REVISION DATE: Feb 01 2000

SECTION 2 COMPOSITION, INFORMATION ON INGREDIENTS

COMPONENT: SOLVENT-REFINED HEAVY PARAFFINIC DISTILLATE
CAS NUMBER: 64741-88-4
EC NUMBER (EINECS): 265-090-8
EC INDEX NUMBER: 649-454-00-7
PERCENTAGE: 98.0-100.0

(See Section 8, "Exposure Controls, Personal Protection", for exposure guidelines)

SECTION 3 HAZARDS IDENTIFICATION

NFPA RATINGS (SCALE 0-4): HEALTH=0 FIRE=1 REACTIVITY=0

EMERGENCY OVERVIEW:
COLOR: yellow
PHYSICAL FORM: oil
ODOR: hydrocarbon odor
MAJOR HEALTH HAZARDS: Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis.

POTENTIAL HEALTH EFFECTS:
INHALATION:
No significant health hazards identified.
SKIN CONTACT:
Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis. High pressure skin injections are serious medical emergencies. Injury will not appear serious at first; within a few hours, tissue will become swollen, discolored and extremely painful.
EYE CONTACT:
No significant health hazards identified.
INGESTION:
Ingestion causes gastrointestinal irritation and diarrhea.

SECTION 4 FIRST AID MEASURES

INHALATION: If adverse effects occur, remove to uncontaminated area. Get medical attention.

SKIN CONTACT: Wash exposed skin with soap and water. Remove contaminated clothing and thoroughly clean and dry before reuse. Accidental high pressure injection through the skin requires immediate medical attention. Get medical attention if irritation develops.

EYE CONTACT: Flush eyes with plenty of water.

INGESTION: If swallowed, drink plenty of water. Get immediate medical attention. Induce vomiting only at the instructions of a physician. Do not

give anything by mouth to unconscious or convulsive person.

SECTION 5 FIRE FIGHTING MEASURES

FIRE AND EXPLOSION HAZARDS: Slight fire hazard.

EXTINGUISHING MEDIA: carbon dioxide, regular dry chemical, regular foam, water

FIRE FIGHTING: Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas. Water or foam may cause frothing.

FIRE FIGHTING PROTECTIVE EQUIPMENT: Firefighters should wear full bunker gear, including a positive pressure self contained breathing apparatus.

FLASH POINT: 468 F (242 C)
LOWER FLAMMABLE LIMIT: 1 % by volume
UPPER FLAMMABLE LIMIT: 7 % by volume

FLAMMABILITY CLASSIFICATION: Not Flammable.

HAZARDOUS COMBUSTION PRODUCTS:
Thermal decomposition products or combustion: hydrocarbons, oxides of carbon, oxides of nitrogen, oxides of phosphorus, oxides of sulfur, oxides of zinc

SECTION 6 ACCIDENTAL RELEASE MEASURES

Stop leak if possible without personal risk. Small spills: Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal. Keep unnecessary people away, isolate hazard area and deny entry. Large spills: Dike for later disposal. Cover with plastic sheet or tarp to minimize spreading and protect from contact with water. Prevent spreading by diking, ditching, or absorbing on inert materials.

SECTION 7 HANDLING AND STORAGE

STORAGE: Avoid extremes in storage temperatures. Store in a cool, dry, well-ventilated area. Store away from heat, ignition sources, and open flame in accordance with applicable regulations. Keep container tightly closed. Do not store in unlabeled containers.

HANDLING: Keep away from all ignition sources. Use only with adequate ventilation. Do not eat, drink or smoke in areas of use or storage. Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet facilities. Wash thoroughly after work using soap and water. Remove contaminated clothing and thoroughly clean and dry before reuse.
SPECIAL PRECAUTIONS: Empty containers may contain toxic,

flammable/combustible or explosive residue or vapors. Do not cut, grind, drill, weld, reuse or dispose of containers unless adequate precautions are taken against these hazards.

SECTION 8 EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS:
SOLVENT-REFINED HEAVY PARAFFINIC DISTILLATE:
MINERAL OIL MIST:
5 mg/m3 OSHA TWA
5 mg/m3 ACGIH TWA (Notice of Intended Changes 1993-1994)
10 mg/m3 ACGIH STEL (Notice of Intended Changes 1993-1994)
5 mg/m3 MEXICO TWA
10 mg/m3 MEXICO STEL

VENTILATION: Use with adequate ventilation. Control airborne concentrations below the exposure guidelines.

EYE PROTECTION: None required; however, use of eye protection is good industrial practice.

CLOTHING: Avoid repeated or prolonged contact. Wear protective clothing if prolonged or repeated contact is likely.

GLOVES: Wear protective gloves if prolonged or repeated contact is likely.

PROTECTIVE MATERIAL TYPES: neoprene

RESPIRATOR: Use with adequate ventilation.
Avoid breathing vapor or mist.
If ventilation is inadequate, use a NIOSH certified respirator with an organic vapor cartridge and P95 particulate filter.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: liquid
COLOR: yellow
PHYSICAL FORM: oil
ODOR: hydrocarbon odor
BOILING POINT: Not available
FREEZING POINT: Not available
POUR POINT: -26 F (-32 C)
VAPOR PRESSURE: <1 mmHg @ 20 C
VAPOR DENSITY (air=1): >1
SPECIFIC GRAVITY (water=1): 0.87
BULK DENSITY: 0.880 g/cm3
WATER SOLUBILITY: insoluble in cold water
PH: Not available

VOLATILITY: negligible
ODOR THRESHOLD: Not available
EVAPORATION RATE: slower than ether

VISCOSITY: 27.3 cP @ 40 C
COEFFICIENT OF WATER/OIL DISTRIBUTION: Not available

SECTION 10 STABILITY AND REACTIVITY

REACTIVITY: Stable at normal temperatures and pressure.

