Material Safety Data Sheet/ Figne signaletique

WESTCOAST DRILLING SUPPLIES LTD. 8069 River Way, Delta, British Columbia, Canada V4G 1L3

Ph. (604) 940-6050 Fax (604) 940-6080

EMERGENCY 1-800-665-6645

SECTION I: IDENTIFICATION OF PRODUCT

PRODUCT NAME:

550X POLYMER

CHEMICAL FAMILY:

Copolymer of Acrylamide and Sodium Acrylate

PRODUCT USE:

Drilling Mud Additive

WHMIS CLASSIFICATION:

Not a Controlled Product under WHMIS

WORK PLACE HAZARD:

Not applicable

TRANSPORTATION OF DANGEROUS GOODS (TDGR)

CLASSIFICATION: PACKAGE GROUP:

Not applicable Not applicable

PRODUCT IDENTIFICATION NUMBER (PIN):

Not applicable

SECTION II: HAZARDOUS INGREDIENTS

INGREDIENT

PERCENTAGE

CAS NUMBER

LD50 LC50

No Hazardous Ingredients

SECTION III: TOXICOLOGICAL PROPERTIES

ROUTE OF ENTRY:

[] Skin, [] Eye Contact, [XXX] Inhalation, [] Ingestion

SKIN CONTACT:

Prolonged contact may cause skin irritation or dermatitis in some

individuals.

EYE CONTACT:

May cause irritation.

INHALATION:

May cause sneezing, slight irritation of nose and throat.

INGESTION: EFFECTS OF ACUTE EXPOSURE: Not available

EFFECTS OF CHRONIC EXPOSURE:

Not available

SECTION IV: FIRST AID MEASURES

SKIN CONTACT: Wash exposed area with soap and water. If irritation or abnormalities persist, call a physician.

EYE CONTACT: Immediately flush eyes with water for fifteen (15) minutes and call a physician.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is

difficult, give oxygen. Call a physician.

INGESTION: Do not induce vomiting. If conscious, dilute by giving two glasses of water. Call a physician immediately.

SECTION V: PHYSICAL DATA

APPEARANCE AND ODOR:

White granular solid; faint odor

DENSITY (SPECIFIC GRAVITY):

0.80

BOILING POINT:

Decomposes Not applicable

MELTING POINT: WATER SOLUBILITY:

Soluble

% VOLATILE BY VOLUME:

Not applicable

EVAPORATION RATE:

Not applicable Very low

VAPOR PRESSURE (mm Hg): VAPOR DENSITY (Air = 1):

Not applicable

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550X POLYMER

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SECTION VI: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:

Not applicable Not applicable

FLAMMABLE LIMIT:

EXTINGUISHING MEDIA:

Dry chemical, foam, CO2

SPECIAL FIRE FIGHTING PROCEDURES: UNUSUAL FIRE AND EXPLOSION HAZARDS:

Use self-contained respirators for fire fighting personnel. Oxides of carbon and nitrogen and products of incomplete

combustion.

SECTION VII: REACTIVITY DATA

STABLE [XXX] INSTABLE []

INCOMPATIBILITY (CONDITIONS TO AVOID):

Strong oxidizing agents and caustic solutions.

HAZARDOUS DECOMPOSITION PRODUCTS:

Not applicable

HAZARDOUS POLYMERIZATION:

Will not occur [XXX] May occur []

SECTION VIII: PREVENTATIVE MEASURES

RESPIRATORY PROTECTION:

Suggest NIOSH/MESA approved dust mask.

VENTILATION:

Ten (10) changes per hour suggested.

PROTECTIVE GLOVES:

Suggest plastic or rubber.

EYE PROTECTION:

Suggest goggles.

OTHER PROTECTIVE EQUIPMENT:

Suggest rubber apron.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Avoid prolonged or frequent contact when handling material. Do not inhale dust or breathe vapor. Keep container closed when not in use. Store in a cool and dry location away from oxidizing and reducing agents.

