# **SECTION X - SPECIAL INFORMATION**

These products contain the following substances that are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

Chemical Name	CAS Number	Max. Ibs/1000 units
Lead	7439-92-1	39.4
	(Use Toxic Chemical Category Code)	
Lead Compounds	N420	2.0
Barium Compounds	N040	1.8
Chromium Compounds	N090	1.9

Range\* of Section 313 Chemicals in each product

Product	lb Pb per 1000	Ib Pb compounds	lb Ba compounds	lb Cr compounds
	detonators	per 1000	per 1000	per 1000
		detonators	detonators	detonators
NONEL® MS	0 - 27	0.3 – 1.5	0 – 0.9	0 – 0.9
NONEL® LP	0 - 30	0.3 - 2.0	0 - 1.8	0 - 1.9
NONEL® SL	7 - 27	0.3 – 1.5	0	0
NONEL® TD	0 - 18	0.3 - 0.7	0	0
NONEL® MS Connector	5 - 16	0.3 - 0.4	0	0
NONEL® TWINPLEX™	5 - 15	0.3 - 0.7	0	0
NONEL® STARTER	0	0.3	0	0
NONEL® EZ DET®	22 - 36	2.0	0	´ O
NONEL® EZTL™	5 - 15	0.5 - 0.7	0	0
NONEL® EZ DRIFTER	39.4	1.3	1.2	1.3
NONEL® OPTISLIDE®	0	0	0	0
NONEL® OPTISURFACE®	0	0	0	0
NONEL® OPTI-TL®	0	0	0	0

<sup>\*</sup> The exact quantity and weight percent of Section 313 Chemicals in each delay period and tubing length for each product is available upon request.

#### **Disclaimer**

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MSDS# 1122 Date: 05/13/05 Page 5 of 5

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MSDS # 1063 Date 01/24/05

Supercedes MSDS # 1063 01/23/04

# **SECTION I - PRODUCT IDENTIFICATION**

Trade Name(s): BLASTEX®

MSDS# 1063 Date: 01/24/05

Page 1 of 3

BLASTEX® PLUS, BLASTEX® PLUS HD BLASTEX® TX, BLASTEX® TX PLUS SUPER BLASTEX®, SUPER BLASTEX ®TX

**DYNOTEX** 

DYNO® 1.5 SB, DYNO® 1.5 SBC, DYNO® 1.5 SB30

DX-2011, DX-2012

Product Class: Packaged Emulsion Explosives

Product Appearance & Odor: White or pink opaque semi-solid, which will appear gray if product contains aluminum.

Little or no odor. Packaged in cylindrical cartridges of paper or plastic film.

**DOT Hazard Shipping Description:** Explosive, blasting, type E 1.5D UN0332 II

NFPA Hazard Classification: Not Applicable (See Section IV - Special Fire Fighting Procedures)

# **SECTION II - HAZARDOUS INGREDIENTS**

Ingredients:	CAS#	% (Range)	<b>ACGIH TLV-TWA</b>
Ammonium Nitrate	6484-52-2	60-85	No Value Established
Sodium Nitrate <sup>1</sup>	7631-99-4	0-12	No Value Established
Aluminum	7429-90-5	0-10	10 mg/m³
Mineral Oil	64742-35-4	0-6	5 mg/m <sup>3</sup>
Kerosene	8008-20-6	0-6	No Value Established

<sup>&</sup>lt;sup>1</sup> Our source of Sodium Nitrate (Chilean) may contain perchlorate ion, which occurs naturally. Although Dyno Nobel does not analyze for the presence of perchlorate anion, based on published studies, the products listed above may contain between 0 and 250 ppm perchlorate.

Ingredients, other than those mentioned above, as used in this product are not hazardous as defined under current Department of Labor regulations, or are present in deminimus concentrations (less than 0.1% for carcinogens, less than 1.0% for other hazardous materials).

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# **SECTION III - PHYSICAL DATA**

**Boiling Point:** Not Applicable

Vapor Density: (Air = 1) Not Applicable
Percent Volatile by Volume: <20 (water)

Evaporation Rate (Butyl Acetate = 1): <1

Vapor Pressure: Not Applicable

**Density:** 1.15-1.35 g/cc

Solubility in Water: Product partially dissolves

very slowly in water.

### **SECTION IV - FIRE AND EXPLOSION HAZARD DATA**

Flash Point: >100°C Flammable Limits: Not Applicable

**Extinguishing Media:** (See Special Fire Fighting Procedures section.)

Special Fire Fighting Procedures: Do not attempt to fight fires involving explosive materials. Evacuate all personnel to

a predetermined safe location, no less than 2,500 feet in all directions.

Unusual Fire and Explosion Hazards: Can explode or detonate under fire conditions. Burning material may produce

toxic vapors.

### **SECTION V - HEALTH HAZARD DATA**

# **Effects of Overexposure**

**Eyes:** May cause irritation, redness and tearing. **Skin:** Prolonged contact may cause irritation.

Ingestion: Large amounts may be harmful if swallowed.

Inhalation: Not a likely route of exposure.