CONDITIONS TO AVOID: Avoid heat, flames, sparks and other sources of ignition. Avoid contact with incompatible materials.

INCOMPATIBILITIES: strong oxidizing materials

HAZARDOUS DECOMPOSITION:
Thermal decomposition products or combustion: hydrocarbons, oxides of carbon, oxides of nitrogen, oxides of phosphorus, oxides of sulfur, oxides of zinc

POLYMERIZATION: Will not polymerize.

SECTION 11 TOXICOLOGICAL INFORMATION

EYE IRRITATION: Testing not conducted. See Other Toxicity Data.

SKIN IRRITATION: Testing not conducted. See Other Toxicity Data.

DERMAL LD50: Testing not conducted. See Other Toxicity Data.

ORAL LD50: Testing not conducted. See Other Toxicity Data.

INHALATION LC50: Testing not conducted. See Other Toxicity Data.

OTHER TOXICITY DATA:
Specific toxicity tests have not been conducted on this product. Our hazard evaluation is based on information from similar products, the ingredients, technical literature, and/or professional experience.

No component of this product present at levels greater than 0.1% is identified as a carcinogen by the U.S. National Toxicology Program, the U.S. Occupational Safety and Health Act, or the International Agency on Research on Cancer (IARC).

SECTION 12 ECOLOGICAL INFORMATION

Ecological testing has not been conducted on this product by BP Amoco.

SECTION 13 DISPOSAL CONSIDERATIONS

Dispose in accordance with all applicable regulations.

SECTION 14 TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION: Not regulated.

CANADIAN TRANSPORTATION OF DANGEROUS GOODS: Not regulated.

LAND TRANSPORT ADR/RID: Not regulated.

AIR TRANSPORT IATA/ICAO: Not regulated.

MARITIME TRANSPORT IMDG: Not regulated.

SECTION 15 REGULATORY INFORMATION

CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR Part 302.4): This product is not reportable under 40 CFR Part 302.4.

SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR Part 355): This product is not regulated under Section 302 of SARA and 40 CFR Part 355.

SARA TITLE III SECTION 311/312 HAZARDOUS CATEGORIZATION (40 CFR Part 370):
- ACUTE: N
- CHRONIC: N
- FIRE: N
- REACTIVE: N
- SUDDEN RELEASE: N

SARA TITLE III SECTION 313 (40 CFR Part 372): This product is not regulated under Section 313 of SARA and 40 CFR Part 372.

STATE REGULATIONS:
- California Proposition 65: N

TSCA INVENTORY STATUS: Listed on inventory.

OSHA HAZARD COMMUNICATION STANDARD: Contains a component listed by ACGIH. Contains a component listed by OSHA.

EC INVENTORY (EINECS/ELINCS): Not determined.

JAPAN INVENTORY (MITI): Not determined.

AUSTRALIA INVENTORY (AICS): Not determined.

KOREA INVENTORY (ECL): Not determined.

CANADA INVENTORY (DSL): Not determined.

PHILIPPINE INVENTORY (PICCS): Not determined.

CHINA INVENTORY (IECS): Not determined.

SECTION 16 OTHER INFORMATION

Prepared by: Product Stewardship and Toxicology

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This Material Safety Data Sheet conforms to the requirements of ANSI Z400.1. NOTICE: The information presented herein is based on data considered to be accurate as of the date of preparation of this Material Safety Data Sheet. However, no warranty or representation, express or implied, is made as to the accuracy or completeness of the foregoing data and safety information, nor is any authorization given or implied to practice any patented invention without a license. In addition, no responsibility can be assumed by vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the product.

JET B FUEL

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*                        M S D S                          *
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*  Canadian Centre for Occupational Health and Safety     *
* * * * * * * * * * * * * Issue : 2001-1 (February, 2001) *
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*** IDENTIFICATION ***

MSDS RECORD NUMBER : 2483109
PRODUCT NAME(S) : TURBINE FUEL AVIATION, WIDE CUT TYPE
ESSO TURBO FUEL B
ESSO JET B
JET B
TURBO FUEL B
TURBO FUEL B F40
TURBO FUEL B JP4
ESSO TURBO FUEL B <FSII>
JET B <FSII>
AVIATION TURBINE FUEL <JP4>
CAN/CGSB-3.22 GRADE F40
ESSO JET B <FSII>
PRODUCT IDENTIFICATION : MSDS Number: 08524
DATE OF MSDS : 2000-06-15
CURRENCY NOTE : This MSDS was provided to CCOHS in electronic form on 2000-12-14

*** MANUFACTURER INFORMATION ***

MANUFACTURER : Imperial Oil (Products Division)
ADDRESS : 111 St Clair Avenue West
Toronto Ontario
Canada M5W 1K3
Telephone: 416-968-4111

*** SUPPLIER/DISTRIBUTOR INFORMATION ***

SUPPLIER/DISTRIBUTOR : Imperial Oil (Products Division)
ADDRESS : 111 St Clair Avenue West
Toronto Ontario
Canada M5W 1K3
Telephone: 416-968-4111

*** MATERIAL SAFETY DATA ***

Date Prepared: June 15, 2000
Supersedes: April 21, 1999
MSDS Number: 08524

1. PRODUCT INFORMATION

Product Identifier: TURBINE FUEL AVIATION, WIDE CUT TYPE
ESSO TURBO FUEL B
ESSO JET B
JET B
TURBO FUEL B
TURBO FUEL B F40
TURBO FUEL B JP4
ESSO TURBO FUEL B <FSII>
JET B <FSII>
AVIATION TURBINE FUEL <JP4>
CAN/CGSB-3.22 GRADE F40
ESSO JET B <FSII>

Application and Use: Aviation turbine fuel

Product Description: A mixture of aliphatic and aromatic hydrocarbons and additives.

