applicable. pH: Not applicable. EXPANSION RATIO: Not applicable. ODOR THRESHOLD: Not applicable. Odorless. COEFFICIENT WATER/OIL DISTRIBUTION: 0.65 SPECIFIC VOLUME (ft³/lb): 12.1 The following information is pertinent to this gas mixture. APPEARANCE AND COLOR: This product is a colorless, odorless gas. HOW TO DETECT THIS SUBSTANCE (warning properties): There are no unusual warning properties associated with a release of this product.

Health Hazards Data

EMERGENCY OVERVIEW: This product is a colorless, odorless gas. High concentrations of this gas can cause an oxygen-rich environment, breathing such an atmosphere may cause symptoms which can include nausea, dizziness, or death. High concentrations of Carbon Dioxide (a component of this gas mixture) can cause nausea, dizziness, headache, mental confusion, increased blood pressure and respiratory rate. If the concentration of Carbon Dioxide reaches 10% or more suffocation can occur within minutes. At high concentrations of this gas. Additionally, frostbite can occur if skin or other tissues are exposed to rapidly expanding gases. Although this gas mixture is non-flammable, Oxygen, a component of this product, is an oxidizing agent and accelerates combustion. Atmospheres containing greater than 23.5% Oxygen present a significant fire hazard by lowering the flashpoint of flammable and combustible materials in the surrounding area. Emergency responders must wear proper personal protective equipment, including Self-Contained Breathing Apparatus, when responding to releases of this material. **INHALATION:** High concentrations of this gas can cause an oxygen rich environment. Individuals breathing such an atmosphere may experience symptoms which include nausea, dizziness, bronchial irritation, hypothermia, increased depth of respiration, bradycardia, pulmonary discomfort, peripheral vasoconstriction, amblyopia (loss of vision), seizures, or death. Additionally, if the concentration of Carbon Dioxide (a component of this gas mixture) reaches 10% or more, suffocation can occur within minutes. At concentrations between 2-10%, Carbon Dioxide can cause nausea, dizziness, headache, mental

confusion, increased blood pressure and respiratory rate. **CONTACT WITH SKIN or EYES:** High concentrations of Carbon Dioxide can react with moisture in the air which could lead to the formation of carbonic acid, which can be irritating to the eyes. **OTHER POTENTIAL HEALTH EFFECTS:** Contact with rapidly

expanding gases (which are released under high pressure) may cause frostbite. Symptoms of frostbite include change in skin color to white or grayish-yellow. The pain after contact with liquid can quickly subside. **HEALTH EFFECTS OR RISKS FROM EXPOSURE:** An Explanation in Lay Terms. Over-exposure to this gas mixture may cause the following health effects: **ACUTE:** High concentrations of this gas can cause an oxygen-rich environment. Individuals breathing such an atmosphere may experience symptoms which include nausea, dizziness, bronchial irritation, hypothermia, increased depth of respiration, bradycardia, pulmonary discomfort, peripheral vasoconstriction, amblyopia (loss of vision), seizures, or death. Contact with rapidly expanding gases (which are released under high pressure) may cause frostbite. Symptoms of frostbite include change in skin color to white or grayish-yellow. The pain after contact with liquid can quickly subside. **CHRONIC:** There are currently no known adverse health effects associated with chronic exposure to this product. **PART II What should I do if a hazardous situation occurs? STABILITY:** Normally stable. **TOXICOLOGICAL INFORMATION TOXICITY DATA:** The following data are for the components of this gas mixture. **OXYGEN:** Cytogenic Analysis System (hamster, lung) = 80 pph/ 14 hours, pulmonary effects. **CARBON DIOXIDE:** This gas is an asphyxiant gas with physiological effects at

high concentrations. **LCLo** (inhalation, human) = 9pph/5 minutes. **LCLo** (inhalation, mammal) = 90,000 ppm/5 minutes. **TCLo** (inhalation, rat) = 6pph/24 hours; reproductive and teratogenic effects. **SUSPECTED CANCER AGENT:** The components of this gas mixture are not found on the following lists: **FEDERAL OSHA Z LIST**, **NTP**, **CAL/OSHA**, **IARC**, and therefore are not considered to be, nor suspected to be cancer-causing agents by these agencies. **IRRITANCY OF PRODUCT:** Contact with rapidly expanding gases can cause frostbite and damage to exposed skin and eyes. **SENSITIZATION OF PRODUCT:** The components of this gas mixture are not sensitizers. **REPRODUCTIVE TOXICITY INFORMATION:** Listed below is information concerning the effects of this product and its components on the human reproductive system. **Mutagenicity:** This product is not expected to cause mutagenic effects in humans. Human mutation data are available for Oxygen (a component of this product) obtained during clinical studies on specific human tissues exposed to high doses of this compound.

Embryotoxicity: This product is not expected to cause embryotoxic effects. **Teratogenicity:** This product is not expected to cause teratogenic effects in humans.

State regulations:

Alaska - Designated Toxic and Hazardous Substances: Carbon Dioxide. California - Permissible Exposure Limits for Chemical Contaminants: Carbon Dioxide.
Florida - Substance List: Carbon Dioxide. Illinois - Toxic Substance List Carbon Dioxide. Kansas - Section 302/313 List: No. Massachusetts - Substance List: Carbon Dioxide. Minnesota - List of Hazardous Substances: Carbon Dioxide. Missouri - Employer Information/Toxic Substance List: Carbon Dioxide.
New Jersey - Right to Know Hazardous Substance List: Carbon Dioxide, Oxygen. North Dakota - List of Hazardous Chemicals, Reportable Quantities:
No. Pennsylvania - Hazardous Substance List: Carbon Dioxide, Oxygen. Rhode Island - Hazardous Substance List: Carbon Dioxide. Texas - Hazardous Substance List: Carbon Dioxide. West Virginia - Hazardous Substance List: Carbon Dioxide Wisconsin - Toxic and Hazardous Substances: Carbon Dioxide..
LABELING (Precautionary Statements): CAUTION: HIGH PRESSURE OXIDIZING GAS. VIGOROUSLY ACCELERATES COMBUSTION. Keep oil and grease away. Use equipment rated for cylinder pressure. Close valve after each use and when empty. Use in accordance with the Material Safety Data Sheet
DO NOT REMOVE THIS PRODUCT LABEL. TARGET ORGANS: Respiratory system WHMIS SYMBOLS: 16. OTHER INFORMATION PREPARED BY: CHEMICAL SAFETY ASSOCIATES, Inc. 9163 Chesapeake Drive, San Diego, CA 92123-1002 619/565-0302
The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. AIRGAS, Inc. assumes no responsibility for injury to the vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, AIRGAS, Inc. assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material even if reasonable safety procedures are followed. Furthermore, the vendee assumes the risk in his use of the material. NON-FLAMMABLE GAS MIXTURE MSDS

Control Measures

in Section 6 (Accidental Release Measures). Make certain application equipment is locked and tagged-out safely. Always use product in areas where adequate ventilation is provided.

EXPOSURE CONTROLS - PERSONAL PROTECTION

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation to ensure exposure levels are maintained below the limits provided in Section 2 (Composition and Information on Ingredients). Local exhaust ventilation is preferred, because it prevents dispersion of this gas mixture into the work place by eliminating it at its source. If appropriate, install automatic monitoring equipment to detect the level of oxygen.

RESPIRATORY PROTECTION: Maintain airborne contaminant concentrations below exposure limits listed in Section 2 (Composition and Information on Ingredients). Maintain oxygen levels above 19.5% in the workplace. Use supplied air respiratory protection if oxygen levels are below 19.5% or during emergency response to a release of this product. If respiratory protection is required, follow the requirements of the Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), or equivalent State standards.

EYE PROTECTION: Splash goggles, face-shields or safety glasses.

HAND PROTECTION: Wear mechanically-resistant gloves when handling cylinders of this product.