**Systemic or Other Effects:** *Perchlorate*: Perchlorate can potentially inhibit iodide uptake by the thyroid and result in a decrease in thyroid hormone. The National Academy of Sciences (NAS) has reviewed the toxicity of perchlorate and has concluded that even the most sensitive populations could ingest up to 0.7 microgram perchlorate per kilogram of body weight per day without adversely affecting health. The USEPA must establish a maximum contaminant level (MCL) for perchlorate in drinking water by 2007, and this study by NAS may result in a recommendation of about 20 ppb for the MCL.

# **Emergency and First Aid Procedures**

Eyes: Irrigate with running water for at least 15 minutes. If irritation persists seek medical attention.

**Skin:** Remove contaminated clothing. Wash with soap and water.

**Ingestion:** Seek medical attention.

**Inhalation:** If irritation occurs, remove to fresh air.

Special Considerations: None.

#### **SECTION VI - REACTIVITY DATA**

Stability: Stable under normal conditions, may explode when subjected to fire, supersonic shock or high-energy

projectile impact, especially when confined or in large quantities.

Conditions to Avoid: Keep away from heat, flame, ignition sources and strong shock.

Materials to Avoid (Incompatibility): Corrosives (strong acids and strong bases or alkalis).

Hazardous Decomposition Products: Nitrogen Oxides (NO<sub>X</sub>), Carbon Monoxide (CO)

Hazardous Polymerization: Will not occur

MSDS# 1063 Date: 01/24/05 Page 2 of 3

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## **SECTION VII - SPILL OR LEAK PROCEDURES**

Steps to be taken in Case Material is Released or Spilled: Protect from all ignition sources. In case of fire evacuate area not less than 2,500 feet in all directions. Notify authorities in accordance with emergency response procedures. Only personnel trained in emergency response should respond. If no fire danger is present, and product is undamaged and/or uncontaminated, repackage product in original packaging or other clean DOT approved container. Ensure that a complete account of product has been made and is verified. Follow applicable Federal, State, and local spill reporting requirements.

**Waste Disposal Method:** Disposal must comply with Federal, State and local regulations. If product becomes a waste, it is potentially regulated as a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR, part 261. Review disposal requirements with a person knowledgeable with applicable environmental law (RCRA) before disposing of any explosive material.

#### **SECTION VIII - SPECIAL PROTECTION INFORMATION**

**Ventilation:** Not required for normal handling. **Respiratory Protection:** None normally required.

Protective Clothing: Gloves and work clothing that reduce skin contact are suggested.

Eve Protection: Safety glasses are recommended.

Other Precautions Required: None.

#### **SECTION IX - SPECIAL PRECAUTIONS**

**Precautions to be taken in handling and storage:** Store in cool, dry, well-ventilated location. Store in compliance with Federal, State and local regulations. Keep away from heat, flame, ignition sources and strong shock.

**Precautions to be taken during use:** Avoid breathing the fumes or gases from detonation of explosives. Use accepted safe industry practices when using explosive materials. Unintended detonation of explosives or explosive devices can cause serious injury or death.

**Other Precautions:** It is recommended that users of explosive materials be familiar with the Institute of Makers of Explosives Safety Library Publications.

# **SECTION X - SPECIAL INFORMATION**

The reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372 may become applicable if the physical state of this product is changed to an aqueous solution. If an aqueous solution of this product is manufactured, processed, or otherwise used, the nitrate compounds category and ammonia listing of the previously referenced regulation should be reviewed.

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MSDS# 1063 Date: 01/24/05 Page 3 of 3

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Supercedes

MSDS # 1019 09/09/04

# **SECTION I - PRODUCT IDENTIFICATION**

Trade Name(s): D-GEL™ 1000

DYNOSPLIT®: D1, D3/4, D 7/8

EXTRA GELATIN: 40%, 75%

GELAPRIME® F UNIGEL® UNIMAX®

VIBROGEL®: 1,3

Z POWDER™ DYNOMAX PRO™ Oil Well Explosive 80% Oil Well Explosive 100%

STONECUTTER™

REDH<sup>®</sup>A RED H<sup>®</sup> B POWERGEL D

60% Hi-Pressure Gelatin

IRESPLIT® D IP: 724, 738

Product Class: Packaged Dynamites and Blasting Gelatins

Product Appearance & Odor: Powdery to gelatinous solid, light tan to dark brown color. Faint, waxy odor.

**DOT Hazard Shipping Description:** Explosive, blasting, type A 1.1D UN0081 II

NFPA Hazard Classification: Not Available (See Section IV - Special Fire Fighting Procedures)

### **SECTION II - HAZARDOUS INGREDIENTS**

Ingredients:	CAS#	<u>% (Range)</u>	<b>ACGIH TLV-TWA</b>
Nitroglycerin (NG)	55-63-0	1-20	0.05 ppm
Ethylene Glycol Dinitrate (EGDN)	628-96-6	8-76	0.05 ppm
Nitrocellulose	9004-70-0	0-6	No Value Established
Ammonium Nitrate	6484-52-2	0-75	No Value Established
Sodium Nitrate <sup>1</sup>	7631-99-4	0-50	No Value Established
Sulfur <sup>2</sup>	7704-34-9	0-4	No Value Established

<sup>&</sup>lt;sup>1</sup> Our source of Sodium Nitrate (Chilean) may contain perchlorate ion, which occurs naturally. Although Dyno Nobel does not analyze for the presence of perchlorate anion, based on published studies, the products listed above may contain between 0 and 1,000 ppm perchlorate.