REGULATORY CLASSIFICATION

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

TDG INFORMATION (RAIL/ROAD):

Shipping Name: FUEL, AVIATION, TURBINE ENGINES
Class: 3
Packing Group: II
PIN Number: UN1863

Please be aware that other regulations may apply.

TELEPHONE NUMBERS

Emergency 24 hr. (519) 339-2145
Technical Info. (800) 268-3183

MANUFACTURER/SUPPLIER:

IMPERIAL OIL
Products Division
111 St Clair Avenue West
Toronto, Ontario
M5W 1K3
(416) 968-4441

2. REGULATED COMPONENTS

The following components are defined in accordance with sub-paragraph 13(a)(i) to (iv) or paragraph 14(a) of the Hazardous Products Act:

NAME	%	CAS #	
Kerosene, straight run	40-70 V/V	8008-20-6	LD50:>5g/kg,oral,rat
Naphtha, full range	30-60 V/V	64741-42-0	
Ethylene Glycol Monomethyl Ether	0-0.15 V/V	109-86-4	LD50:2.4g/kg,orl,rat LD50:0.8g/kg,orl,rab
Diethylene glycol monomethyl ether	0-0.15 V/V	111-77-3	LD50:9.2g/kg,orl,rat LD50:6.6g/kg,skn.rbt

3. TYPICAL PHYSICAL & CHEMICAL PROPERTIES

Physical State: Liquid
Specific gravity: not available
Viscosity: 0.60 cSt at 40 deg C
Vapour Density: 4
Boiling Point: 40 to 270 deg C
Evaporation rate: <1 (1= n-butylacetate)
Solubility in water: negligible
Freezing/Pour Point: -58 deg C ASTM D 2386
Odour Threshold: not available
Vapour Pressure: 21 kPa at 38 deg C
Density: 0.78 g/cc at 15 deg C
Appearance/odour: White or pale yellow liquid, petroleum odour

4. HEALTH HAZARD INFORMATION

NATURE OF HAZARD

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:
Irritating.
Frequent or prolonged contact may irritate the skin and cause a skin rash (dermatitis).
Low toxicity.

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:
May contain ethylene glycol monomethyl ether (EGME). Prolonged and/or repeated exposure through inhalation or extensive skin contact with EGME may result in toxic effects on the blood, the blood producing system, the kidneys, the male reproductive system and the embryo/fetus.
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.).
Contains diethylene glycol monomethyl ether (DIEGME). Prolonged and repeated exposure through inhalation or extensive skin contact with DIEGME may result in toxic effects on the kidneys, the reproductive system and/or the embryo/fetus.

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.
For Benzene (skin) 1 ppm TWA for 8 hour workday.

ACGIH recommends:
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 2-Methoxyethanol, (skin) 5 ppm (16 mg/m3).

Local regulated limits may vary.

5. FIRST AID MEASURES

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.

6. PREVENTIVE AND CORRECTIVE 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.
Use explosion-proof ventilation equipment.

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 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.
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.

7. FIRE AND EXPLOSION HAZARD

Flashpoint and method: -18 deg C COC ASTM D92

Autoignition: NA Flammable Limits: LEL: 0.6% UEL: 8.0%

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.
Decomposes; flammable/toxic gases will form at elevated temperatures (thermal decomposition).
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 and traces of oxides of sulphur
In addition, small amounts of nitrogen oxides will be formed.

8. 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:
See: Hazardous Combustion Products

9. NOTES

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

Boiling point change.

REVISION SUMMARY:
Since 21 April 1999, this MSDS has been revised in Section(s):
2, 3

10. PREPARATION

Date Prepared: June 15, 2000
Prepared by: Lubricants & Specialties
IMPERIAL OIL
Products Division
111 St Clair Avenue West
Toronto, Ontario
M5W 1K3
(800) 268-3183

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."

LATEX PAINTS - ALL

M S D S

Canadian Centre for Occupational Health and Safety

Issue : 2001-1 (February, 2001)

*** IDENTIFICATION ***

MSDS RECORD NUMBER : 1641578
PRODUCT NAME(S) : LATEX PAINTS - ALL
Water based paint
PRODUCT IDENTIFICATION : #12
PRODUCT CODES C100, C105, C150, D5000, D5050, D5090, D5100, D5150, D5300, D5400, D6050
DATE OF MSDS : 1998-02-02

*** MANUFACTURER INFORMATION ***

MANUFACTURER : Para Inc
ADDRESS : 11 Kenview Boulevard
Brampton Ontario
Canada L6T 5G5
Telephone: 905-792-0940 (Information)
EMERGENCY TELEPHONE NO. : 905-792-0940
613-996-6666 (CANUTEC, after hours, in case of emergency only)

SECTION I - PRODUCT AND PREPARATION INFORMATION

TRADE NAME : LATEX PAINTS - ALL

PREPARATION DATE.. Feb. 2, 1998 PREPARED BY...Don Warren
SUPERCEDES.. March 27, 1996 REASON...Additional product codes

PRODUCT CODES.. C100, C105, C150, D5000, D5050, D5090, D5100, D5150, D5300, D5400, D6050
(Note: Where applicable, the above product codes also represent tint base codes for each.)