BODY PROTECTION: Use body protection appropriate for task.

**Spic and Span Floor Cleaner
With Bleach**

Spic & Span Floor Cleaner with Bleach

PROCTER & GAMBLE SPIC AND SPAN FLOOR CLEANER WITH BLEACH (non-phosphate & phosphate)

SIGNS & SYMPTOMS OF EXPOSURE

- **Ingestion:** May cause transient gastrointestinal irritation with nausea, vomiting and/or diarrhea.
- **Eye Contact:** May cause mild, transient irritation with stinging, tearing, itching, swelling and redness
- **Inhalation:** Heavy or prolonged exposure to dust may cause transient respiratory tract irritation with coughing, sore throat, wheezing or transitory shortness of breath.

FIRST AID

- **Emergency Telephone Number:** - 1-800-332-7787 or call Local Poison Control Center
- **Ingestion:** Drink 1 or 2 large glasses of water. If large amounts are ingested, call a physician.
- **Eye Contact:** Flush with large amounts of water for at 10-15 minutes.
- **Skin:** Rinse skin thoroughly with water. Discontinue use.
- **Inhalation:** Leave dusty area.
- **Other:** Product package has a caution statement: CAUTION: May cause eye/skin irritation. Eye irritant. Avoid eye contact. Do not mix with other cleaning products as irritating fumes may be released. May be irritating to skin. For sensitive skin or prolonged use, wear gloves. If eye or skin contact occurs, flush with water for 15 minutes. If irritation persists, seek medical attention. **KEEP OUT OF REACH OF CHILDREN**

PRODUCT MONOGRAM

PROCTER & GAMBLE: SPIC AND SPAN FLOOR CLEARNER WITH BLEACH (non-phosphate & phosphate)

MSDS Safety Information

The submission of this MSDS may be required by law, but this is not an assertion that the substance is hazardous when used in accordance with proper safety practices and normal handling procedures. Data supplied is for use only in connection with occupational safety and health.

The information contained herein has been compiled from sources considered by Procter & Gamble to be dependable and is accurate to the best of the Company's knowledge. The information relates to the specific material designated herein, and does not relate to the use in combination with any other material or any other process. Procter & Gamble assumed no responsibility for injury to the recipient or third persons, for any damage to any property resulting from misuse of the controlled product.

Contractor Summary

Procter & Gamble
CPG TN 6
2 Procter & Gamble Plaza
Cincinnati, OH 45202
Emergency Telephone Number: - 1-800-332-7787 or call Local
Poison Control Center

Ingredients

Ingredients/Chemical Name: Anionic surfactants, water softeners (sodium carbonate, complex sodium phosphates [phosphate version]), dry chlorine bleach, processing aids (sodium sulfate), metal protection agents (sodium silicates). This product is a mild eye irritant within the meaning of the OSHA Hazard Communication Standard
Hazardous Ingredients as defined by OSHA, 29 CFR 1910.1200.
Chemical Name Common Name CAS No. Recommended Limits
Composition Range LD50/LC50 Sodium carbonate Soda Ash 497-

Physical/Chemical Properties

Identity: Granular Cleaner with Bleach
Brands: SPIC and SPAN Floor Cleaner with BLEACH (non-phosphate & phosphate) Hazard Rating: 1 Health: 1 4=EXTREME
Flammability: 0 3=HIGH Reactivity: 0 2= MODERATE 1=SLIGHT
Emergency Telephone Number: - 1-800-332-7787 or call Local
Poison Control Center Boiling Point ° F: N/A **Specific Gravity (H2O=1):** N/A
Vapor Pressure (mm Hg): N/A **Percent Volatile by Volume (%):** N/A

19-8 N/A 15-40% (OP) 10-25% (P) LD50=1.86 g/kg LC50=N/A
 Sodium
 Dichloroisocyanurate dihydrate Sodium DCC 2893-78-9 AGCY
 OSHA
 TLV PEL 10 mg/m3 15 mg/m3 10-15% LD50=735 mg/kg rat Linear
 alkyl benzene sulfonate C12.3 LAS 68081-81-2 N/A 15-30%
 LD50=0.65-1.26 g/kg LC50=N/A

Vapor Density (Air=1): N/A Evaporation Rate (nBuOAc=1): N/A
 Odor Threshold: N/A Freezing Point: N/A
 Coefficient of Water/Oil Distribution: N/A pH (1% solution):
 ~10.9
 Scooped Density: 0.4/cc (bulk density) Solubility in Water: Mostly
 Appearance and Odor: White granule with green specks
 and bland odor Reserve Alkalinity: 4.0 max

Health Hazards Data

Health Hazards & Symptoms (Acute and Chronic): Ingestion: May cause transient gastrointestinal irritation with nausea, vomiting and/or diarrhea. Eye Contact: May cause mild, transient irritation with stinging, tearing, itching, swelling and redness. Inhalation: Heavy or prolonged exposure to dust may cause transient respiratory tract irritation with coughing, sore throat, wheezing or transitory shortness of breath.

Handling and Disposal

Precautions To Be Taken in Handling and Storing: Store in a cool, dry place. Keep product dry to maintain freeflowing granules. **Other Precautions:** None

TOXICOLOGICAL INFORMATION LD50 (rats oral): 2.9g/kg ECOLOGICAL INFORMATION None DISPOSAL CONSIDERATIONS

Waste Disposal Method: DISPOSAL IS TO BE PERFORMED IN COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS. Small quantities may be disposed of in sewer. Dry product may be landfilled. Discard empty container in trash. **DOT Classification:** The finished product is not DOT hazardous. **ADDITIONAL REGULATORY INFORMATION** All components are listed on the US TSCA Inventory. No components are affected by Significant New Use Rules (SNURs) under TSCA §5. No components of Spic and Span with Bleach are subject to California Proposition 65. All ingredients are CEPA approved for import to Canada by Procter & Gamble. This product has been classified with Hazard Criteria of the Canadian Control Products Regulation (CPR) and this MSDS contains all information required by the Canadian Products Regulation

Fire and Explosion Hazard Information

FIRE FIGHTING INFORMATION

Flash Point (Method Used): N/A Explosive Limits: LEL: N/A UEL: N/A Extinguishing Media: CO2, water, or dry chemical Special Fire Fighting Procedures: None known. Unusual Fire Hazards : N/A ACCIDENTAL RELEASE MEASURES Personal Precautions: None Environmental Precautions: DISPOSAL IS TO BE PERFORMED IN COMPLIANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS. Solutions may be disposed of in sewer. Dry product may be landfilled if permitted by local regulations. Discard empty container in trash. Steps To Be Taken in Case Material is Released or Spilled: Dispose as dry scrap or flush small quantities down acceptable sewer (contains biodegradable surfactants). Dispose of according to local regulations. Prevent heavy exposure to dust with NIOSH approved dust mask. **STABILITY AND REACTIVITY** Possible Hazardous Reactions/Conditions: None known **Conditions to Avoid:** None **Materials to Avoid:** Products which contain ammonia or are acidic **Hazardous Decomposition Products:** Chlorine gas **Other Recommendations:** None **Stability:** Stable **Hazardous Polymerization:** Will not occur

Control Measures

Respiratory Protection (Specify Type): None required with normal use. **Ventilation** Local Exhaust: None required with normal use. **Special:** None
Mechanical (General): Acceptable. **Other:** None **Eye Protection:** None required with normal use. **Manufacturing Setting:** With dusty conditions or if a splash is likely, chemical goggles may be needed. **Protective Gloves:** None required with normal use. **Manufacturing Setting:** Protective gloves (rubber, neoprene) should be used for any prolonged direct contact. **Other Protective Equipment:** None required with normal use.

