

Appendix D

25A HELICOPTER DRILL RIG WEIGHTS

<u>Item</u>	<u>Unit Weight</u>	<u>No. of Units</u>	<u>Extension</u>
1) BBS25A fly drill rig	7,000 lb.	1	7,000 lb.
2) NQ drill rods 10ft.	51 lb.	150	7,650 lb.
3) NW casing 10 ft.	70 lb.	2	140 lb.
4) NW casing 5 ft	35	2	70 lb.
5) NW casing 2 ft	14	2	28 lb.
6) HW casing 10 ft	114	10	1,140 lb.
7) HW casing 2 ft	23	4	92 lb.
8) Water supply pumps	500 lb	3	1,500 lb
9) water line	0.6 lb/ft	7,000 ft.	4,200 lb.
10) hand tools	300 lb.	1 set	300 lb.
11) drill spares	500 lb.	1 set	500 lb.
12) set-up timbers	1,000 lb.	2 set	2,000 lb.
13) core boxes	6 lb.	25	150 lb
14) rod grease	50 lb.	6	300 lb.
15) Lubes/Oils	50 lb.	4	200 lb.
16) Linseed soap	50 lb.	1	50 lb.
17) Misc. Fluids for drilling	50 lb.	30	<u>1,500 lb.</u>

fly rig
5,000 lb

sub total.....26,4200 lb.

10% contingency.....2,640 lb.

Total..... 29,000 lb.

1) Water consumption - using NQ tools, we would use 7-8 gallons/minute while drilling.



Serving the Drilling Industry

WESTCOAST DRILLING SUPPLIES LTD.#6 - 2351 SIMPSON ROAD
RICHMOND, B.C. V6X 2R2TEL: (604) 278-4954
FAX: (604) 278-4914

EMERGENCY PHONE NO.: (604) 278-4954

MATERIAL SAFETY DATA SHEET**SECTION I: IDENTIFICATION OF PRODUCT**

PRODUCT NAME: 350 X 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: Not Applicable

PACKAGE GROUP: Not Applicable

PRODUCT IDENTIFICATION NUMBER (PIN): Not Applicable

SECTION II: HAZARDOUS INGREDIENTS

<u>INGREDIENT</u>	<u>PERCENTAGE</u>	<u>CAS NUMBER</u>	<u>LD50</u>	<u>LC50</u>
No Hazardous Ingredients				

SECTION III: TOXICOLOGICAL PROPERTIES**ROUTE OF ENTRY:**☐ skin, ☐ eye contact, ☒ 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:** Not available**EFFECTS OF ACUTE EXPOSURE:** Not available

WESTCOAST Drilling Supplies Ltd.

550 X POLYMER

p. 2/3

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 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 ODOUR:	White granular solid; faint odour
DENSITY (SPECIFIC GRAVITY):	0.80
BOILING POINT:	Decomposes
MELTING POINT:	Not Applicable
WATER SOLUBILITY:	Soluble
% VOLATILE BY VOLUME:	Not Applicable
EVAPORATION RATE:	Not Applicable
VAPOUR PRESSURE: (MM Hg)	Very Low
VAPOUR DENSITY: (Air = 1)	Not Applicable

SECTION VI: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: Not Applicable

FLAMMABLE LIMIT: Not Applicable

EXTINGUISHING MEDIA: Dry chemical, foam, CO₂

SPECIAL FIRE FIGHTING PROCEDURES: Use self-contained respirators for fire fighting personnel.

UNUSUAL FIRE AND EXPLOSION HAZARDS: 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 []

WESTCOAST Drilling Supplies Ltd.

550 X POLYMER

p. 3/3

i:~

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 vapour. 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

Date Revised:

By: Product Safety Committee

AMENDMENT

HAZARDOUS INGREDIENTS (550 X)

MATERIAL OR COMPONENT	WT%	HAZARD DATA
COPOLYACRYLAMIDE/SODIUM ACRYLATE		NOT CONSIDERED HAZARDOUS

ENVIRONMENTAL

DEGRADABILITY/AQUATIC TOXICITY: N. D.

OCTANOL/WATER PARTITION COEFFICIENT: N. D.

WASTE DISPOSAL METHODS: INCINERATION AND/OR DISPOSAL IN CHEMICAL LANDFILL. DISPOSER MUST COMPLY WITH FEDERAL STATE AND LOCAL DISPOSAL OR DISCHARGE LAWS.

RCRA STATUS OF UNUSED MATERIAL IF DISCARDED: NOT A "HAZARDOUS WASTE"

HAZARDOUS WASTE NUMBER: N. A.

REPORTABLE QUANTITY: EPA 40 CFR (CERCLA 102): N. A.

THRESHOLD PLANNING QUANTITY: EPA 40 CFR 355 (SERA 301-304): N. A.

TOXIC CHEMICAL RELEASE REPORTING: EPA 40 CFR 372 (SERA 311-313): N. A.

EPA HAZARD CLASSIFICATION CODE:	ACUTE - YES	CHRONIC - NO
	FIRE - NO	PRESSURE - NO
		REACTIVE - NO

HMIS AND NFPA RATINGS:	HMIS	NFPA
HEALTH	1	1
FLAMMABILITY	0	0
REACTIVITY	1	1
SPECIAL	N.A.	N.A.

**WESTCOAST DRILLING SUPPLIES LTD.**#6 - 2351 SIMPSON ROAD
RICHMOND, B.C. V6X 2R2TEL: (604) 278-4954
FAX: (604) 278-4914

EMERGENCY PHONE NO. (604) 278-4954

Serving the Drilling Industry

MATERIAL SAFETY DATA SHEET

SECTION I: IDENTIFICATION OF PRODUCT**PRODUCT NAME:** LINSEED SOAP**CHEMICAL FAMILY:** Lubricating grease**WHMIS CLASSIFICATION:** Not Regulated**WORK PLACE HAZARD:** Not Applicable**TRANSPORTATION OF DANGEROUS GOODS (TDGR)****CLASSIFICATION:** Not Available**PACKAGE GROUP:** Not Applicable**PRODUCT IDENTIFICATION NUMBER (PIN):** Not Applicable (Petroleum Lubricating Grease)

SECTION II: HAZARDOUS INGREDIENTS

<u>INGREDIENT</u>	<u>PERCENTAGE</u>	<u>CAS NUMBER</u>	<u>LD50</u>	<u>LC50</u>
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 dermatitis and drying of the skin resulting in skin irritation and dermatitis.**EYE CONTACT:** Not available**INHALATION:** Inhalation of oil mist or vapours from hot grease may cause irritation of the upper respiratory tract. Long term intensive exposure may cause benign lung fibrosis.**INGESTION:** Not Available.**CHRONIC OVEREXPOSURE:** Not Determined.

WESTCOAST DRILLING SUPPLIES LTD.

LINSEED SOAP

p.2/4

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 ODOUR:	Semi-solid brown coloured grease; slight hydrocarbon odour
DENSITY (SPECIFIC GRAVITY):	1.0
BOILING POINT:	100 Degree c
MELTING POINT:	Not Available
WATER SOLUBILITY:	Miscible
% VOLATILE BY VOLUME:	Not Available
EVAPORATION RATE:	Not Available
VAPOUR PRESSURE: (MM Hg)	Not Available
VAPOUR DENSITY: (Air = 1)	Not Available
Ph:	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.