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:

Ventilate area. Wear rubber boots, gloves and a self contained breathing apparatus if ventilation is not adequate. Collect into a waste container. Avoid raising dust. Wash spill site after material pick-up. Water solutions are very slippery. May constitute a hazard following a spill.

WASTE DISPOSAL METHOD:

Dispose of waste according to federal, provincial and local regulations.

SECTION IX: PREPARATION

The information contained herein is given in good faith, but no warranty, expressed or implied is made.

DATE ISSUED: January 1, 1991

BY: Product Safety Committees



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550X POLYMER

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AMENDMENT HAZARDOUS INGREDIENTS (550X)

Material or component

Hazard data

COPOLYACRYLAMIDE/SODIUM ACRYLATE

Not considered hazardous

ENVIRONMENTAL

DEGRADABILITY/AQUATIC TOXICITY:

Not determined

OCTANOL/WATER PARTITION COEFFICIENT:

Not determined

WASTE DISPOSAL METHODS:

Incineration and/or disposal in Chemical Landfill. Disposer must . comply with federal, provincial and local disposal or discharge laws.

RCRA STATUS OF UNUSED MATERIAL

IF DISCARDED:

Not a "Hazardous Waste".

HAZARDOUS WASTE NUMBER:

Not available

REPORTABLE QUANTITY:

EPA 40 CFR (CERCLA 102):

Not applicable

THRESHOLD PLANNING QUANTITY:

EPA 40 CRF 355 (SERA 301-304):

Not applicable

TOXIC CHEMICAL RELEASE REPORTING:

EPA 40 CFR 372 (SERA 311-313):

Not applicable

EPA HAZARD CLASSIFICATION CODE:

ACUTE - YES

CHRONIC - NO

FIRE - NO

PRESSURE - NO

REACTIVE - NO

HMIS AND NFPA RATINGS:

NFPA

HEALTH

1

HMIS

FLAMMABILITY REACTIVITY

0

1 0

SPECIAL

Not applicable

Not applicable

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SECTION I: IDENTIFICATION OF PRODUCT

PRODUCT NAME:

KOPR KOTE

CHEMICAL FAMILY:

Oil, Copper, Graphite and Lead

WHMIS CLASSIFICATION:

Not available

WORK PLACE HAZARD:

Not available

TRANSPORTATION OF DANGEROUS GOODS (TDGR)

CLASSIFICATION:

Not available

PACKAGE GROUP:

Not available

PRODUCT IDENTIFICATION NUMBER (PIN):

Not available

SECTION II: HAZARDOUS INGREDIENTS

INGREDIENT

PERCENTAGE

CAS NUMBER

OSHA PEL

ACGIH TLLV

Petroleum Oil

70M

64742-57-0 or 64742-62-7 Oil Mist

Not applicable

Lead Powder

15M

7439-92-1

TWA - 5 mg/M³ Air - 200 ug/M³

Air - 0.15 mg/M3

SECTION III: TOXICOLOGICAL PROPERTIES

ROUTE OF ENTRY: (Information not available)
[] Skin, [] Eye Contact, [] Inhalation, [] Ingestion

SKIN CONTACT:

Not available.

EYE CONTACT:

Not available. Not available.

INHALATION: INGESTION:

Not available.

SYMPTOMS OF EXPOSURE:

Redness and irritation of skin.

EFFECTS OF OVEREXPOSURE:

Repeated skin contact for persons hypersensitive to petroleum

products can cause redness and irritation of skin.

MEDICAL CONDITIONS POTENTIALLY

AGGRAVATED BY EXPOSURE:

Unknown

MATERIAL LISTED AS CARCINOGEN

OR POTENTIAL CARCINOGEN:

National Toxicology Program - No, IARC - No, OSHA - No

SECTION IV: FIRST AID MEASURES

SKIN CONTACT:

Remove by wiping, or waterless hand cleaner, followed by washing.