Spic and Span Glass Cleaner

PROCTER & GAMBLE SPRAY AND GLASS SPIC AND SPAN DISINFECTING ALL PURPOSE CLEANER

SIGNS & SYMPTOMS OF EXPOSURE

- **Ingestion:** may cause temporary dizziness, uncoordination and headache.
- **Eye Contact:** Eye contact may result in transient, superficial effects similar to those produced by mild toilet soaps.
- **Skin:** May cause skin irritation. Use on irritated or extremely dry skin may aggravate the existing condition.
- **Inhalation:** N/A

FIRST AID

- **Emergency Telephone Number:** 24hr P&G Operator - 1-513-983-1100 or call Local Poison Control Center
- **Inhalation:** Remove to fresh air.
- **Ingestion:** Dilute with fluids and treat symptomatically. For large ingestions, call a physician.
- **Eye contact:** Flush thoroughly with water for 15 minutes. Get medical attention if irritation persists.
- **Skin:** Rinse exposed area with soap and water and discontinue use..
- **Other:** Product package has a caution statement: **KEEP OUT OF REACH OF CHILDREN. CAUTION:** Causes eye irritation. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling.

PRODUCT MONOGRAM

PROCTER & GAMBLE: SPRAY AND GLASS SPIC AND SPAN DISINFECTING ALL PURPOSE CLEANER

MSDS Safety Information

The submission of this MSDS may be required by law, but this is not an assertion that the substance is hazardous when used in accordance with proper safety practices and normal handling procedures. Data supplied is for use only in connection with occupational safety and health. The information contained herein has been compiled from sources considered by Procter & Gamble to be dependable and is accurate to the best of the Company's knowledge. The information relates to the specific material designated herein, and does not relate to the use in combination with any other material or any other process. Procter & Gamble assumed no responsibility for injury to the recipient or third persons, for any damage to any property resulting from misuse of the controlled product.

Ingredients

Hazardous Ingredients as defined by OSHA, 29 CFR

1910.1200. Chemical Name Common Name CAS No. Recommended Limits Composition Range LD50/LC50 Ethyl alcohol Ethanol 64-17-5 ACGIH TLV: 1000 mg/m³ 1-4% 2-aminoethanol Monoethanolamine 141-43-5 ACGIH TLV: 3 ppm OSHA PEL: 3 mg/m³ OSHA PEL: 6 ppm (15 min) 0.1-1%

Contractor Summary

Procter & Gamble
CPG TN 6
2 Procter & Gamble Plaza
Cincinnati, OH 45202
Hazard Rating: 2 Health: 1 4=EXTREME
Flammability: 2 3=HIGH
Reactivity: 2= MODERATE
1=SLIGHT
Emergency Telephone Number: 24hr P&G Operator - 1-513-983-1100 or call Local Poison Control Center

Physical/Chemical Properties

Cleaning agents (ethanol, butoxypropanol), quaternary, water, colorant and perfume. **Boiling Point** □ F: 200 □ F **Specific Gravity (H₂O=1):** 0.99 **Vapor Pressure (mm Hg):** N/A **Percent Volatile by Volume (%):** ca. 95 **Vapor Density (Air=1):** N/A **Evaporation Rate (nBuOAc=1):** N/A **Odor Threshold:** N/A **Freezing Point:** N/A **Coefficient of Water/Oil Distribution:** N/A **pH (100% solution):** 10.7 **Scooped Density:** N/A **Solubility in Water:** Completely **Appearance and Odor:** Light blue liquid solvent odor **Reserve Alkalinity:** N/A

Health Hazards Data

Health Hazards (Acute and Chronic): Ingestion: May cause mucous membrane irritation Eye Contact: May cause eye irritation. Inhalation: May cause mucous membrane irritation Skin: May cause skin irritation **Signs and Symptoms of Exposure:** Ingestion: Possible mild gastrointestinal irritation with nausea, vomiting and/or diarrhea. Large ingestions may cause temporary dizziness, uncoordination and headache. Eye Contact: Eye contact may result in transient, superficial effects similar to those produced by mild toilet soaps. Skin: May cause skin irritation. Use on irritated or extremely dry skin may aggravate the existing condition.

Handling and Disposal

Precautions To Be Taken in Handling and Storing: Handling and storage must be well ventilated, cool and dry. Materials must be isolated from potential sources of ignition. Fire fighting equipment must be available at all times. **Other Precautions:** Keep away from sparks and open flame. **DISPOSAL CONSIDERATIONS Waste Disposal Method:** Slowly flush down sewer with excess water or dispose as liquid scrap. **DISPOSAL IS TO BE PERFORMED IN COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.** Discard empty container in trash. **TRANSPORT INFORMATION DOT Classification:** Combustible liquid not regulated in packaging of less than 119 gallons. When shipped in bulk, classified as compounds, cleaning liquid Class 3 (NA 1993) **ADDITIONAL REG.INFO.** All components are listed on the US TSCA Inventory. No components are affected by Significant New Use Rules (SNURs) under TSCA §5. No components of Spic & Span Disinfecting All-Purpose Spray & Glass Cleaner RTU are subject to California Proposition 65.

Fire and Explosion Hazard Information

Flash Point (Method Used): 136°F (cc) **Explosive Limits:** LEL: N/A UEL: N/A **Extinguishing Media:** CO2, dry chemical, water, or "alcohol" foam. **Special Fire Fighting Procedures:** Use water to keep fire exposed containers cool. **Unusual Fire Hazards:** Combustible liquid.. Product will produce a brief flash but will not support sustained combustion when in contact with open flame above the indicated flashpoint. **Stability** Unstable: Stable: X Conditions to Avoid: None known **Incompatibility (Materials to Avoid):** None known **Hazardous Decomposition/By Products:** None known **Hazardous Polymerization:** May Occur: Will Not Occur: X Conditions to Avoid: None known - **ACCIDENTAL RELEASE MEASURES Personal Precautions:** N/A **Environmental Precautions:** **DISPOSAL IS TO BE PERFORMED IN COMPLIANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS.** Small quantities may be slowly flushed down sewer with excess water or dispose as liquid scrap. Discard empty container in trash. **Steps To Be Taken in Case Material is Released or Spilled:** Use water spray or dilute and/or wash away spills to avoid exposure and to protect persons working to stop/repair leak **Possible Hazardous Reactions/Conditions:** None known **Conditions to Avoid:** None **Materials to Avoid:** None **Hazardous Decomposition Products:** None known **Other Recommendations:** None **STABILITY AND REACTIVITY TOXICOLOGICAL INFORMATION LD50 (rats oral):** >20 g/kg **ECOLOGICAL INFORMATION** No concerns at relevant environmental concentrations.

Control Measures

EXPOSURE CONTROLS, PERSONAL PROTECTION Respiratory Protection (Specify Type): None required with normal use. **Ventilation Local Exhaust:** Not necessary. **Special:** None Mechanical (General): Acceptable. **Other:** None **Eye Protection:** None required with normal use. **Industrial Setting:** If splash of solution is likely, chemical goggles may be needed. **Protective Gloves:** None required with normal use. **Industrial Setting:** Minimize skin contact with protective gloves (rubber, neoprene). **Other Protective Equipment:** None required with normal use. **Industrial Setting:** Use ventilation to minimize exposure to vapor or mist (ethanol).