CHEMICAL NAME.. Water based paint HMIS RATING: Health...1
CHEMICAL FAMILY.. Mixture Flammability...0
FORMULA.. Not applicable Reactivity...0

PRODUCT USE.. Decorative and/or protective coatings for various substrates.

SECTION II - HAZARDOUS INGREDIENTS

CHEMICAL IDENTITY/CAS NUMBER	%(WT)	LC50 (ppm)	LD50 (mg/kg)
No hazardous ingredients			

SECTION III - PHYSICAL DATA

PHYSICAL STATE (room temperature).. liquid
ODOUR AND APPEARANCE.. opaque liquid, mild odour
BOILING POINT - (centigrade).. > 100'C
FREEZING POINT - (centigrade).. < 0'C
PERCENT VOLATILE BY VOLUME.. 60 - 75%
SPECIFIC GRAVITY.. 1.0 - 1.6
EVAPORATION RATE (n-butyl acetate = 1).. 0.36
VAPOUR PRESSURE.. 2.3 KPa
VAPOUR DENSITY (air = 1).. n/a
pH.. 8-9
COEFFICIENT OF OIL/WATER DISTRIB'N.. n/a
SOLUBILITY IN WATER.. partially
COATINGS VOC (less water).. 25 - 236 gm/L

SECTION IV - FIRE OR EXPLOSION HAZARDS

CONDITIONS OF FLAMMABILITY.. Wet paint is non-flammable, but dried film may burn if exposed to flame, but will not support combustion.
EXTINGUISHING MEDIA.. n/a
HAZARDOUS COMBUSTION PRODUCTS.. Carbon monoxide, carbon dioxide, smoke.
SPECIAL FIRE FIGHTING PROCEDURES.. n/a
FLASH POINT (method).. n/a
UPPER FLAMMABILITY LIMITS(UEL).. n/a
LOWER FLAMMABILITY LIMITS(LEL).. n/a
AUTO-IGNITION TEMPERATURE.. n/a
SENSITIVITY TO MECHANICAL IMPACT.. none
SENSITIVITY TO STATIC DISCHARGE.. n/a

SECTION V - REACTIVITY DATA

STABILITY.. Stable
CONDITIONS TO AVOID.. Very high temperatures
INCOMPATIBLE SUBSTANCES.. Strong oxidizing agents

HAZARDOUS DECOMPOSITION PRODUCTS.. Not applicable
HAZARDOUS POLYMERIZATION.. Will not occur

SECTION VI - TOXICOLOGICAL PROPERTIES

SKIN CONTACT.. none
SKIN ABSORPTION.. none
EYE CONTACT.. Irritating but will not injure eye tissue.
INHALATION.. none
INGESTION.. May cause nausea, vomiting.

EFFECTS OF ACUTE EXPOSURE.. none
EFFECTS OF CHRONIC EXPOSURE.. none

EXPOSURE LIMITS: CHEMICAL COMPONENT OSHA/PEL ACGIH/TLV
No hazardous ingredients

IRRITANCY.. May cause eye irritation.
SENSITIZATION.. none
CARCINOGENICITY.. none REPRODUCTIVE TOXICITY...none
TERATOGENICITY.. none MUTAGENICITY...none
TOXICOLOGICALLY SYNERGISTIC PRODUCTS.. none known

SECTION VII - PREVENTIVE MEASURES

HAND PROTECTION.. Not normally required.
EYE PROTECTION.. Safety glasses or goggles.
RESPIRATORY PROTECTION.. Combined dust and organic vapour canister when spraying or using in a poorly ventilated area.
BODY PROTECTION.. No special clothing required.
FOOT PROTECTION.. Safety shoes if handling pails.
VENTILATION CONTROLS.. Good local ventilation, exhaust fans and/or open windows.
STEPS TO BE TAKEN IN CASE OF A LEAK OR SPILL.. Scoop up and return to original container, soak up residue with absorbent. Prevent from entering storm or sanitary sewers.
WASTE DISPOSAL METHOD.. Approved waste disposal firm.
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE.. Keep from freezing.
SPECIAL SHIPPING REQUIREMENTS.. Keep from freezing.

SECTION VIII - FIRST AID MEASURES

SKIN CONTACT.. Wash with water.
EYE CONTACT.. Rinse with clean water for 15 minutes. Get medical attention if irritation persists.
INHALATION.. Remove to fresh air.
INGESTION.. Consult a physician.

SECTION IX - REGULATORY INFORMATION

WHMIS CLASSIFICATION.. Not a controlled product
TDG CLASSIFICATION.. N/R
TDG SHIPPING NAME.. N/R
UN NUMBER.. N/R
TSCA (U.S.A.).. All ingredients on TSCA inventory
CEPA (CANADA).. All ingredients on DSL (Domestic Substances List)

DISCLAIMER: All information, recommendations and suggestions appearing herein concerning these products are based upon tests and data believed to be reliable. Therefore it is the user's responsibility to determine the safety and suitability for his or her own use of these products. Since the actual use or misuse is beyond our control, no guarantee, expressed or implied, is made by Para Inc. as to the effects of such use, nor does Para Inc. assume any liability arising out of the use or misuse by others of this product.

.: [ ]; Class: [ ] Div.: [ ]; Class: [ ] Div.: [ ].