EYE CONTACT:

Wash with copious quantities of water.

INHALATION:

Clear air passages, call a physician.

DO NOT induce vomiting; call a physician.

INGESTION: OTHER INSTRUCTIONS:

Not applicable

....

SECTION V: PHYSICAL DATA

APPEARANCE AND ODOR:

Copper colored paste; petroleum odor.

DENSITY (SPECIFIC GRAVITY):

1.23 441° C

BOILING POINT:

Not applicable

WATER SOLUBILITY:

MELTING POINT:

None



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KOPR KOTE

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% VOLATILE BY VOLUME: None
EVAPORATION RATE: < 0.01
VAPOR PRESSURE: (mm Hg) < 0.01
VAPOR DENSITY: (Air = 1) > 5.0

pH: Not available
VISCOSITY: Not available

SECTION VI: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 294° C (COC Method)
FLAMMABLE LIMIT: LEL = 0.9% UEL = 7%

AUTO-IGNITION TEMPERATURE: > 315° C

EXTINGUISHING MEDIA: Use foam, dry chemical, water spray(fog), carbon dioxide CO2, or

vaporizing liquid type extinguishing agents.

SPECIAL FIRE FIGHTING PROCEDURES: Use supplied-air breathing equipment for enclosed or confined

spaces.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

SECTION VII: REACTIVITY DATA

STABLE [XXX] INSTABLE []

INCOMPATIBILITY (CONDITIONS TO AVOID): Strong oxidizing materials and copper reactive agents. Incompatible

with 1-bromo-2propyne, NH4NO3, CLF3, H2O2, NaN3, Na2C2, Zr.

HAZARDOUS DECOMPOSITION PRODUCTS: Hydrogen, carbon monoxide, aldehydes, smoke, toxic fumes and

toxic copper and lead compounds.

HAZARDOUS POLYMERIZATION: Will not occur [XXX] May occur []

SECTION VIII: PREVENTATIVE MEASURES

RESPIRATORY PROTECTION: None required.

VENTILATION: No special ventilation required.

PROTECTIVE GLOVES: None required. EYE PROTECTION: None required.

OTHER PROTECTIVE EQUIPMENT: Persons with hypersensitive skin should use gloves.

PERMISSIBLE CONCENTRATIONS: Not available

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Normal precautions as with any petroleum product. Wash hands before eating.

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:

Scoop up excess, wipe with rags, pick up residue with diatomaceous earth to avoid walking hazard.

WASTE DISPOSAL METHOD:

Consult federal, provincial/state and local regulations for petroleum products.

SECTION IX: PREPARATION

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DATE ISSUED: May 25, 1991

BY: Product Safety Committee

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SECTION I: IDENTIFICATION OF PRODUCT

PRODUCT NAME:

LINSEED SOAP

CHEMICAL FAMILY: WHMIS CLASSIFICATION: WORK PLACE HAZARD:

Lubricating grease Not regulated Not applicable

TRANSPORTATION OF DANGEROUS GOODS (TDGR)

CLASSIFICATION:

Not available

PACKAGE GROUP:

Not available

PRODUCT IDENTIFICATION NUMBER (PIN):

Not applicable (Petroleum Lubricating Grease)

SECTION II: HAZARDOUS INGREDIENTS

INGREDIENT

PERCENTAGE

CAS NUMBER

LD50

LC50

Linseed Soap

100%

Mixture

SECTION III: TOXICOLOGICAL PROPERTIES

ROUTE OF ENTRY: (Information not available)

[] Skin, [] Eye Contact, [XXX] Inhalation, [] Ingestion

SKIN CONTACT:

Prolonged and repeated contact with skin can cause defatting and

drying of the skin resulting in skin irritation and dermatitis.

EYE CONTACT:

Not available.