**Spic and Span Heavy Duty
Degreaser**

Spic & Span Heavy Duty Degreaser

PROCTER & GAMBLE: SPIC AND SPAN HEAVY DUTY DEGREASER

SIGNS & SYMPTOMS OF EXPOSURE

- Ingestion: Possible mild gastrointestinal irritation with nausea, vomiting and/or diarrhea.
- Eye Contact: Eye contact may result in transient, superficial effects similar to those produced by mild toilet soaps.
- Skin: May cause mild skin irritation. Use on irritated or extremely dry skin may aggravate the existing condition.
- Inhalation: N/A

FIRST AID

- **Emergency Telephone Number:** 24hr P&G Operator - 1-513-983-1100 or call Local Poison Control Center
- **Inhalation:** N/A Eye contact: Flush thoroughly with water for 15 minutes. Get medical attention if irritation persists.
- **Skin:** Rinse exposed area with soap and water and discontinue use.
- **Ingestion:** Dilute with fluids and treat symptomatically. For large ingestions, call a physician.
- **Inhalation:** Remove to fresh air.
- **Other:** Product package has a caution statement: CAUTION: May cause eye irritation. EYE IRRITANT: Avoid eye contact. If eye contact occurs, flush with water for 15 minutes. If irritation persists, seek medical attention. If swallowed, drink a glass of water to dilute. Direct away from face and eyes when applying foam. KEEP OUT OF REACH OF CHILDREN

PRODUCT MONOGRAM

PROCTER & GAMBLE: SPIC AND SPAN HEAVY DUTY DEGREASER

MSDS Safety Information

All components are listed on the US TSCA Inventory. No components are affected by Significant New Use Rules(SNURs) under TSCA §5.

No components of Spic & Span Heavy Duty Degreaser are subject to California Proposition 65. **Chemicals required to be reported by SARA, Section 313 of Title III and of 40 CFR 372 Chemical Category Percent by Weight** Glycol ether 9.5% This information must included on all MSDSs that are copied and distributed for this material. The submission of this MSDS may be required by law, but this is not an assertion that the substance is hazardous when used in accordance with proper safety practices and normal handling procedures. Data supplied is for use only in connection with occupational safety and health. The information contained herein has been compiled from sources considered by Procter & Gamble to be dependable and is accurate to the best of the Company's knowledge. The information relates to the specific material designated herein, and does not relate to the use in combination with any other material or any other process. Procter & Gamble assumed no responsibility for injury to the recipient or third persons, for any damage to any property resulting from misuse of the controlled product.

Ingredients

Ingredients/Chemical Name: Water, anionic surfactant, butyl carbitol, sodium citrate,, sodium carbonate, sodium cumene

Contractor Summary

Procter & Gamble
CPG TN 6
2 Procter & Gamble Plaza
Cincinnati, OH 45202
Hazard Rating: 1 Health: 1 4=EXTREME
Flammability: 0 3=HIGH
Reactivity: 0 2= MODERATE
1=SLIGHT
Emergency Telephone Number: 24hr P&G Operator - 1-513-983-1100 or call Local Poison Control Center

Physical/Chemical Properties

Boiling Point □ F: N/A **Specific Gravity (H₂O=1):** 1.12
Vapor Pressure (mm Hg): N/A **Percent Volatile by Volume (%):**

sulfonate, tetrasodium EDTA, color and perfume Ingredients as defined by OSHA, 29 CFR 1910.1200. Chemical Name Common Name CAS No. Recommended Limits Composition Range LD50/LC50 Sodium carbonate Soda Ash 497-19-8 N/A 1-5% LD50=1.86 g/kg LC50=N/A Linear alkyl Benzene sulfonate C12.3 LAS 68081-81-2 N/A 1-4% LD50=0.65-1.26 g/kg LC50=N/A 2-aminoethanol Monoethanolamine 141-43-5 ACGIH TLV: 3ppm OSHA PEL: 3mg/m3 OSHA STEL: 6 ppm (15 min) 0.1-1%	N/A Vapor Density (Air=1): N/A Evaporation Rate (nBuOAc=1): N/K Odor Threshold: N/A Freezing Point: N/A Coefficient of Water/Oil Distribution: N/A pH (100% solution): 10.4 Scooped Density: N/A Solubility in Water: Completely Appearance and Odor: Clear purple liquid with pine perfume
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Health Hazards Data

Health Hazards (Acute and Chronic): Ingestion: May cause mild mucous membrane irritation Eye Contact: May cause mild eye irritation. Inhalation: May cause mild mucous membrane irritation Skin: May cause mild skin irritation **Signs and Symptoms of Exposure:** Ingestion: Possible mild gastrointestinal irritation with nausea, vomiting and/or diarrhea. Eye Contact: Eye contact may result in transient, superficial effects similar to those produced by mild toilet soaps. Skin: May cause mild skin irritation. Use on irritated or extremely dry skin may aggravate the existing condition. Emergency First Aid: Inhalation: N/A Eye contact: Flush thoroughly with water for 15 minutes. Get medical attention if irritation persists. Skin: Rinse exposed area with soap and water and discontinue use. Ingestion: Dilute with fluids and treat symptomatically. For large ingestions, call a physician. Inhalation: Remove to fresh air. **Other:** Product package has a caution statement: CAUTION: May cause eye irritation. EYE IRRITANT: Avoid eye contact. If eye contact occurs, flush with water for 15 minutes. If irritation persists, seek medical attention. If swallowed, drink a glass of water to dilute. Direct away from face and eyes when applying foam. KEEP OUT OF REACH OF CHILDREN

Handling and Disposal

Precautions To Be Taken in Handling and Storing: Store in a cool, dry, well ventilated area. **Other Precautions:** None known **DISPOSAL CONSIDERATIONS Waste Disposal Method:** Slowly flush down sewer with excess water or dispose as liquid scrap. **DISPOSAL IS TO BE PERFORMED IN COMPLIANCE WITH FEDERAL, STATE AND LOCAL REG.** Discard empty container in trash. **TRANSPORT INFO.DOT Classification:** Not regulated

Fire and Explosion Hazard Information

Flash Point (Method Used): N/A **Explosive Limits:** LEL: N/A UEL: N/A **Extinguishing Media:** CO₂, dry chemical, water, or "alcohol" foam. **Special Fire Fighting Procedures:** Use water to keep fire exposed containers cool. **Unusual Fire Hazards:** None known **Stability** Unstable: Stable: X Conditions to Avoid: None known **Incompatibility (Materials to Avoid):** None known **Hazardous Decomposition/By Products:** None known **Hazardous Polymerization:** May Occur: Will Not Occur: X Conditions to Avoid: None known **ACCIDENTAL RELEASE MEASURES** **Personal Precautions:** N/A **Environmental Precautions:** DISPOSAL IS TO BE PERFORMED IN COMPLIANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS. Small quantities may be slowly flushed down sewer with excess water or dispose as liquid scrap. Discard empty container in trash. **Steps To Be Taken in Case Material is Released or Spilled:** Use water spray or dilute and/or wash away spills to avoid exposure and to protect persons working to stop/repair leak. **STABILITY AND REACTIVITY Possible Hazardous Reactions/Conditions:** None known **Conditions to Avoid:** None **Materials to Avoid:** None **Hazardous Decomposition Products:** None known **Other Recommendations:** None **TOXICOLOGICAL INFORMATION** LD₅₀ = >5.0g/kg **ECOLOGICAL INFORMATION**
No concerns at relevant environmental concentrations.

Control Measures

Respiratory Protection (Specify Type): None required with normal use. **Ventilation** Local Exhaust: Not necessary. Special: None Mechanical (General): Acceptable. Other: None **Eye Protection:** None required with normal use. Industrial Setting: If splash of solution is likely, chemical goggles may be needed. **Protective Gloves:** None required with normal use. Industrial Setting: Minimize skin contact with protective gloves (rubber, neoprene). **Other Protective Equipment:** None required with normal use.

Spray Paint

SHERWIN-WILLIAMS CO: FLUORESCENT SPRAY PAINT, 3106 GREEN

SIGNS & SYMPTOMS OF EXPOSURE

- HLTH HAZ: OVEREXP TO HEXANE MAY CAUSE DMG TO NERVE TISSUES OF ARMS & LEGS (PERIPHERAL NEUROPATHY), RESULTING IN MUSCULAR WEAK & LOSS OF COORDINATION. THIS EFT MAY BE INCREASED BY PRESENCE OF METHYL ETHYL KETONE.
- PRLNGD OVEREXP TO SOLV INGR EDS LISTED MAY CAUSE ADVERSE EFTS TO LIVER, URINARY, BLOOD-FORMING, (SUPDAT)
- Medical Cond Aggravated By Exposure: NONE GENERALLY RECOGNIZED.