Ingredients, other than those mentioned above, as used in this product are not hazardous as defined under current Department of Labor regulations, or are present in deminimus concentrations (less than 0.1% for carcinogens, less than 1.0% for other hazardous materials).

#### **SECTION III - PHYSICAL DATA**

Boiling Point: Not ApplicableVapor Pressure: Not ApplicableVapor Density: Not ApplicableDensity: 0.8-1.48 g/cc

MSDS# 1019 Date: 01/31/05 Page 1 of 3

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<sup>&</sup>lt;sup>2</sup> This ingredient is not found in most of the products listed above.

Percent Volatile by Volume: Not Applicable

Evaporation Rate (Butyl Acetate = 1): Not Applicable

**Solubility in Water:** Ammonium and sodium nitrates are completely soluble. NG and EGDN are very slightly soluble.

# **SECTION IV - FIRE AND EXPLOSION HAZARD DATA**

Flash Point: Not Applicable Flammable Limits: Not Applicable

Extinguishing Media: (See Special Fire Fighting Procedures section.)

Special Fire Fighting Procedures: Do not attempt to fight fires involving explosive materials. Evacuate all personnel to

a predetermined safe location, no less than 2,500 feet in all directions.

Unusual Fire and Explosion Hazards: Can explode or detonate under fire conditions. Burning material may produce

toxic vapors.

# **SECTION V - HEALTH HAZARD DATA**

## **Effects of Overexposure**

**Eyes:** May cause irritation, redness and tearing.

**Skin:** Contact may result in headache, nausea and blood vessel dilation.

**Ingestion:** May result in headache, nausea, intestinal upset and blood vessel dilation.

**Inhalation:** May result in headache, nausea and blood vessel dilation.

**Systemic or Other Effects:** Perchlorate: Perchlorate can potentially inhibit iodide uptake by the thyroid and result in a decrease in thyroid hormone. The National Academy of Sciences (NAS) has reviewed the toxicity of perchlorate and has concluded that even the most sensitive populations could ingest up to 0.7 microgram perchlorate per kilogram of body weight per day without adversely affecting health. The USEPA must establish a maximum contaminant level (MCL) for perchlorate in drinking water by 2007, and this study by NAS may result in a recommendation of about 20 ppb for the MCL.

#### **Emergency and First Aid Procedures**

Eyes: Irrigate with running water for at least fifteen minutes. If irritation persists, seek medical attention.

Skin: Remove contaminated clothing. Wash with soap and water.

Ingestion: Seek medical attention.

**Inhalation:** Remove to fresh air. If irritation persists, seek medical attention.

Special Considerations: None.

# **SECTION VI - REACTIVITY DATA**

Stability: Stable under normal conditions. May explode when subjected to fire, supersonic shock, or high-energy

projectile impact, especially when confined or in large quantities. **Conditions to Avoid:** Keep away from heat, flame, ignition sources and strong shock.

Materials to Avoid (Incompatibility): Corrosives (mineral acids, bases, strong acids).

Hazardous Decomposition Products: Carbon Monoxide (CO), Hydrogen Sulfide (H<sub>2</sub>S), Nitrous Oxides (NO<sub>X</sub>), and Sulfur

Oxides (SO<sub>x</sub>).

Hazardous Polymerization: Will not occur.

# **SECTION VII - SPILL OR LEAK PROCEDURES**

Steps to be taken in Case Material is Released or Spilled: Protect from all ignition sources. In case of fire evacuate area not less than 2,500 feet in all directions. Notify authorities in accordance with emergency response procedures. Only personnel trained in emergency response should respond. If no fire danger is present, and product is undamaged

MSDS# 1019 Date: 01/31/05 Page 2 of 3

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and/or uncontaminated, repackage product in original packaging or other clean DOT approved container. Ensure that a complete account of product has been made and is verified. Follow applicable Federal, State, and local spill reporting requirements. Contact of this product with water may result in a reportable release.

**Waste Disposal Method:** Disposal must comply with Federal, State and local regulations. If product becomes a waste, it is potentially regulated as a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR, part 261. Review disposal requirements with a person knowledgeable with applicable environmental law (RCRA) before disposing of any explosive material.

#### **SECTION VIII - SPECIAL PROTECTION INFORMATION**

**Ventilation:** Forced ventilation may be necessary where natural ventilation is limited. Magazines containing NG and/or EGDN based explosives must be ventilated before entry.

Respiratory Protection: None normally required.

Protective Clothing: Chemical resistant (nitrile) gloves are suggested.

Eye Protection: Safety glasses are recommended.

**Other Precautions Required:** Inhalation and skin contact should be minimized to avoid headaches, nausea, and blood vessel dilation. Protective clothing should be changed daily, more often if contaminated.

#### **SECTION IX - SPECIAL PRECAUTIONS**

**Precautions to be taken in handling and storage:** Store in cool, dry, well-ventilated location. Store in compliance with Federal, State, and local regulations. Keep away from heat, flame, ignition sources, and strong shock.