INHALATION:

Inhalation of oil mist or vapors from hot grease may cause irritation

of the upper respiratory tract. Long term intensive exposure may

cause benign lung fibrosis.

INGESTION:

Not available. Not determined.

CHRONIC OVEREXPOSURE: IRRITATION INDEX: SKIN:

Not available.

SYMPTOMS OF EXPOSURE:

Not available.

EXPOSURE INFORMATION:

Oil mist (particulate): 5 mg/M3 (TLV/TWA)

ACGIH 88/89 10 mg/M3 (TLV/STEL) ACGIH 88/89

SECTION IV: FIRST AID MEASURES

SKIN CONTACT:

Remove contaminated clothing. Wash contaminated skin with mild

soap and water. Wipe excess from skin.

EYE CONTACT:

Flush eyes with water for at least fifteen (15) minutes.

INHALATION:

Remove victim from further exposure. Additional first aid treatment

is not ordinarily required.

INGESTION:

Do not induce vomiting. Obtain medical attention immediately.

OTHER INSTRUCTIONS:

None

SECTION V: PHYSICAL DATA

APPEARANCE AND ODOR:

Semi-solid brown colored grease; slight hydrocarbon odor.

DENSITY (SPECIFIC GRAVITY):

1.0 100° C

BOILING POINT: MELTING POINT:

Not available

WATER SOLUBILITY:

Miscible



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LINSEED SOAP

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% VOLATILE BY VOLUME: Not available EVAPORATION RATE: Not available VAPOR PRESSURE: (mm Hg) Not available VAPOR DENSITY: (Air = 1)Not available 9.5

VISCOSITY: Not available

SECTION VI: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 222° C FLAMMABLE LIMIT: Not available AUTO IGNITION TEMP: 343° C

EXTINGUISHING MEDIA: Dry chemical, carbon dioxide CO2, foam water fog.

SPECIAL FIRE FIGHTING PROCEDURES: No special procedures - Avoid inhalation of smoke. Caution, spilled

material is slippery. Use water to cool fire-exposed containers.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None currently known.

SECTION VII: REACTIVITY DATA

STABLE [XXX] INSTABLE []

INCOMPATIBILITY (CONDITIONS TO AVOID): Not available.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide; carbon dioxide and dense smoke are produced on

combustion. Avoid excessive heat, formation of vapors or mists.

HAZARDOUS POLYMERIZATION: Will not occur [] May occur [] Not Available

SECTION VIII: PREVENTATIVE MEASURES

RESPIRATORY PROTECTION: Under conditions of high heat use an air purifying respirator

(mechanical filter with accompanying organic vapor cartridge).

VENTILATION: Highly recommended for all indoor situations to control fugitive

emissions. Concentrations in air should be maintained below the recommended threshold limit value if unprotected personnel are

involved.

LOCAL: If oil mist is present or if exposure is exceeded.

MAKE-UP AIR: Should always be supplied to balance air exhausted

(either generally or locally).

Impervious gloves (viton, nitrile, PVC neoprene) should be worn at PROTECTIVE GLOVES:

all times when handling this product.

Chemical safety goggles and/or full face shield to protect eyes and EYE PROTECTION:

> face, if product is handled such that it could be splashed into eyes. Impervious clothing (apron, coveralls) should be worn in confined

OTHER PROTECTIVE EQUIPMENT:

workspaces or where the risk of skin exposure is much higher.

PERMISSIBLE CONCENTRATIONS: Not available.

LINSEED SOAP

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PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Store in a cool, dry, well ventilated area, away from heat and ignition sources. Avoid excessive heat, formation of oil mist, breathing of vapors and mist of hot oil and prolonged or repeated contact with skin. Launder contaminated clothing prior to reuse. Properly dispose of contaminated leather articles, including shoes, that cannot be decontaminated.