TRANSPORTATION :

	UN/NA	CLASS	P.G.	SHIPPING NAME
TDG :	2211	9.1	III	Polymeric beads, expandable
IATA:	2211	9	III	Polymeric beads, expandable
IMDG:	2211	9	III	Polymeric beads, expandable

SPECIAL PROVISIONS :
44

PREPARED / REVISED BY: BASF CANADA INC. (416) 675-3611
DATE : 1999/01/28

LEAD ACID BATTERIES

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*                                                 *
*  Canadian Centre for Occupational Health and Safety  *
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*** IDENTIFICATION ***

MSDS RECORD NUMBER : 624438
PRODUCT NAME(S) : Lead Acid type battery
PRODUCT IDENTIFICATION : T-MS-105
DATE OF MSDS : 1993-02-08

*** MANUFACTURER INFORMATION ***

MANUFACTURER : GNB Batteries (Canada) Inc
ADDRESS : 275 Lewis Street
Fort Erie Ontario
Canada L2A 5N6
Telephone: 905-871-5600
Fax: 905-871-6310

*** MATERIAL SAFETY DATA ***

T-MS-105 - EFFECTIVE February 8, 1993
REPLACING: March 15, 1992
TECHNICAL BULLETIN: Material Safety Data Sheet
SUBJECT TO CHANGE WITHOUT NOTICE

1. GENERAL INFORMATION

a) Product Name: Lead acid type battery
b) Product Type: (I) Wet Cells (Stationary, Motive Power and Railroad type batteries)
(II) Sealed modules
c) Application DC Power Source (Rechargeable)

2. BASIC COMPONENTS*
a) Lead alloy: Major component - Lead
Minor components -
Antimony or calcium and traces of arsenic (for wet cells)
Calcium, antimony and cadmium (for sealed modules)
b) Lead dioxide (active material)
c) Copper, stainless steel, brass etc. (used as hardware and other external components)
d) Sulfuric Acid (battery electrolyte)
e) Plastic materials like styrene-acrylonitrile copolymer, polypropylene or polycarbonate (battery container); synthetic rubber separators, glass mats, rubber washers etc. are also used.

* percentage of these components vary with the type of product.

3. PHYSICAL AND TOXICOLOGICAL DATA

a) Lead: Toxic, TLV 0.1 mg/M3, S.G. 11,34, m.p. 327 deg C.
b) Antimony: Toxic, TLV 0.5 mg/M3, S.G. 6.68, m.p. 630 deg C
c) Calcium: Nontoxic, m.p. 842 deg C, S.G. 1.54.
d) Cadmium: Toxic, TLV 0.2 mg/M3, S.G. 8.64, m.p 321 deg C.
Note: Physical and toxicological properties of a) to d) above vary with alloy composition.
e) Sulfuric acid: Corrosive, TLV 1.0 mg/M3, reacts with alkaline materials like caustic soda or soda ash; soluble in water. Battery electrolyte is 29-42 percent solution water, S.G. 1.215 - 1.300
f) Plastic Container Materials: Plastic materials used for battery containers are nontoxic solids. They are attacked by organic solvents and may be flammable if exposed to excessive heat or open flames.

(TLV = Threshold Limiting Value)
(SG = Specific Gravity)
(m.p. = melting point)

4. BY-PRODUCTS

Hydrogen and Oxygen Gasses	These gases generated at the end of charge of the battery could form explosive mixtures with air if proper ventilation is not provided. Explosive range for hydrogen in air is 4.1-74.2%.

5. PRECAUTIONS

a) Cells should not be exposed to excessive heat, open flames or freezing conditions. ABSOLYTE (R) type sealed modules however can withstand freezing conditions.
b) Cell jars are likely to be damaged on contact with organic solvents or detergents. Do not use such materials for the purpose of cleaning the cells.
c) Use protective gloves, acid resistant clothes and boots as well as safety glasses while working in the battery room.
d) Acid spills should be carefully neutralized by soda ash or baking soda. Neutralizing chemicals should not be allowed to enter the cells as they chemically react with the electrolyte.

6. HEALTH HAZARDS

a) Inhalation of sulfuric acid vapour can cause respiratory irritation. Use of mask and proper ventilation minimizes the possibility of inhalation of acid fumes. Do not operate the battery in closed space and in case of inhalation of acid fumes, remove the person to fresh air.
b) Splashing of electrolyte into the eyes or skin could cause irritation and severe burns. Affected area should be washed thoroughly with cold water.

Medical attention required in cases of eye exposure or severe skin exposure.
c) Lead, arsenic, antimony and cadmium also have toxic effects, but, emission of these materials from batteries is minimal.

7. FIRE AND EXPLOSION DATA

a) Plastic containers are flammable if exposed to extreme heat or open flame. Use carbon dioxide or dry chemicals only as fire extinguishers.
b) Gases generated at the end of charge could form explosive mixtures with air. Sources of sparks, flames etc. should be avoided. Smoking is not permitted in the battery room.

8. DISPOSAL AT END OF USE

Contact GNB at Fort Erie or the nearest sales office for procedure to be followed for the disposal of used batteries in accordance with Government regulations.

9. GENERAL REMARKS

Lead acid batteries as such pose no hazards to either health or the

environment. All toxic and corrosive components are contained within the cell jars and their emission is minimal. With proper maintenance and use, the battery will function as a DC power source for many years.