FIRST AID

- **Emergency Phone Number: 215-566-2917**
- INHAL: IF AFFECTED, REMOVE FROM EXPOSURE. RESTORE BRTHG. KEEP WARM & QUIET.
- SKIN: WASH AFFECTED AREA THOROUGHLY W/ SOAP & WATER. REMOVE CONTAMINATED CLOTHING & LAUNDER BEFORE REUSE.
- EYES: FLUSH EYES W/ LARGE AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. GET MED ATTN.
- INGEST: NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. DO NOT INDUCE VOMITING. GIVE SEVERAL GLASSES OF WATER. SEEK MED ATTN.

PRODUCT MONOGRAM

SHERWIN-WILLIAMS CO: FLUORESCENT SPRAY PAINT, 3106 GREEN

MSDS Safety Information

FSC: 8010 NIIN: 00-132-2861 MSDS Date: 09/01/1996
 MSDS Num: CHXPW
 Product ID: FLUORESCENT SPRAY PAINT, 3106 GREEN
 MFN: 02 Responsible Party Cage: 54636
 Name: SHERWIN-WILLIAMS CO
 Address: 31500 SOLON RD City: SOLON OH 44139
 Info Phone Number: 800-777-2966
 Emergency Phone Number: 215-566-2917
 Review Ind: Y Published: Y

Contractor Summary

Cage: 54636
 Name: SHERWIN-WILLIAMS CO THE
 Address: 101 PROSPECT AVE NW
 City: CLEVELAND OH 44115-1042
 Phone: 216-566-2242
 Item Description Information
 Item Name: LACQUER, FLOURESCENT

Ingredients

Cas: 74-98-6 RTECS #: TX2275000 Name: PROPANE. VP: 760
 % Wt: 14 OSHA PEL: 1000 PPM ACGIH TLV: ASPHYXANT
 Cas: 106-97-8 RTECS #: EJ4200000 Name: BUTANE. VP: 760
 % Wt: 8 OSHA PEL: 800 PPM ACGIH TLV: 800 PPM
 Cas: 110-54-3 RTECS #: MN9275000 Name: HEXANE (CERCLA).
 VP: 127 % Wt: 11 OSHA PEL: 500 PPM ACGIH TLV: 50 PPM EPA
 Rpt Qty: 1 LB DOT Rpt Qty: 1 LB

Physical/Chemical Properties

Spec Gravity: 0.857 (FP N)
 Evaporation Rate & Reference: FASTER THAN ETHER
 Appearance and Odor: NONE SPECIFIED BY MANUFACTURER.
 Reactivity Data
 Stability Indicator: YES
 Stability Condition To Avoid: NONE SPECIFIED BY
 MANUFACTURER.
 Materials To Avoid: NONE KNOWN.
 Hazardous Decomposition Products: BY FIRE: CARBON DIOXIDE,
 CARBON MONOXIDE.
 Hazardous Polymerization Indicator: NO
 Conditions To Avoid Polymerization: NOT RELEVANT

Ingredients

Cas: 107-83-5 RTECS #: SA2995000 Name: PENTANE, 2-METHYL-; (IS HEXANE ISOMERS). VP: 250 % Wt: 4 OSHA PEL: N/K (FP N) ACGIH TLV: N/K (FP N) Cas: 64742-89-8 RTECS #: 1003161VN Name: VM & P NAPHTHA. VP: 12% Wt: 16 OSHA PEL: N/K (FP N) ACGIH TLV: N/K (FP N)

Cas: 1330-20-7 RTECS #: ZE2100000 Name: XYLENE (SARA 313) (CERCLA). VP: 5.9 % Wt: 1 OSHA PEL: 100 PPM ACGIH TLV: 100 PPM; 150 STEL EPA Rpt Qty: 1000 LBS DOT Rpt Qty: 1000 LBS Cas: 67-64-1 RTECS #: AL3150000 Name: ACETONE (SARA 313) (CERCLA). VP: 180

% Wt: 12 OSHA PEL: 1000 PPM ACGIH TLV: 750 PPM; 1000 STEL EPA Rpt Qty: 5000 LBS DOT Rpt Qty: 5000 LBS Cas: 471-34-1 RTECS #: FF9335000 Name: CALCIUM CARBONATE % Wt: 3.3 OSHA PEL: N/K (FP N) ACGIH TLV: N/K (FP N) Cas: 7727-43-7 RTECS #: CR0600000

Name: BARIUM SULFATE (CONTAINING INGREDIENT 10) % Wt: 18.3 OSHA PEL: 15 MG/M3 TDUST ACGIH TLV: 10 MG/M3 TDUST Cas: 7440-39-3 RTECS #: CQ8370000 Name: BARIUM (SARA 313) % Wt: 10.8 OSHA PEL: 0.5 MG/M3 ACGIH TLV: N/K (FP N) RTECS #: 9999999VO Name: VOLATILE ORGANIC COMPOUND AS PERCENT BY WEIGHT PER BAAQMD RULE 49: 52.9; VOC TOTAL: 3.77 LBS/GAL OSHA PEL: N/K (FP N) ACGIH TLV: N/K (FP N) Name: SUPDAT: OVEREXP TO SOLVENTS W/PERMANENT BRAIN & NERVOUS SYSTEM DMG. WARNING: THESE PRODS CONTAIN CHEM/S KNOWN TO Name: ING 12: STATE OF CALIFORNIA TO CAUSE CANCER & BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM. Name: HNDLG/STOR PRECS: UNTIL ALL VAPS ARE GONE: KEEP AREA VENTD - DO NOT SMOKE- EXTING ALL FLAMES, PILOT LIGHTS & Name: ING 14: HEATERS - TURN OFF STOVES, ELEC TOOLS & APPLIANCES & ANY OTHER SOURCES OF IGNIT. CONSULT NFPA CODE. USE Name: ING 15: APPRVD BONDING & GROUNDING PROCS. CONTENTS UNDER PRESS. DO NOT PUNCTURE, INCIN OR EXPOSE TO TEMPS >330F. SOURCES COULD CAUSE CNTNR TO BURST. DO Name: ING 17: NOT TAKE INTERNALLY. KEEP OUT OF THE REACH OF CHILDREN. Name: OTHER PRECS: AS NUISANCE PARTICULATES (LISTED "AS DUST" IN INGRED SECTION) WHICH MAY BE PRESENT AT HAZ LEVELS Name: ING 19: ONLY DURING SANDING OR ABRADING OF DRIED FILM. IF NO SPECIFIC DUST (TDUST), 5 MG/M3 (RESPIRABLE FRACTION).

Health Hazards Data

LD50 LC50 Mixture: NONE SPECIFIED BY MANUFACTURER. Route Of Entry Inds - Inhalation: YES Skin: YES Ingestion: NO Carcinogenicity Inds - NTP: NO IARC: NO OSHA: NO Effects of Exposure: IRRIT OF EYES, SKIN & RESP SYS. MAY CAUSE NERVOUS SYS DEPRESS. EXTREME OVEREXP MAY RSLT IN UNCON & POSS DEATH. HDCH, DIZZ, NAUS & LOSS OF COORD ARE INDICATIONS OF EXCESSIVE EXPOS TO VAPORS OR SPRAY MISTS. REDNESS & ITCHING OR BURNING SENSATION MAY INDICATE EYE OR EXCESSIVE SKIN EXPOSURE. PRLNGD (EFTS OF OVEREXP) Explanation Of Carcinogenicity: NOT RELEVANT

Signs And Symptoms Of Overexposure: HLTH HAZ: OVEREXP TO HEXANE MAY CAUSE DMG TO NERVE TISSUES OF ARMS & LEGS (PERIPHERAL NEUROPATHY), RESULTING IN MUSCULAR WEAK & LOSS OF COORDINATION. THIS EFT MAY BE INCREASED BY PRESENCE OF METHYL ETHYL KETONE. PRLNGD OVEREXP TO SOLV INGR EDS LISTED MAY CAUSE ADVERSE EFTS TO LIVER, URINARY, BLOOD-FORMING, (SUPDAT) Medical Cond Aggravated By Exposure: NONE GENERALLY RECOGNIZED. First Aid: INHAL: IF AFFECTED, REMOVE FROM EXPOSURE. RESTORE BRTHG. KEEP WARM & QUIET. SKIN: WASH AFFECTED AREA THOROUGHLY W/ SOAP & WATER. REMOVE CONTAMINATED CLOTHING & LAUNDER BEFORE REUSE. EYES: FLUSH EYES W/ LARGE AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. GET MED ATTN. INGEST: NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. DO NOT INDUCE VOMITING. GIVE SEVERAL GLASSES OF WATER. SEEK MED ATTN.