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:

Spilled material is slippery. Isolate hazard area and restrict access. Wear appropriate breathing apparatus (if applicable) and protective clothing. Stop leak only if safe to do so. Contain a land spill by diking. For large spills remove by mechanical means and place in containers. Clean area with appropriate cleaner. Do not allow product to run off from fire control to enter storm or sanitary sewers, lakes, rivers, streams or public waterways. Block off drains and ditches. Provincial regulations require and federal regulations may require that environmental and/or other agencies be notified of a spill incident. Spill area must be cleaned and restored to original condition or to the satisfaction of authorities.

WASTE DISPOSAL METHOD:

Reclaim or dispose of at a licensed waste disposal company.

SECTION IX: PREPARATION

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DATE ISSUED: May 28, 1991

BY: Product Safety Committee

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SECTION I: IDENTIFICATION OF PRODUCT

PRODUCT NAME:

PRODUCT USE:

LUBTUB

CHEMICAL FAMILY:

Sodium polyacrylate Drilling fluid additive

WHMIS CLASSIFICATION:

D2B

WORK PLACE HAZARD:

Skin and eye irritant

TRANSPORTATION OF DANGEROUS GOODS (TDGR)

CLASSIFICATION:

Not dangerous goods

PACKAGE GROUP: PRODUCT IDENTIFICATION NUMBER (Pin): Not applicable. Not applicable

SECTION II: HAZARDOUS INGREDIENTS

INGREDIENTS

PERCENT(%) CAS#

LD₅₀ (oral rat)

LD₅₀ (dermal rabbit)

LC50 (inhalation rat)

Sodium salt of

polyacrylic

15-40

9003-04-7

not determined

not determined

not determined

SECTION III: HEALTH HAZARDS

ROUTE OF ENTRY

[XXX] Skin

[XXX] Eye Contact

[XXX] Inhalation

[XXX] Ingestion

THRESHOLD LIMIT VALVE

E Not determined

SKIN CONTACT

Prolonged contact may cause skin irritation or dermatitis in some individuals.

EYE CONTACT

May cause watering of eyes and inflammation of conjunctiva

INGESTION

May cause nausea and vomiting.

INHALATION

If misted, may cause sneezing, slight irritation of nose and throat.

SECTION IV: TOXICOLIGICAL INFORMATION

CARCINOGENICITY

not determined

REPRODUCTIVE TOXICITY

not determined

TERATOGENICITY MUTAGENICITY not determined

DEVELOPMENTAL TOXICITY

not determined

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pH

SECTION V: FIRST AID MEASURES

SKIN CONTACT: Wash exposed area with soap and water.

If irritation or abnormalities persist, seek medical attention.

EYE CONTACT: Immediately flush eyes with water for 15 minutes and seek medical attention,.

Contact lenses should not be worn when working with this material.

INGESTION: If victim is conscious and alert induce vomiting by giving two glasses of water

and sticking finger down throat.

Never give anything by mouth to an unconscious person.

Seek medical attention.

INHALATION: Remove to fresh air, if not breathing, give artificial respiration.

If breathing is difficult, give oxygen.

Seek medical attention.

SECTION VI: PHYSICAL DATA

APPEARANCE Clear to hazy light amber liquid

ODOR Sweet odour

SPECIFIC GRAVITY 1.

BOILING POINT (°C)

MELTING POINT (°C)

SOLUBILITY IN WATER

PERCENT VOLATILE BY VOLUME

EVAPORATION RATE

VAPOR PRESURE (mm Hg)

VAPOR DENSITY (Air = 1)

not determined

not determined

not determined

not determined

6-8

SECTION VII: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT >100 °C (TCC)
FLAMMABLE LIMITS not determined

EXTINGUISHING MEDIA CO2, Foam, dry chemical, water spray

SPECIAL FIRE FIGHTING PROCEDURES

Use full protective equipment and self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS Though the product is not flammable, evaporation of sufficient

quantities of material could render the product combustible,

SECTION VIII: REACTIVITY DATA

STABILITY [XXX] Stable [] Unstable

INCOMPATIBILITY (Conditions to avoid)

CONDITIONS OF REACTIVITY

HAZARDOUS DECOMPOSITION PRODUCTS

HAZARDOUS POLYMERIZTION

Strong oxidizers
None known

COx and smoke on combustion

[XXX] Will not occur

May occur

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SECTION IX: PREVENTIVE MEASURES

SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION Use NIOSH approved cartridge respirator when exposure is likely to be

excessive.