NOTE

DUE TO THE NEW MANUFACTURING TECHNOLOGY, GNB'S SEALED ABSOLYTE (R) MODULES REQUIRE CONSIDERABLE SMALLER QUANTITIES OF ELECTROLYTE. AS A CONSEQUENCE, POSSIBILITY OF SPILLAGE OR HYDROGEN EVOLUTION IS VERY MUCH REDUCED. THEY CAN BE STACKED IN ANY POSITION AND ARE ALSO AVAILABLE IN FLAME RESISTANT CONTAINERS. ALL OTHER PRECAUTIONS RECOMMENDED FOR WET CELLS ARE APPLICABLE TO SEALED ABSOLYTE (R) MODULES AS WELL.

MATERIAL SAFETY DATA SHEET

SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identity: Polaris Lead Concentrate

Manufacturer:
Cominco Mining Partnership
Polaris Operations
Polaris, NU
X0A 0Y0
Emergency Telephone: (250) 364-4214

Supplier:
Teck Cominco Metals Ltd.
1500 - 120 Adelaide Street, W.
Toronto, Ontario
M5H 1T1

MSDS Preparer:
Teck Cominco Metals Ltd.
600 - 200 Burrard Street
Vancouver, British Columbia
V6C 3L7

Date of MSDS Preparation: July 23, 1997

Product Use: Lead concentrate is used in the production of lead metal and lead alloys.

SPECIAL NOTES:
Caution: The toxicological properties of this material have not been fully investigated. The information contained in this MSDS is based on information in the technical and scientific literature about the material's constituent compounds. Use appropriate procedures to prevent direct contact with the skin or eyes and to prevent ingestion or inhalation.

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredient	Approximate Percent by Weight	C.A.S. Number	Exposure Limits*		LD_{50}/LC_{50} Species and Route	
Lead Sulfide	86 to 92	1314-87-0	OSHA PEL ACGIH TLV NIOSH REL	.05 mg/m^3 .05 mg/m^3 <0.1 mg/m^3	Guinea Pig-oral LDLo 10 gm/kg	
Zinc Sulfide	1 to 3	1314-98-3	OSHA PEL** ACGIH TLV** NIOSH REL**	None established None established None established	Human-inh TCLo Rat-oral LD_{50} Rat-inh LC_{50} Rat-skin LD_{50}	124 mg/m^3/50M >2 gm/kg >5040 mg/m^3/4H >2gm/kg
Iron Sulfide	2 to 4	7439-89-6	OSHA PEL*** ACGIH TLV*** NIOSH REL***	None established None established None established	No data	

NOTE: TLVs for individual states may differ from OSHA TLVs. Check with local authorities for the applicable state TLVs.
*OSHA - Occupational Safety and Health Administration; ACGIH - American Conference of Governmental Industrial Hygienists; NIOSH - National Institute for Occupational Safety and Health.
**The OSHA PEL for zinc oxide dust is 15 mg/m^3 total and 5 mg/m^3 respirable. The ACGIH TLV for zinc oxide dust is 10 mg/m^3 and the NIOSH REL for zinc oxide dust is 5 mg/m^3 with a STEL of 15 mg/m^3.
***The OSHA PEL for iron oxide fume is 10 mg/m^3. The ACGIH TLV and the NIOSH REL for iron oxide dust and fume is 5 mg/m^3.

European Economic Community (EEC) Classification: Lead: Lead compounds are classified as Category 1 and Category 3 reproductive toxins and as harmful.

EEC R Phrase(s): Lead Compounds: R61 - may cause harm to unborn child; R62 - possible risk of impaired fertility; R20/22 - harmful by inhalation and if swallowed; R33 - danger of cumulative effects.

Trade Names and Synonyms: Lead Concentrate

SECTION 3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Appearance: Dark grey talc-like substance. Caution! The toxicological properties of this substance have not been fully investigated. Overexposure may cause eye, skin, digestive tract, and respiratory tract irritation. Many lead compounds can produce toxic effects in blood forming organs, kidneys and the central nervous system. May cause adverse reproductive or fetal effects. Lead compounds may cause cancer based on studies on laboratory animals. Use appropriate procedures to prevent direct contact with the skin or eyes and to prevent ingestion or inhalation.

EYE:
Eye contact may cause eye irritation.

SKIN:
Skin contact may cause skin irritation.

INHALATION:
Dust is irritating to the nose, throat, and respiratory tract. May cause effects similar to those described for ingestion. The toxicological properties of this substance have not been fully investigated.

INGESTION:
Causes gastrointestinal irritation with nausea, vomiting and diarrhea. Many lead compounds can produce toxic effects in blood forming organs, kidneys and the central nervous system. The toxicological properties of this substance have not been fully investigated.

SIGNS AND SYMPTOM OF EXPOSURE:
Lead is a cumulative poison. When significant continuous or periodic exposure occurs, increasing amounts build up in the body and eventually symptoms and disability may occur. Some signs and symptoms of exposure to lead compounds include gastrointestinal discomfort, a blue-black line on the gums, neuromuscular dysfunction including muscle weakness and paralysis, and mental changes.

CHRONIC EFFECTS:
Many lead compounds can produce toxic effects in blood forming organs, kidneys and the central nervous system. May cause adverse reproductive or fetal effects. Lead compounds may cause cancer based on studies with laboratory animals. The toxicological properties of this substance have not been fully investigated.

REPRODUCTIVE HAZARDS:
Overexposure to lead compounds may cause adverse reproductive effects. Unborn and nursing children can be exposed to lead through their mother. This may cause premature births, smaller babies, and decreased mental ability in the infant.

CARCINOGENICITY INFORMATION:
Lead compounds may cause cancer based on studies with laboratory animals.