Handling and Disposal

Spill Release Procedures: REMOVE ALL SOURCES OF IGNITION. VENTILATE AND REMOVE WITH INERT ABSORBENT. Neutralizing Agent: NONE SPECIFIED BY MANUFACTURER. Waste Disposal Methods: WASTE FROM THIS PROD MAY BE HAZ AS DEFINED UNDER RCRA 40 CFR 261. WASTE MUST BE TESTED FOR IGNITABILITY TO DETERMINE APPLIC EPA HAZ WASTE NUMBERS. DO NOT INCINERATE. DEPRESSURIZE CNTNR. DISPOSE OF IAW FED, STATE & LOCAL REGS REGARDING POLLUTION. Handling And Storage Precautions: CONTENTS ARE EXTREMELY FLAM. KEEP AWAY FROM HEAT, SPKS & OPEN FLAME. VAPS WILL ACCUMULATE READILY & MAY IGNITE EXPLOSIVELY. DURING USE & Other Precautions: INTENTIONAL MISUSE BY DELIB CONC & INHALING CONTENTS CAN BE HARMFUL/FATAL. USE ONLY W/ ADEQ VENT. AVOID BRTHG VAP & SPRAY MIST. AVOID CONTACT W/ SKIN & EYES. WASH HANDS AFTER USING. THESE COATINGS MAY CONTAIN MATLS CLASSIFIED

Transportation Information

Responsible Party: 54636 Trans ID NO: 137554 Product ID: FLUORESCENT SPRAY PAINT, 3106 GREEN
MSDS Prepared Date: 09/01/1996 Review Date: 01/14/1999 MFN: 2 Multiple KIT Number: 0 Detail DOT Information DOT PSN Code: LFD
DOT Proper Shipping Name: PAINT DOT PSN Modifier: INCLUDING PAINT, LACQUER, ENAMEL, STAIN, SHELLAC SOLUTIONS, VARNISH, POLISH, LIQUID FILLER, AND LIQUID LACQUER BASE Hazard Class: 3 UN ID Num: UN1263 DOT Packaging Group: II Label: FLAMMABLE LIQUID Special Provision: B52, T7, T30 Packaging Exception: 150 Non Bulk Pack: 173 Bulk Pack: 242 Max Qty Pass: 5 L Max Qty Cargo: 60 L Vessel Stow Req: B

Detail IMO Information IMO PSN Code: LCPIMO Proper Shipping Name: PAINT OR PAINT RELATED MATERIAL IMO PSN Modifier: (INCLUDING PAINT, LACQUER, ENAMEL, STAIN, SHELLAC SOLUTIONS VARNISH, POLISH, LIQUID FILLER AND LIQUID LACQUER BASE) OR (INCLUDING PAINT THINNING OR REDUCING COMPOUND) oIMDG Page Number: 3268 UN Number: 1263 UN Hazard Class: 3.2

IMO Packaging Group: I/II *Subsidiary Risk Label: -EMS Number: 3-05MED First Aid Guide NUM: 310 Detail IATA Information IATA PSN Code: SXI
IATA UN ID Num: 1263 IATA Proper Shipping Name: PAINT IATA PSN Modifier: (INCLUDING PAINT, LACQUER, ENAMEL, STAIN, SHELLAC, VARNISH, POLISH, LIQUID FILLER AND LIQUID LACQUER BASE) IATA UN Class: 3 IATA Label: FLAMMABLE LIQUID UN Packaging Group: II Packing Note Passenger: 305 Max Quant Pass: 5L Max Quant Cargo: 60L Packaging Note Cargo: 307 Exceptions: A7, A72 **Detail AFI Information** AFI PSN Code: SXIAFI Proper Shipping Name: PAINT OR PAINT RELATED MATERIAL AFI PSN Modifier: (INCLUDING PAINT, LACQUER, ENAMEL, STAIN, SHELLAC SOLUTIONS, VARNISH, POLISH, LIQUID FILLER AND LIQUID LACQUER BASE) OR (INCLUDING PAINT THINNING OR REDUCING COMPOUNDS) AFI Hazard Class: 3 AFI UN ID Num: UN1263 AFI Packing Group: III
Starfield Resources Inc. P5 Back Pack Reference: A7-3HAZCOM Label

Fire and Explosion Hazard Information

Flash Point Method: PMCC Flash Point Text: <0F, <-18C Lower Limits: 0.9% Upper Limits: 13.1%Extinguishing Media: CARBON DIOXIDE, DRY CHEMICAL, FOAM.Fire Fighting Procedures: USE NIOSH APPRVD SCBA & FULL PROT EQUIP (FP N). WATER SPRAY MAY BE INEFFECTIVE. IF WATER IS USED, FOG NOZZS ARE PREF. WATER MAY BE USED TO COOL CLSD CNTNRS(SUPDAT)Unusual Fire/Explosion Hazard: ISOLATE FROM HEAT, ELEC EQUIP, SPARKS & OPEN FLAME. CLOSED CNTNRS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT. APPLICATION TO HOT SURFS REQS SPECIAL (SUPDAT)

Control Measures

Respiratory Protection: IF PERSONAL EXPOS CANNOT BE CONTROLLED BELOW APPLIC LIMITS VY BENT, WEAR NIOSH APPRVD, PROPERLY FITTED ORGANIC VAPOR/PARTICULATE RESP. WHEN SANDING OR ABRADING DRIED FILM, WEAR DUST/MIST RESP APPRVD BY NIOSH FOR PROT AGAINST Ventilation: LOC EXHST PREF. GEN EXHST ACCEPTABLE IF EXPOS MAINTAINED BELOW APPLIC LIMS. REFER TO OSHA STDS 1910.98, 107, 108. Protective Gloves: CHEMICAL RESISTANT GLOVES.Eye Protection: ANSI APPRVD CHEM WORKERS GOGGLES (FP N). Other Protective Equipment: ANSI APPROVED EYE WASH & DELUGE SHOWER (FP N).Work Hygienic Practices: NONE SPECIFIED BY MANUFACTURER.Supplemental Safety and Health: FIRE FIGHT PROC: TO PVNT PRESS BUILD-UP & POSS AUTOIGNIT OR EXPLO WHEN EXPOSED TO EXTREME HEAT. EXPLO HAZS: PRECS. DURING EMER CNDTNS OVEREXP TO DECOMP PRODS MAY CAUSE A HLTH HAZ. SYMPS MAY NOT BE IMMED APPARENT. OBTAIN MED ATTN. EFTS OF OV EREXP: CARDIOVASCULAR & REPRO SYS. REPORTS HAVE ASSOC RPTD & PRLNGD

Liquid Tide with Bleach

PROCTER & GAMBLE -- LIQUID TIDE WITH BLEACH ALTERNATIVE

SIGNS & SYMPTOMS OF EXPOSURE

- Overexp: EYES: MAY CAUSE STINGING, TEARING, ITCHING, SWELLING, AND/OR REDNESS. SKIN: PROLONGED CONTACT WITH CONCENTRATED MATERIAL MAY BE DRYING OR TRANSIENTLY IRRITATING TO SKIN.
- INGESTION: MAY RESULT IN NAUSEA, VOMITING, AND/OR DIARRHEA.
- Med Cond Aggravated By Exp: NONE SPECIFIED BY MANUFACTURER

FIRST AID

- Emerg Ph #: 800-543-0485
- EYES: FLUSH WITH WATER FOR AT LEAST 15 MINUTES.
- INGESTION: GIVE A GLASSFUL OF WATER.
- SKIN: IF PROLONGED CONTACT OCCURS, RINSE THOROUGHLY WITH WATER. IF SPILLED ON CLOTHING, CHANGE CLOTHES. IF SYMPTOMS PERSIST OR REOCCUR, SEEK MEDICAL ATTENTION.
- INHALATION: REMOVE TO FRESH AIR. SUPPORT BREATHING (GIVE OXYGEN OR ARTIFICIAL RESPIRATION), (FP N).