VENTILATION General mechanical
PROTECTIVE GLOVES Chemically resistant
EYE PROTECTION Safety glasses
OTHER PROTECTIVE EQUIPMENT (Specify) None known

STEPS TO BE TAKEN IN CASE THE MATERIAL IS SPILLED OR RELEASED

(Use appropriate safety equipment.) Small spills, soak up with absorbent material.

Large spills, dike to contain spill to prevent water pollution. Recover diked material, return recovered material to plant.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Avoid ingestion.

Practice reasonable caution and personal cleanliness.

Avoid skin and eye contact.

Store in a cool well ventilated area.

WASTE DISPOSAL METHOD

Absorb spilled material with absorbent compound, incinerated/dispose to conform with local disposal regulations.

SECTION X: PREPARATION

THE INFORMATION CONTAINED HEREIN IS GIVEN IN GOOD FAITH, BUT NO WARRANTY, EXPRESSED OR IMPLIED IS MADE.

DATE ISSUED: November 10, 1990

SUPERSEDES: April 1997

BY: Product Safety Committee

DATE REVISED: April 1, 2000 DATE REVISED: January 2002

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SECTION I: IDENTIFICATION OF PRODUCT

PRODUCT NAME: PRODUCT USE:

PELADOW®
Oil Well Fluid Additive
Calcium Chloride (>90%)

CHEMICAL FAMILY:

WORK PLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)

WHMIS CLASSIFICATION:

Class D-2(B)

WORK PLACE HAZARD:

Skin and Eye Irritant

TRANSPORTATION OF DANGEROUS GOODS (TDGR)

SHIPPING NAME:

Not Regulated Under TDG

TDG CLASSIFICATION:

Not applicable Not applicable

PACKAGE GROUP:

Not applicable

PRODUCT IDENTIFICATION NUMBER (PIN):

SECTION II: HAZARDOUS INGREDIENTS

INGREDIENT	PERCENTAGE	CAS NUMBER	LD50 (oral rat)	
Calcium Chloride	91 - 92%	10043-52-4	900-2100 mg / kg (100%)	
Sodium Chloride	1 - 2%	7647-14-5	Not available	
Potassium Chloride	2-3%	7447-40-7	Not available	
Strontium Chloride	1%	10476-85-4	Not available	

SECTION III: TOXICOLOGICAL PROPERTIES

ROUTE OF ENTRY:

[XX] Skin, [XX] Eye Contact, [XX] Inhalation, [XX] Ingestion

Dusts may cause moderate to severe eye irritation, with corneal injury that may be slow to heal. When dissolving, the heat produced

may cause more intense effects as well as thermal burns.

SKIN CONTACT:

EYE CONTACT:

Short single exposure not likely to cause significant skin irritation. Prolonged or repeated exposure may cause skin irritation, even a burn. May cause more severe response if skin is damp and/or abraded, or if material is confined to skin. When dissolving, the heat produced may cause more intense effects as well as thermal burns.

DOT classification: Noncorrosive.

SKIN ABSORPTION: A single prolonged exposure is not likely to result in the material

being absorbed through the skin i harmful amounts. The LD50 for

skin absorption in rabbits is >5000 mg / kg.

INGESTION: Single dose oral toxicity is low. Swallowing solids may cause

gastro-intestinal irritation or ulceration.

INHALATION: Vapours are unlikely due to physical properties. Dust may cause

irritation of upper respiratory tract.