**Precautions to be taken during use:** Avoid breathing the fumes or gases from detonation of explosives. Use accepted safe industry practices when using explosive materials. Unintended detonation of explosives or explosive devices can cause serious injury or death.

Other Precautions: It is recommended that users of explosive materials be familiar with the Institute of Makers of Explosives Safety Library Publications.

# **SECTION X - SPECIAL INFORMATION**

Chemical Name<br/>NitroglycerinCAS Number<br/>55-63-0% By Weight<br/>1-20

The reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372 may become applicable if the physical state of this product is changed to an aqueous solution. If an aqueous solution of this product is manufactured, processed, or otherwise used, the nitrate compounds category and ammonia listing of the previously referenced regulation should be reviewed.

#### **Disclaimer**

MSDS# 1019 Date: 01/31/05 Page 3 of 3

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# MATERIAL SAFETY DATA SHEET

# SECTION I: IDENTIFICATION OF PRODUCT

COMPANY: Diversity Technologies Corp. DATE: Apr. 27, 2004

**8750** – **53<sup>rd</sup> Ave.** PHONE: 780-468-4064

**Edmonton, AB T6E 5G2** FAX: 780-469-1899

PRODUCT NAME: **POTASSIUM CHLORIDE (POTASH)** 

PRODUCT USE: Oil well fluid additive

CHEMICAL FAMILY: Inorganic salt CAS#: 7447-40-7

# WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)

WHMIS CLASSIFICATION: Not WHMIS controlled. WORKPLACE HAZARD: Treat as nuisance dust.

# TRANSPORTATION OF DANGEROUS GOODS (TDG)

PROPER SHIPPING NAME: Not regulated under TDG

TDG CLASSIFICATION: Not applicable UN NUMBER (PIN): Not applicable PACKING GROUP: Not applicable

# SECTION II: HAZARDOUS INGREDIENTS

<u>INGREDIENT</u> <u>PERCENT</u> <u>CAS NUMBER</u> <u>LD<sub>50</sub>Oral-Rat</u> <u>LC<sub>50</sub>Inhal-Rat</u> <u>ACGIH-TLV</u>

Contains no WHMIS controlled ingredients.

# SECTION III: HEALTH HAZARDS

ROUTE OF ENTRY: [ ]EYE CONTACT [ ]SKIN [ ]INHALATION [ ]INGESTION

EYE CONTACT: May cause mechanical irritation.

SKIN CONTACT: Prolonged or repeated contact may cause dry skin. INGESTION: Negligible risk.  $LD_{50}$  (oral-rat) = 2340 mg/kg.

INHALATION: High dust levels may cause upper respiratory tract irritation.

CARCINOGENICITY: No information available. TERATOGENICITY: No information available. REPRODUCTIVE No information available.

TOXICITY:

MUTAGENICITY: No information available.

SYNERGISTIC PRODUCTS:

No information available.

SECTION IV: FIRST AID MEASURES

SKIN CONTACT: Flush with water. Dry area thoroughly and apply skin cream or

moisturizing cream. If irritation persists, obtain medical attention.

EYE CONTACT: Flush with gently flowing warm water for 15 minutes while holding

eyelids open. If irritation persists, obtain medical attention.

INGESTION: Do not induce vomiting. If conscious, rinse out mouth and give 1 to 2

glasses of water to drink. If vomiting occurs keep head below hips to prevent aspiration of vomitus and readminister water. Obtain medical

attention. Never give anything by mouth to an unconscious or

convulsing victim.

INHALATION: Move to fresh air. Apply oxygen or artificial respiration if required.

If breathing difficulties, or distress, continue obtain medical attention.

**SECTION V: PHYSICAL DATA** 

APPEARANCE AND ODOUR: White crystals; odourless

SPECIFIC GRAVITY: 2.0

BOILING POINT (°C): 1500 (sublimes)

MELTING POINT (°C): 773

SOLUBILITY IN WATER: 342 g/L @ 20°C pH: 8-9 (5% sol'n)

PERCENT VOLATILE BY VOLUME: 0

EVAPORATION RATE: Not applicable

VAPOUR PRESSURE (mmHg): ~0 VAPOUR DENSITY (air = 1): 2.57

BULK DENSITY: Not available

SECTION VI: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: Not flammable FLAMMABLE LIMITS: Not applicable

EXTINGUISHING MEDIA: Use media suitable for surrounding materials and

packaging.

SPECIAL FIRE FIGHTING Self-contained breathing apparatus required for fire

PROCEDURES: fighting personnel.

UNUSUAL FIRE AND None known.

**EXPLOSION HAZARDS:** 

# SECTION VII: REACTIVITY DATA

STABILITY: STABLE [XX] UNSTABLE [] INCOMPATIBILITY Incompatible with lithium and bromine trifluorides,

(CONDITIONS TO AVOID): strong acids and strong oxidizers.

CONDITIONS OF REACTIVITY: Contact with incompatible materials.

HAZARDOUS DECOMPOSITION Hydrogen chloride and fumes of Na<sub>2</sub>O.

PRODUCTS:

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR [XX] MAY OCCUR []

# SECTION VIII: PREVENTATIVE MEASURES

# SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: Use NIOSH approved dust mask if TLV is exceeded.

8 hour OEL Nuisance Dust Total Mass =  $10 \text{mg/m}^3$ .