PRODUCT MONOGRAM

PROCTER & GAMBLE -- LIQUID TIDE WITH BLEACH ALTERNATIVE

MSDS Safety Information

NSN: 793000N055973
 Manufacturer's CAGE: 74188
 Part No. Indicator: B
 Part Number/Trade Name: LIQUID TIDE WITH BLEACH ALTERNATIVE

Contractor Summary

Company's Name: PROCTER & GAMBLE
 Company's Street: IVORYDALE TECHNICAL CENTER
 Company's City: CINCINNATI
 Company's State: OH
 Company's Country: US
 Company's Zip Code: 45217
 Company's Emerg Ph #: 800-543-0485
 Company's Info Ph #: 800-543-0485
 Record No. For Safety Entry: 002
 Tot Safety Entries This Stk#: 002
 Status: SMJ
 Date MSDS Prepared: 01NOV90
 Safety Data Review Date: 10JAN97
 MSDS Serial Number: CCWMMH

Ingredients

Proprietary: NO
 Ingredient: CLEANING AGENT, ORGANIC (ANIONIC, NONIONIC AND CATIONIC SURFACTANTS, ENZYMES) Ingredient Sequence Number: 01 NIOSH (RTECS) Number: 1001966CA OSHA PEL: N/K (FP N) ACGIH TLV: N/K (FP N) Proprietary: NO Ingredient: WATER SOFTENERS Ingredient Sequence Number: 02 NIOSH (RTECS) Number: 1004438WS OSHA PEL: N/K (FP N) ACGIH TLV: N/K (FP N)
 Proprietary: NO Ingredient: DISPERSING AID Ingredient Sequence Number: 03 NIOSH (RTECS) Number: 1002503DA OSHA PEL: N/K (FP N) ACGIH TLV: N/K (FP N) Proprietary: NO Ingredient: BUFFERING AGENTS Ingredient Sequence Number: 04 NIOSH (RTECS) Number: 1000862BA OSHA PEL: N/K (FP N) ACGIH TLV: N/K (FP N) Proprietary: NO Ingredient: WATER Ingredient Sequence Number: 05 NIOSH (RTECS) Number: ZC0110000 CAS Number: 7732-18-5 OSHA PEL: N/K (FP N) ACGIH TLV: N/K (FP N) Proprietary: NO
 Ingredient: STABILIZING AGENTS Ingredient Sequence Number: 06
 NIOSH (RTECS) Number: 1009276SA OSHA PEL: N/K (FP N) ACGIH TLV: N/K (FP N) Proprietary: NO Ingredient: SOIL SUSPENDING AGENT Ingredient Sequence Number: 07 NIOSH (RTECS) Number: 1003747SS OSHA PEL: N/K (FP N) ACGIH TLV: N/K (FP N) Proprietary: NO Ingredient: FABRIC WHITENERS Ingredient Sequence Number: 08 NIOSH (RTECS) Number: 1003748FW OSHA PEL: N/K (FP N) ACGIH TLV: N/K (FP N) Proprietary: NO Ingredient: COLORANT Ingredient Sequence Number: 09 NIOSH (RTECS) Number: 1011188CD OSHA PEL: N/K (FP N) ACGIH TLV: N/K (FP N) Proprietary: NO Ingredient:

Physical/Chemical Properties

Appearance And Odor: DARK AMBER COLOR, PERFUMED
 Boiling Point: 210F, 99C
 Specific Gravity: 1.110 (H*2O=1)
 Solubility In Water: COMPLETELY SOLUBLE
 Percent Volatiles By Volume: 54

PERFUME Ingredient Sequence Number: 10 NIOSH (RTECS) Number: 1000511PU OSHA PEL: N/K (FP N) ACGIH TLV: N/K (FP N) Proprietary: NO Ingredient: ETHYL ALCOHOL (ETHANOL) Ingredient Sequence Number: 11 NIOSH (RTECS) Number: KQ6300000 CAS Number: 64-17-5 OSHA PEL: 1000 PPM ACGIH TLV: 1000 PPM

Health Hazards Data

LD50-LC50 Mixture: NONE SPECIFIED BY MANUFACTURER. Route Of Entry - Inhalation: YES Route Of Entry - Skin: YES Route Of Entry - Ingestion: YES Health Haz Acute And Chronic: ACUTE/CHRONIC: EYES: MAY CAUSE MILD TO MODERATE IRRITATION. SKIN: TRANSIENT IRRITATION WITH PROLONGED EXPOSURE TO CONCENTRATED MATERIAL. INGESTION: MAY CAUSE MILD GASTROINTESTINAL IRRITATION. Carcinogenicity - NTP: NO Carcinogenicity - IARC: NO Carcinogenicity - OSHA: NO Explanation Carcinogenicity: NOT RELEVANT. Signs/Symptoms Of Overexp: EYES: MAY CAUSE STINGING, TEARING, ITCHING, SWELLING, AND/OR REDNESS. SKIN: PROLONGED CONTACT WITH CONCENTRATED MATERIAL MAY BE DRYING OR TRANSIENTLY IRRITATING TO SKIN. INGESTION: MAY RESULT IN NAUSEA, VOMITING, AND/OR DIARRHEA. Med Cond Aggravated By Exp: NONE SPECIFIED BY MANUFACTURER Emergency/First Aid Proc: EYES: FLUSH WITH WATER FOR AT LEAST 15 MINUTES. INGESTION: GIVE A GLASSFUL OF WATER. SKIN: IF PROLONGED CONTACT OCCURS, RINSE THOROUGHLY WITH WATER. IF SPILLED ON CLOTHING, CHANGE CLOTHES. IF SYMPTOMS PERSIST OR REOCCUR, SEEK MEDICAL ATTENTION. INHALATION: REMOVE TO FRESH AIR. SUPPORT BREATHING (GIVE OXYGEN OR ARTIFICIAL RESPIRATION) (FP N).

Handling and Disposal

(CONTAINS BIODEGRADABLE SURFACTANTS). PREVENT SPILLS FROM REACHING A WATERWAY. SORBENTS MAY BE USED. Neutralizing Agent: NONE SPECIFIED BY MANUFACTURER. Waste Disposal Method: DISPOSAL IS TO BE PERFORMED IN COMPLIANCE W/ALL REGULATIONS. SMALL/HOUSEHOLD QUANTITIES MAY BE DISPOSED OF IN SEWER. FOR LARGER QUANTITIES, INCINERATION IS PREFERRED. DO NOT LANDFILL. DISPOSE OF I/AW LOCAL, STATE & FEDERAL REGULATIONS (FP N). Precautions-Handling/Storing: HARMFUL IF SWALLOWED. KEEP OUT OF REACH OF CHILDREN Other Precautions: NONE SPECIFIED BY MANUFACTURER. Spills If Matl Released/Spill: FLUSH SMALL QUANTITIES DOWN ACCEPTABLE SEWER

Fire and Explosion Hazard Information

Flash Point: >200F,>93C Flash Point Method: TCC Lower Explosive Limit: N/A Upper Explosive Limit: N/A Extinguishing Media: CARBON DIOXIDE, WATER.Special Fire Fighting Proc: WEAR NIOSH APPROVED SCBA & FULL PROTECTIVEEQUIPMENT (FP N). PRODUCT IS AN AQUEOUS SOLUTION CONTAINING ETHYL ALCOHOLAND DOES NOT SUSTAIN COMBUSTION.Unusual Fire And Expl Hazrds: NONE.Reactivity Data Stability: YES Cond To Avoid (Stability): NONE KNOWN.Materials To Avoid: NONE KNOWN.Hazardous Decomp Products: NONE KNOWN.Hazardous Poly Occur: NO Conditions To Avoid (Poly): NOT RELEVANT.