SECTION IV: FIRST AID MEASURES

SKIN CONTACT: Immediately wash skin with lots of soap and water. Remove contaminated clothing and shoes; wash before reuses. Get medical attention if irritation persists after washing.

EYE CONTACT: Get immediate medical attention. Immediately flush eyes with lots of running water for 15 minutes, lifting the upper and lower eyelids occasionally.



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INGESTION: If conscious, immediately induce vomiting. Get immediate medical attention. Do not give anything by mouth to an unconscious or convulsing person.

INHALATION: remove to fresh air. Give artificial respiration if not breathing. Get immediate medical attention.

NOTE TO PHYSICIAN: If burn is present, treat as any thermal burn, after decontamination, No specific antidote. Supportive care. Treatment based on judgement of the physician in response to reactions of patient.

SECTION V: PHYSICAL DATA

APPEARANCE AND ODOR: White to off-white powder; odorless.

DENSITY (SPECIFIC GRAVITY): 2.2 g/cc BOILING POINT: 198° C

MELTING POINT:

WATER SOLUBILITY:

Soluble pH 7-10

Not applicable

EVAPOR PRESSURE: (mm Hg)

VAPOR DENSITY: (Air = 1)

Approximately 230° C

Soluble pH 7-10

Not applicable

0.009 mm Hg 20° C

Not applicable

SECTION VI: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: Not applicable FLAMMABLE LIMIT: Not applicable

EXTINGUISHING MEDIA: This material is not combustible

SPECIAL FIRE FIGHTING PROCEDURES: Self-contained respirators required for fire-fighting personnel

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

SECTION VII: REACTIVITY DATA

STABLE [XXX] INSTABLE []

INCOMPATIBILITY (CONDITIONS TO AVOID): (Specific Materials to Avoid) Calcium Chloride will: corrode most

metals exposed to air, attack aluminium (and its alloys) and yellow brass; react with sulphuric acid to form hydrogen chloride which is corrosive, irritating, and reactive; give an exothermic reaction with water-reactive materials such as sodium; result in a runaway polym erization reaction with methyl vinyl ether (Bretherick, 1979); and, in solution form react with zinc (galvanizing) to yield hydrogen gas which is explosive (Ibid.). (Bretherick, L. 1979, Handbook of

Reactive Chemical Hazards, 2nd Ed.)

HAZARDOUS DECOMPOSITION PRODUCTS:

Not Applicable

HAZARDOUS POLYMERIZATION:

Will not occur [XX] May occur []

SECTION VIII: PREVENTATIVE MEASURES

RESPIRATORY PROTECTION: Approved dust respirator mask VENTILATION: Local mechanical exhaust

PROTECTIVE GLOVES: Rubber gloves. EYE PROTECTION: Chemical goggles.

OTHER PROTECTIVE EQUIPMENT: An eyewash and safety shower should be nearby and ready for use.

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PELADOW®

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PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Avoid eye and prolonged skin contact, Always use cool water (temperature less than 27° C), when dissolving calcium chloride. Heat developed by solutions is very high during dissolving and mixing. When exposed to atmosphere, calcium chloride will pick up water and form a solution. Leather clothing and shoes will be damaged by calcium chloride.

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:

Losses incidental to correct applications of this product in its intended uses are not expected to be harmful to the environment. Wear appropriate safety apparel during clean-up. Avoid entry of large amount of product into sewers, natural waters, and drinking water sources. Due to possible harmful effects. Avoid contact with vegetation, animals and fish life. Recover quickly into suitable, dry sealable containers if reusing. Small quantities may be flushed away with plenty of water. Walking surfaces may remain wet longer due to moisture being held by spilled product - avoid by thoroughly water washing surfaces.

WASTE DISPOSAL METHOD:

Dispose of contaminated product and materials used in cleaning up spills or leaks in a manner approved for this material. Consult appropriate regulatory agencies to ascertain proper disposal procedures

SECTION IX: PREPARATION

The information contained herein is given in good faith, but no warranty, expressed or implied is made.