VENTILATION: Suggest local exhaust ventilation, if TLV's are

exceeded.

PROTECTIVE GLOVES: Suggest plastic or rubber.

EYE PROTECTION: Safety glasses.

OTHER PROTECTIVE EQUIPMENT

Ensure eyewash station and emergency shower are

(Specify): available.

# PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Store in a cool, dry well-ventilated place away from incompatibles. Keep bags or fibre drums dry at all times. Wash thoroughly after handling. Do not get in eyes, on skin, or on clothing.

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

Collect by sweeping and scoop up or shovel. Collect uncontaminated material for repackaging. Collect contaminated material in an approved container for disposal. Keep out of sewers, storm drains, surface waters and soils.

# WASTE DISPOSAL METHOD

Dispose in accordance with federal, provincial and local regulations. This product may be suitable for disposal in landfills; check with local operator. It is the responsibility of the end-user to determine if material meets the criteria of hazardous waste at the time of disposal. Dispose of all packaging in accordance with local regulations.

# **SECTION IX: PREPARATION**

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

DATE ISSUED: April 27, 2004 BY: Product safety committee

SUPERSEDES: June 6, 2002 PHONE: 780-440-4923

Diversity Technologies Corp. is the parent company of Canamara-United Supply, Hollimex Products, The Drilling Depot and Westcoast Drilling Supplies.

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Supercedes MSDS # 1124 10/20/04

## **SECTION I - PRODUCT IDENTIFICATION**

Trade Name(s): NONEL® LEAD LINE

Product Class: Shock Tube

Product Appearance & Odor: Hollow plastic tubing (normally yellow) with dusty inner coating of HMX and aluminum. No

detectable odor.

Articles, explosive, n.o.s. (HMX) 1.4S UN0349 II. DOT Hazard Shipping Description:

For 10,000 ft spools with Wire Lock Terminations only, Not regulated as an explosive, 0000

NFPA Hazard Classification: Not Applicable (See Section IV - Special Fire Fighting Procedures)

#### **SECTION II - HAZARDOUS INGREDIENTS**

Ingredients:	CAS#	% (Range)	Occupational Exp OSHA PEL-TWA	ACGIH TLV-TWA
Cyclotetramethylene Tetranitramine (HMX)	2691-41-0	0.35	None <sup>1</sup>	None <sup>2</sup>
Aluminum (dust)	7429-90-5	0.04	15 mg/m³ (total) 5 mg/m³ (respirable)	10 mg/m <sup>3</sup>

<sup>&</sup>lt;sup>1</sup> Use limit for particulates not otherwise regulated (PNOR): Total dust, 15 mg/m<sup>3</sup>; respirable fraction, 5 mg/m<sup>3</sup>.

Ingredients, other than those mentioned above, as used in this product are not hazardous as defined under current Department of Labor regulations, or are present in deminimus concentrations (less than 0.1% for carcinogens, less than 1.0% for other hazardous materials).

#### **SECTION III - PHYSICAL DATA**

Vapor Pressure: Not Applicable **Boiling Point:** Not Applicable Vapor Density: Not Applicable

Melting Point: HMX decomposes violently at melting pt., about 278°C

Evaporation Rate (Butyl Acetate = 1): Not Applicable

**Density:** Not Applicable

Solubility in Water: Not Soluble

Percent Volatile by Volume: Not Applicable

MSDS# 1124 Date: 01/24/05 Page 1 of 3

Groundbreaking Performance

<sup>&</sup>lt;sup>2</sup> Use limit for particulates not otherwise classified (PNOC): Inhalable particulate, 10 mg/m<sup>3</sup>; respirable part., 3 mg/m<sup>3</sup>. Note: The above hazardous dust mixture is present at approximately 15 mg per meter of tubing.

### **SECTION IV - FIRE AND EXPLOSION HAZARD DATA**

Flash Point: Not Applicable Flammable Limits: Not Applicable

Extinguishing Media: Water, inert powder, CO<sub>2</sub>

**Special Fire Fighting Procedures:** For shock tube only, consider initial isolation of at least 15 meters (50 feet) in all directions. Fight fire with normal precautions and methods used for plastic fires from a reasonable distance. IF DETONATORS OR OTHER EXPLOSIVES ARE PRESENT, DO NOT FIGHT FIRE.

**Unusual Fire and Explosion Hazards:** May burn vigorously with localized detonations and projection of fragments, with effects usually confined to the immediate vicinity of packages. Toxic smoke from combustion of the plastic material may be emitted. If product functions, high heat and pressure are released from the end of the tube if not covered or enclosed, typically by a metal device.

## **SECTION V - HEALTH HAZARD DATA**

# Effects of Overexposure

This is a packaged product that will not result in exposure to hazardous ingredients (inner coating materials) under normal conditions of use.

Eyes: Not a likely route of exposure. Dust particles may be irritating.

**Skin:** Not a likely route of exposure. Dust particles may cause skin irritation.

**Ingestion:** Not a likely route of exposure. Ingestion of large amounts of the reactive powder (HMX) is poisonous and may cause cardiovascular collapse.

**Inhalation:** Not a likely route of exposure. Breathing dust can cause respiratory irritation. During manufacture and at processing temperatures, irritating fumes may evolve.