TARGET ORGAN:
Target Organs for lead compounds include: The central and peripheral nervous systems, blood-forming organs, kidneys, and the male reproductive system.

SECTION 4. FIRST AID MEASURES

EYE CONTACT FIRST AID:

Immediately flush eyes with plenty of water for at least 15 minutes occasionally lifting the upper and lower eyelids. Get medical attention if irritation develops or persists.

SKIN CONTACT FIRST AID:
Flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing - wash before reuse. Get medical aid if irritation develops or persists.

INHALATION FIRST AID:
If exposed to excessive levels of dusts or fumes, remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if cough or other symptoms develop.
INGESTION FIRST AID:
If victim is conscious and alert, give 2 - 4 cupfuls of water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

NOTES TO PHYSICIAN:
Treat symptomatically and supportively. Chelators of choice for lead poisoning are BAL, calcium-disodium EDTA and penicillamine.

SECTION 5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES
TCC Flash Point: None
Autoignition Temperature: N/A

FLAMMABLE LIMITS IN AIR
LEL: N/A
UEL: N/A

EXTINGUISHING MEDIA:
In case of fire, use water spray, dry chemical, carbon dioxide, or alcohol-resistant foam.

FIRE AND EXPLOSION HAZARDS:
During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

FIRE FIGHTING INSTRUCTIONS:
As in any fire, wear self-contained breathing apparatus pressure-demand MSHA/NIOSH (approved or equivalent) and full protective gear. Avoid breathing smoke, fumes, and decomposition products.

COMBUSTION PRODUCTS:
Excess heat will generate sulfur oxide, zinc oxide, and lead oxide fumes. Contact with acids will generate flammable and toxic hydrogen sulfide gas.

SECTION 6. ACCIDENTAL RELEASE MEASURES

SAFEGUARDS (PERSONNEL):
Use proper personal protective equipment as specified in Section 8.

INITIAL CONTAINMENT
Contain spilled material

LARGE SPILLS PROCEDURE:
Contain spilled material. Clean up spilled material immediately, observing precautions in the Protective Equipment Section. Place in suitable container for recovery or disposal. Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.

SMALL SPILLS PROCEDURE:
Clean up spilled material immediately, observing precautions in the Protective Equipment Section. Place in suitable container for recovery or disposal. Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.

SECTION 7. HANDLING AND STORAGE

HANDLING
Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin and clothing. Avoid ingestion and inhalation.

HANDLING (PHYSICAL ASPECTS):
Avoid excessive heat. Avoid contact with acids or oxidizers.

STORAGE PRECAUTIONS:
Store in a cool dry area. Avoid extreme temperatures. Keep away from acids and oxidizers.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:
Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

EYE/FACE PROTECTION REQUIREMENTS:
Wear safety glasses with side shields (or goggles) and a face shield, if splashing of the material may occur. Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133.

SKIN PROTECTION REQUIREMENTS:
Wear appropriate protective gloves and clothing to prevent skin exposure.

RESPIRATORY PROTECTION REQUIREMENTS:
Follow the OSHA respirator regulations found in 29 CFR 1910.134. Always use a NIOSH approved respirator when required. Use of a NIOSH approved dust respirator is recommended when using or handling this product.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

FORM .....Solid, fine-grained powder
PARTICLE SIZE.....<40 um, 80% <20um
COLOR.....Dark grey
ODOR.....Weak organic odor from entrained xanthates
ODOR THRESHOLD.....None
BOILING POINT.....Not applicable (1050-2300°C in an inert atmosphere)
SOLUBILITY IN WATER.....Slight or very slight
SPECIFIC GRAVITY.....3.5 (Water = 1) in bulk
MELTING/FREEZING POINT.....Not applicable (will burn first unless in an inert atmosphere)
pH.....7.5 to 8.5
% VOLATILES.....8.1% @ 100°C
IGNITION TEMPERATURE.....Between 500-600°C (generates SO2 and zinc, lead vapors)

SECTION 10. STABILITY AND REACTIVITY

STABILITY:
Stable under normal temperatures and pressures.

INCOMPATIBILITY WITH OTHER MATERIALS:
Reacts violently with iodine pentachloride. Incompatible with iodine monochloride, hydrogen peroxide, strong oxidizers, and strong acids. May release toxic and flammable hydrogen sulfide gas on contact with acids.

DECOMPOSITION:
This material can decompose by high temperatures forming sulfur oxides, zinc oxide, lead and lead oxide, and toxic and flammable hydrogen sulfide gas.

CONDITIONS TO AVOID:
Contact with incompatible materials (see above), excessive heat and contact with acids and oxidizers.

SECTION 11. TOXICOLOGICAL INFORMATION

EYE EFFECTS:
Contact with eyes causes irritation.

SKIN EFFECTS:
Contact with skin may cause skin irritation.

ACUTE ORAL EFFECTS:
Causes gastrointestinal irritation with nausea, vomiting and diarrhea. The toxicological properties of this substance have not been fully investigated.

ACUTE INHALATION EFFECTS:
Dust is irritating to the nose, throat, and respiratory tract. May cause effects similar to those described for ingestion. The toxicological properties of this substance have not been fully investigated.

REPRODUCTIVE AND BIRTH EFFECTS:
Unborn and nursing children can be exposed to lead through their mother. This may cause premature births, smaller babies, and decreased mental ability in the infant. High levels of exposure may cause abortion and damage the male reproductive system.

CHRONIC EFFECTS:
In adults, lead exposure may decrease reaction time, possibly affect the memory, cause weakness in fingers, wrists, and ankles, increase blood pressure in middle-aged men, and cause anemia - a blood disorder.