DATE ISSUED: December 15, 1994

BY: Product Safety Committee

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WESTCOAST DRILLING SUPPLIES LTD. 8069 River Way, Delta, British Columbia, Canada V4G 1L3 Ph. (604) 940-6050 Fax (604) 940-6080

EMERGENCY 1-800-665-6645

SECTION I: IDENTIFICATION OF PRODUCT

PRODUCT NAME:

WDS-120L

PRODUCT USE:

Drilling Mud Additives

CHEMICAL FAMILY:

Copolymer of acrylamide with sodium acrylate

WHMIS CLASSIFICATION:

B3, D2B

WORK PLACE HAZARD:

Combustible liquid, skin and eye irritant

TRANSPORTATION OF DANGEROUS GOODS

SHIPPING NAME:

not regulated

CLASSIFICATION: PACKAGE GROUP: not applicable, not applicable

PRODUCT IDENTIFICATION NUMBER (Pin):

not applicable

SECTION II: HAZARDOUS INGREDIENTS

INGREDIENT	PERCENT %	CAS NUMBER	LD ₅₀ (oral rat)	LD ₅₀ (dermal rabbit))	LC ₅₀ (inhalator rat)
Mineral Spirits Alkyl Phenol Ethoxylate	30-60 3-7	64742-47-8 68412-54-4	>5 g/kg 3000 mg/kg	>3 g/kg 2830 mg/kg	not determined not determined

SECTION III: TOXICOLIGICAL INFORMATION

CARINOGENICITY not determined REPRODUCTIVE TOXICITY not determined TERATOGENICITY not determined MUTAGENICITY not determined

DEVELOPMENTAL TOXICITY not determined

SECTION IV: HEALTH HAZARDS

ROUTE OF ENTRY: [XXX] Skin [XXX] Eye Contact [XXX] Inhalation [XXX] Ingestion

THRESHOLD LIMIT VALUE

: not determined

SKIN CONTACT

: Contact may cause irritation, redness, swelling or dermatitis

EYE CONTACT

: Will casue painful burning or stinging of eyes and lids, watering of eyes and

inflammation of conjunctiva.

INGESTION

: May cause nausea and vomiting.

INHALATON

: Inhalation not likely.

Material Safety Data / Fiche signalétique

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SECTION V: FIRST AID MEASURES

SKIN CONTACT : Wash exposed area with soap and water.

If irritation or abnormalities persist, call a physician.

EYE CONTACT : Immediately flush eyes with water for 15 minutes and call a physician.

: Do not induce vomiting. INGESTION

If conscious, dilute by giving two glasses of water.

Call a physician immediately.

INHALATION : Remove to fresh air.

If conscious, dilute by giving two glasses of water.

Call a physician immediately.

SECTION VI: PHYSICAL DATA

APPEARANCE Off white liquid ODOUR Mineral oil smell

SPECIFIC GRAVITY 1.07

BOILING POINT (0C) not determined MELTING POINT (0C) not determined Soluble

SOLUBILITY IN WATER

PERCENT VOLATILE BY VOLUME not determined **EVAPORATION RATE** not determined not determined VAPOR PRESSURE (mm Hg) VAPOR DENSITY (Air = 1) not determined pH 6 - 9 (0.6% in water)

SECTION VII: FIRE AND EXPLOSION HAZARD DATA

65°C (TCC) FLASH POINT FLAMMABLE LIMITS not determined

EXTINGUISHING MEDIA Water spray, foam, dry chemical, carbon dioxide

SPECIAL FIRE FIGHTING PROCEDURES Self-contained respirators required for fire fighting personnel.

UNUSUAL FIRE AND EXPLOSION HAZARDS Water will cause extreme slipperiness.

Sensitivity to static charge.