Systemic or Other Effects: None known.

Carcinogenicity: No constituents are listed by NTP, IARC or OSHA.

#### **Emergency and First Aid Procedures**

Eyes: Irrigate with running water for at least fifteen minutes. If irritation persists, seek medical attention.

**Skin:** Wash with soap and water.

Ingestion: Not Applicable Inhalation: Not Applicable Special Considerations: None.

#### **SECTION VI - REACTIVITY DATA**

Stability: Stable

Conditions to Avoid: Keep away from heat, flame, impact, friction, ignition sources and strong shocks. Also avoid stretching to failure.

Materials to Avoid (Incompatibility): Incompatible with strong oxidizers and acids.

Hazardous Decomposition or Combustion Products: Hazardous carbon monoxide (CO), nitrogen oxide (NO<sub>X</sub>) gases and products of plastic decomposition produced.

Hazardous Polymerization: Will not occur.

#### **SECTION VII - SPILL OR LEAK PROCEDURES**

Steps to be taken in Case Material is Released or Spilled: Protect from all ignition sources. In case of fire evacuate area not less than 50 feet in all directions. Notify authorities in accordance with emergency response procedures. Only personnel trained in emergency response should respond. If no fire danger is present, repackage undamaged devices in original packaging, accounting for every device. If the ends or tube wall have been opened such that powder may have

MSDS# 1124 Date: 01/24/05 Page 2 of 3

DYNO
Dyno Nobel
Groundbreaking Performance

been released from the tube, isolate the spill area. Contamination of the HMX/Aluminum powder with sand, grit or dirt will render the material more sensitive to detonation. Carefully wet down and clean "loose" powder spills using a damp sponge or rag, avoid applying friction or pressure to the explosive, and place in a (Velostat) electrically conductive bag. Follow applicable Federal, State, and local spill reporting requirements.

**Waste Disposal Method:** Disposal must comply with Federal, State and local regulations. If product becomes a waste, it is potentially regulated as a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR, part 261. Review disposal requirements with a person knowledgeable with applicable environmental law (RCRA) before disposing of any explosive material.

# **SECTION VIII - SPECIAL PROTECTION INFORMATION**

**Ventilation:** None normally required. Provide enhanced ventilation if used in underground mines, indoors or other enclosed areas.

**Respiratory Protection:** None normally required. Extended testing of the product indoors or in enclosed areas may necessitate respiratory protection.

**Protective Clothing:** None normally required. Wear chemical-resistant gloves during post-detonation cleanup or spill cleanup operations.

Eve Protection: Safety glasses or goggles are recommended for handling, testing or cleanup.

Other Precautions Required: None

#### **SECTION IX - SPECIAL PRECAUTIONS**

**Precautions to be taken in handling and storage:** Store in cool, dry, well-ventilated location. Store in compliance with Federal, State, and local regulations. Keep away from heat, flame, ignition sources and strong shock. Only properly qualified and authorized personnel should handle and use Shock Tube.

**Precautions to be taken during use:** Use accepted safe industry practices when using explosive materials. Unintended detonation of explosives or explosive devices can cause serious injury or death. Avoid breathing the fumes or gases from detonation of explosives. Detonation in confined or unventilated areas may result in exposure to hazardous fumes or oxygen deficiency.

**Other Precautions:** It is recommended that users of explosive materials be familiar with the Institute of Makers of Explosives Safety Library Publications.

#### **SECTION X - SPECIAL INFORMATION**

This product contains the following substances that are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

Chemical Name None **CAS Number** 

% By Weight

# Disclaimer

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MSDS# 1124 Date: 01/24/05 Page 3 of 3

DYNO

Dyno Nobel

Groundbreaking Performance

MATERIAL SAFETY DATA SHEET Revision Date: 06/04/2003

PRODUCT AND COMPANY IDENTIFICATION SECTION 1

PRODUCT: Tellus® Oil T 32 MSDS NUMBER: 60532E - 9 PRODUCT CODE(S): 65401

MANUFACTURER ADDRESS:SOPUS Products, P.O. Box 4453, Houston, TX. 77210-4453

TELEPHONE NUMBERS

Spill Information: (877) 242-7400 Health Information: (877) 504-9351 MSDS Assistance Number: (877) 276-7285

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SECTION 2 PRODUCT/INGREDIENTS

CAS# CONCENTRATION INGREDIENTS

Hydraulic Oil

Mixture 85 - 94.99 %weight Highly refined petroleum oils Proprietary 3 - 8.99 %weight Proprietary additives (contains <1%

zinc)

\_\_\_\_\_

SECTION 3 HAZARDS IDENTIFICATION

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EMERGENCY OVERVIEW

Appearance & Odor: Pale liquid. Mild odor.

Health Hazards: No known immediate health hazards. High-pressure injection

under the skin may cause serious damage.

Physical Hazards: No known physical hazards.

NFPA Rating (Health, Fire, Reactivity): 0, 1, 0

Hazard Rating:Least - 0 Slight - 1 Moderate - 2 High - 3

Extreme - 4

Inhalation:

Inhalation of vapors (generated at high temperatures only) or oil mist may

cause mild irritation of the nose, throat, and respiratory tract.