Unborn and nursing children can be exposed to lead through their mother. This may cause premature births, smaller babies, and decreased mental ability in the infant.

GENETIC TOXICITY:
Lead compounds may have an effect on chromosomes.

SECTION 12. ECOLOGICAL INFORMATION

Lead concentrate is insoluble in water. Certain elements are known to bioaccumulate or bioconcentrate in select environmental media.

Lead: Lead compounds are highly persistent in water. Dissolved lead compounds bioaccumulate in plants and animals, both aquatic and terrestrial. In most surface water and groundwater, lead forms compounds with anions such as hydroxides, carbonates, sulfates, and phosphates and precipitates out of the water column. Lead may occur as sorbed ions or surface coatings on sediment mineral particles or may be carried in colloidal particles in surface water. Most lead is strongly retained in soil, resulting in little mobility. Lead may be immobilized by ion exchange with hydrous oxides or clays or by chelation with humic or fulvic acids in the soil.

Zinc: Zinc in the aquatic environment is adsorbed onto iron and manganese oxides, clay minerals, and organic material in sediments or suspended solids in surface waters. The mobility of zinc in soil is dependent on soil conditions, such as cation exchange capacity, pH, redox potential, and chemical species present in the soil. In general, zinc sorbs strongly to soil particulates and, unless it occurs in a soluble form such as zinc sulfate, is not highly mobile in soil. In aquatic systems, zinc bioaccumulates in both plants and animals. Zinc also bioaccumulates in terrestrial plants, vertebrates, and mammals, with plant uptake from soil dependent on the plant species, soil pH, and soil composition. In general, zinc does not biomagnify through food chains.

The mobility of metals is media dependent. Most metals will bind with organic ligands, reducing their mobility in soil and water. Mobility in air is determined by particle size.

SECTION 13. DISPOSAL CONSIDERATIONS

If material cannot be returned to process or salvage, dispose of only in accordance with applicable regulations.

SECTION 14. TRANSPORT INFORMATION

PROPER SHIPPING NAME	Environmentally Hazardous Substance, Solid, n.o.s. (contains lead sulfide)
TRANSPORT CANADA HAZARD CLASS	9.2
U.S. DOT HAZARD CLASS	9
TRANSPORT CANADA AND U.S. DOT PRODUCT IDENTIFICATION NUMBER	UN3077
MARINE POLLUTANT	No
IMO CLASSIFICATION	MHB (Materials Hazardous Only in Bulk)

SECTION 15. REGULATORY INFORMATION

U.S.
HAZARDOUS UNDER HAZARD COMMUNICATION STANDARD:

Lead Sulfide	Y	

INGREDIENTS LISTED ON TSCA INVENTORY Y

CERCLA SECTION 103 HAZARDOUS SUBSTANCES

Lead Sulfide	Y	RQ: 10 pounds
Zinc Compounds	Y	RQ: None assigned

EPCRA SECTION 302 EXTREMELY HAZARDOUS SUBSTANCE
None of the ingredients qualify
EPCRA SECTION 311/312 HAZARD CATEGORIES
Delayed (Chronic) Health Hazard - Carcinogen

EPCRA SECTION 313 TOXIC RELEASE INVENTORY

Lead Compounds	Percent by Weight: 60 to 70
Zinc Compounds	Percent by Weight: 14 to 21

CALIFORNIA PROPOSITION 65: Lead compounds are chemicals known to the State of California to cause cancer and reproductive toxicity.

CANADIAN:
WHMIS CLASSIFICATION: Controlled Product, Classification D2A
This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

SECTION 16. OTHER INFORMATION

The information in this Material Safety Data Sheet is based on the following references:

American Conference of Governmental Industrial Hygienists, 1991, Documentation of the Threshold Limit Values and Biological Exposure Indices, Sixth Edition (Lead Revision 1995).
American Conference of Governmental Industrial Hygienists, 1996, Guide to Occupational Exposure Values.
American Conference of Governmental Industrial Hygienists, 1996, Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices - 1995-1996.
Clayton and Clayton, 1994, Patty's Industrial Hygiene and Toxicology, Fourth Edition.
European Economic Community, Commission Directives 91/155/EEC and 67/548/EEC.
Lewis, Richard J., Sr., 1991, Hazardous Chemicals Desk Reference, Second Edition.
Industry Canada, SOR/88-66, as amended, Controlled Products Regulations.
Merck & Co., Inc., 1989, The Merck Index, An Encyclopedia of Chemicals, Drugs, and Biologicals, Eleventh Edition.
National Library of Medicine, National Toxicology Information Program, 1996, Hazardous Substance Data Bank.
Principles of Clinical Toxicology, 1994
Sax, N. Irving, 1984, Dangerous Properties of Industrial Materials, Sixth Edition.
U.S. Department of Health and Human Services, Public Health Service, Agency for Toxic Substances and Disease Registry, 1993, Toxicological Profile for Lead.
U.S. Department of Health and Human Services, Public Health Service, Agency for Toxic Substances and Disease Registry, 1995, Update Toxicological Profile for Silica.
U.S. Department of Health and Human Services, Public Health Service, Agency for Toxic Substances and Disease Registry, 1994, Update Toxicological Profile for Zinc.
U.S. Environmental Protection Agency, Online Office of Health and Environmental Assessment, Environmental Criteria and Assessment Office, 1996, Integrated Risk Information System.

U.S. Occupational Safety and Health Administration, 1989, Code of Federal Regulations, Title 29, Part 1910.

Notice to Reader

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