Control Measures

Respiratory Protection: NONE REQUIRED WITH NORMAL USE. USE NIOSH APPROVED RESPIRATOR APPROPRIATE FOR EXPOSURE OF CONCERN (FP N).Ventilation: LOCAL EXHAUST: NONE REQUIRED WITH NORMAL USE. MECHANICAL (GENERAL): NORMAL/GENERAL DILUTION VENTILATION IS ACCEPTABLE.Protective Gloves: RUBBER OR NEOPRENE GLOVES. Eye Protection: ANSI APPRVD CHEM WORKERS GOGGLES (FP N). Other Protective Equipment: EMERGENCY EYEWASH AND DELUGE SHOWER MEETING ANSI DESIGN CRITERIA (FP N).

Work Hygienic Practices: NONE SPECIFIED BY MANUFACTURER.Suppl. Safety & Health Data: NONE SPECIFIED BY MANUFACTURER.

Windex Glass Cleaner

DRACKETT -- WINDEX GLASS CLEANER POWERIZED FORMULA 90129 - GLASS CLEANER

SIGNS & SYMPTOMS OF EXPOSURE

- EYE CONTACT: SENSATION OF IRRITATION.
- Med Cond Aggravated By Exp: NONE KNOWN

FIRST AID

- **Company's Emerg Ph #: 513-632-1500**
- THIS PRODUCT IS NOT AN EYE OR SKIN IRRITANT OR TOXIC IF INGESTED
- TO LESSEN DISCOMFORT, EYES AND SKIN: FLUSH EYES
- SKIN WITH WATER, IF INGESTED: DRINK MILK OR WATER FREELY.

PRODUCT MONOGRAM

DRACKETT -- WINDEX GLASS CLEANER POWERIZED FORMULA 90129 - GLASS CLEANER

MSDS Safety Information

NSN: 7930013813407 Manufacturer's CAGE: 85234 Part No. Indicator: A
 Part Number/Trade Name: WINDEX GLASS CLEANER POWERIZED
 FORMULA 90129 Date MSDS Prepared: 24FEB92 Safety Data Review
 Date: 13SEP94 Supply Item Manager: GSA
 MSDS Serial Number: BVNLQ
 Hazard Characteristic Code: NK Unit Of Issue: BX
 Unit Of Issue Container Qty: 12 - 20 OZ
 Type Of Container: PLASTIC

Contractor Summary

Item Name: GLASS CLEANER Company's Name: DRACKETT CO
 Company's Street: 5020 SPRING GROVE AVE Company's City:
 CINCINNATI Company's State: OH Company's Country: US Company's
 Zip Code: 45232-1988
 Company's Emerg Ph #: 513-632-1500
 Company's Info Ph #: 513-632-1500
 Record No. For Safety Entry: 001 Tot Safety Entries This Stk#: 002
 Status: SM

Ingredients

Proprietary: NO
 Ingredient: 2-BUTOXYETHANOL (SARA III)
 Ingredient Sequence Number: 01
 Percent: <5
 NIOSH (RTECS) Number: KJ8575000
 CAS Number: 111-76-2

Physical/Chemical Properties

Appearance And Odor: CLEAR, BLUE LIQUID WITH SLIGHT
 AMMONIA ODOR
 Boiling Point: 212F, 100C
 Vapor Pressure (MM Hg/70 F): 17.4
 Vapor Density (Air=1): 1.2
 Specific Gravity: 0.99 (WATER=1)

OSHA PEL: 25 PPM

ACGIH TLV: 25 PPM

Other Recommended Limit: NONE RECOMMENDED

Evaporation Rate And Ref: 0.3 (BU AC=1)

Solubility In Water: 100%

pH: 11

SYSTEMIC POISONING BY THIS ROUTE IS NOT EXPECTED. HEALTH HAZARDS: NOT APPLICABLE Carcinogenicity - NTP: NO Carcinogenicity - IARC: NO Carcinogenicity - OSHA: NO Signs/Symptoms Of Overexp: EYE CONTACT: SENSATION OF IRRITATION.Med Cond Aggravated By Exp: NONE KNOWN Emergency/First Aid Proc: THIS PRODUCT IS NOT AN EYE OR SKIN IRRITANT OR TOXIC IF INGESTED SO AS TO REQUIRE FIRST AID PROCEDURES ON THE PRODUCT LABEL. UNDER THE CONSUMER PRODUCT SAFETY COMMISSION RULES, HOWEVER THE FOLLOWING STEPS MAY BE TAKEN TO LESSEN DISCOMFORT. EYES AND SKIN: FLUSH EYES OR SKIN WITH WATER. IF INGESTED: DRINK MILK OR WATER FREELY.

Handling and Disposal

Steps If Matl Released/Spill: IN CASE OF SPILL OR LEAK FLUSH AREA WITH WATER. KEEP OUT OF WATERSHEDS AND WATER SYSTEMS. Waste Disposal Method: DISPOSE ONLY IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS. Precautions-Handling/Storing: NOT APPLICABLE Other Precautions: UNPLUG ELECTRICAL APPLIANCES BEFORE USING PRODUCT ON THEM. Trans Data Review Date: 94256 DOT PSN Code: ZZZ DOT Proper Shipping Name: NOT REGULATED BY THIS MODE OF TRANSPORTATION IMO PSN Code: ZZZ IMO Proper Shipping Name: NOT REGULATED FOR THIS MODE OF TRANSPORTATION IATA PSN Code: ZZZ IATA Proper Shipping Name: NOT REGULATED BY THIS MODE OF TRANSPORTATION AFI PSN Code: ZZZ AFI Prop. Shipping Name: NOT REGULATED BY THIS MODE OF TRANSPORTATION MMAC Code: NK

Fire and Explosion Hazard Information

Flash Point: 212F, 100C Flash Point Method: SCC Extinguishing Media: IF INVOLVED IN FIRE,USE WATER DRY ALCOHOL TYPE/ALL PURPOSE FOAM, DRY CHEMICAL, CARBON DIOXIDE, OTHER CLASS B EXTINGUISHERS. Special Fire Fighting Proc: WEAR FULL PROTECT EQUIPMENT INCLUDING PRESSURE DEMAND SELF CONTAINED BREATHING APPARATUS AND TURNOUT EQUIPMENT. Unusual Fire And Expl Hazrds: NONE KNOWN Stability: YES Cond To Avoid (Stability): NONE Hazardous Poly Occur: NO

Control Measures

Respiratory Protection: NOT REQUIRED WHEN USED ACCORDING TO LABEL INSTRUCTIONS. Ventilation: NOT REQUIRED WHEN USED ACCORDING TO LABEL INSTRUCTIONS. Protective Gloves: NOT REQ'D WHEN USED ACCORDING TO LABEL Eye Protection: NOT REQ'D WHEN USED ACCORDING TO LABEL Other Protective Equipment: NOT REQ'D WHEN USED ACCORDING TO LABEL Work Hygienic Practices: NONE REQ'D WHEN USED ACCORDING TO LABEL INSTRUCTIONS.