### Eye Irritation:

Lubricating oils are generally considered no more than minimally irritating to the eyes.

#### Skin Contact:

May cause slight irritation of the skin. If irritation occurs, a temporary burning sensation and minor redness and/or swelling may result. Release of the material during high-pressure applications may result in injection under the skin causing possible extensive tissue damage which is difficult to heal.

Other adverse effects not expected from brief skin contact.

# Ingestion:

Lubricating oils are generally no more than slightly toxic if swallowed. Other Health Effects:

Material may release hydrogen sulfide (H2S), a highly toxic and extremely flammable gas, when heated to 180 Degrees F or higher. H2S can cause irritation of the eyes and respiratory tract, headache, dizziness, nausea, vomitting, diarrhea, and pulmonary edema. The odor ("rotten egg") threshold is 0.02 ppm. Do not depend on sense of smell for warning; H2S rapidly deadens the sense of smell.

#### Signs and Symptoms:

Irritation as noted above. Local necrosis is evidenced by delayed onset of pain and tissue damage a few hours following injection.

## Aggravated Medical Conditions:

Pre-existing eye, skin and respiratory disorders may be aggravated by exposure  $\frac{1}{2}$ 

to this product.

For additional health information, refer to section 11.

---SECTION 4 FIRST AID MEASURES

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# Inhalation:

If the victim has difficulty breathing or tightness of the chest, is dizzy, vomiting or unresponsive, give 100% oxygen with rescue breathing or CPR as required and transport to the nearest medical facility.

#### Skin:

Remove contaminated clothing and shoes and wipe excess from skin. Flush skin

with water, then wash  $% \left( 1\right) =\left( 1\right) +\left( 1$ 

attention. Do not reuse clothing until cleaned. If material is injected under the skin, transport to the nearest medical facility for additional

treatment. If redness, swelling, pain and/or blisters occur, transport to the nearest medical facility for additional treatment.

#### Eye:

Flush with water. If irritation occurs, get medical attention.

#### Ingestion:

Do not induce vomiting. In general, no treatment is necessary unless large quantities of product are ingested. However, get medical attention. Have victim rinse mouth out with water, then drink sips of water to remove taste from mouth. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

Note to Physician:

In general, emesis induction is unnecessary in high viscosity, low volatility products such as oils and greases.

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SECTION 5 FIRE FIGHTING MEASURES

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Flash Point [Method]: >350 °F/>176.67 °C [ Cleveland Open Cup]

Extinguishing Media:

Material will float and can be re-ignited on surface of water. Use water fog,

'alcohol foam', dry chemical or carbon dioxide (CO2) to extinguish flames. Do

not use a direct stream of water.

Fire Fighting Instructions:

Material will not burn unless preheated. Do not enter confined fire space without full bunker gear (helmet with face shield, bunker coats, gloves and rubber boots), including a positive pressure, NIOSH approved, self-contained breathing apparatus.

SECTION	6	ACCIDENTAL	RELEASE	MEASURES		

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Protective Measures:

May burn although not readily ignitable.

Wear appropriate personal protective equipment when cleaning up spills. Refer

to Section 8.

Spill Management:

FOR LARGE SPILLS: Remove with vacuum truck or pump to storage/salvage vessels.

FOR SMALL SPILLS: Soak up residue with an absorbent such as clay, sand or other suitable material. Place in non-leaking container and seal tightly for proper disposal.

Place in container for proper disposal.

Reporting:

CERCLA: Product is covered by EPA's Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) petroleum exclusion. Releases to air,

land, or water are not reportable under CERCLA (Superfund).

 ${\tt CWA:}$  This product is an oil as defined under Section 311 of EPA's Clean Water

Act (CWA). Spills into or leading to surface waters that cause a sheen must be

reported to the National Response Center, 1-800-424-8802.

SECTION 7 HANDLING AND STORAGE

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Precautionary Measures: Wash with soap and water before eating, drinking, smoking, applying cosmetics,

or using toilet. Launder contaminated clothing before reuse. Properly dispose of contaminated leather articles such as shoes or belts that cannot be

decontaminated. Avoid heat, open flames, including pilot lights, and strong oxidizing agents. Use explosion-proof ventilation to prevent vapor accumulation. Ground all handling equipment to prevent sparking.

Material may release hydrogen sulfide (H2S), a highly toxic and extremely flammable gas, when heated to 180 Degrees F or higher. H2S may collect in the

headspace of the container.

Storage:

Store in a cool, dry place with adequate ventilation. Keep away from open flames and high temperatures.

Container Warnings:

Keep containers closed when not in use. Containers, even those that have been

emptied, can contain explosive vapors. Do not cut, drill, grind, weld or

perform similar operations on or near containers.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

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Oil mist, mineral ACGIH TLV TWA: 5 mg/m3 STEL: 10 mg/m3 Oil mist, mineral OSHA PEL TWA: 5 mg/m3 Hydrogen sulfide ACGIH - TLV TWA: 10 ppmm STEL: 15 ppmm Hydrogen sulfide OSHA - PEL\_IS TWA: 10 ppmm STEL: 15 ppmm Hydrogen sulfide Elevated Temperatures > 180 F.

#### EXPOSURE CONTROLS

Adequate ventilation to control airborne concentrations below the exposure quidelines/limits.

#### PERSONAL PROTECTION

Personal protective equipment (PPE) selections vary based on potential exposure conditions such as handling practices, concentration and ventilation.

Information on the selection of eye, skin and respiratory protection for

with this material is provided below.

## Eye Protection:

Chemical Goggles, or Safety glasses with side shields

## Skin Protection:

Use protective clothing which is chemically resistant to this material. Selection of protective clothing depends on potential exposure conditions

may include gloves, boots, suits and other items. The selection(s) should take into account such factors as job task, type of exposure and durability requirements.

Published literature, test data and/or glove and clothing manufacturers indicate the best protection is provided by: Neoprene, or Nitrile Rubber

# Respiratory Protection:

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, an approved respirator must be worn. Respirator selection, use and maintenance should be in accordance

the requirements of the OSHA Respiratory Protection Standard, 29 CFR 1910.134.

Types of respirator(s) to be considered in the selection process include: For Mist: Air Purifying, R or P style NIOSH approved respirator. For Vapors: Air Purifying, R or P style prefilter & organic cartridge, NIOSH approved respirator. Self-contained breathing apparatus for use in

environments with unknown concentrations or emergency situations. SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES .\_\_\_\_\_ Appearance & Odor: Pale liquid. Mild odor. Substance Chemical Family: Lubricants Appearance: Pale liquid. Flash Point: > 350 °F [Cleveland Open Cup] Odor: Mild odor. Pour Point: -20 °F - -40 °F Specific Gravity: 0.86 - 0.87 Viscosity: > 20 cSt @ 40 °C \_\_\_\_\_\_ SECTION 10 REACTIVITY AND STABILITY \_\_\_\_\_ Stability: Material is stable under normal conditions. Conditions to Avoid: Avoid heat and open flames. Materials to Avoid: Avoid contact with strong oxidizing agents. Hazardous Decomposition Products: Thermal decomposition products are highly dependent on combustion conditions. A complex mixture of airborne solids, liquids and gases will evolve when material undergoes pyrolysis or combustion. Aldehydes, Carbon Monoxide, Carbon Dioxide, Hydrogen Sulfide, Ketones and other unidentified organic compounds may be formed upon combustion.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute Toxicity Dermal LD50 >5.0 g/kg(Rabbit) OSHA: Non-Toxic Based on components(s) Oral LD50 >5.0 g/kg(Rat) OSHA: Non-Toxic Based on components(s) Carcinogenicity Classification Hydraulic Oil NTP: No IARC: Not Reviewed ACGIH: No OSHA: No
SECTION 12 ECOLOGICAL INFORMATION
Environmental Impact Summary: There is no ecological data available for this product. However, this product is an oil. It is persistent and does not readily biodegrade. However, it does not bioaccumulate.
SECTION 13 DISPOSAL CONSIDERATIONS
RCRA Information:
Under RCRA, it is the responsibility of the user of the material to determine, at the time of the disposal, whether the material meets RCRA criteria for hazardous waste. This is because material uses, transformations, mixtures, processes, etc. may affect the classification. Refer to the latest EPA, state and local regulations regarding proper disposal.
SECTION 14 TRANSPORT INFORMATION
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US Department of Transportation Classification This material is not subject to DOT regulations under 49 CFR Parts 171-180

Oil: This product is an oil under 49CFR (DOT) Part 130. If shipped by rail or

highway in a tank with a capacity of 3500 gallons or more, it is subject to these requirements. Mixtures or solutions containing 10% or more of this product may also be subject to this rule.

International Air Transport Association

Not regulated under IATA rules.

International Maritime Organization Classification Not regulated under International Maritime Organization rules.

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SECTION 15 REGULATORY INFORMATION

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FEDERAL REGULATORY STATUS

OSHA Classification:

Product is hazardous according to the OSHA Hazard Communication Standard, 29 CFR 1910.1200, because it carries the occupational exposure limit for mineral

oil mist.

Ozone Depleting Substances (40 CFR 82 Clean Air Act): This material does not contain nor was it directly manufactured with any Class

I or Class II ozone depleting substances.

Superfund Amendment & Reauthorization Act (SARA) Title III:

There are no components in this product on the SARA 302 list.

SARA Hazard Categories (311/312):

Immediate Health:NO Delayed Health:NO Fire:NO Pressure:NO
Reactivity:NO

SARA Toxic Release Inventory (TRI) (313):

There are no components in this product on the SARA 313 list.

Toxic Substances Control Act (TSCA) Status:

All component(s) of this material is(are) listed on the EPA/TSCA Inventory of

Chemical Substances.

Other Chemical Inventories:

Component(s) of this material is (are) listed on the Australian AICS, Canadian DSL, European EINECS,

State Regulation

This material is not regulated by California Prop 65, New Jersey Right-to-Know

Chemical List or Pennsylvania Right-To-Know Chemical List. However for details on your regulation requirements you should contact the appropriate agency in your state.

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SECTION 16 OTHER INFORMATION

Revision#: 9

Revision Date: 06/04/2003

Revisions since last change (discussion): This Material Safety Data Sheet (MSDS) has been newly reviewed to fully comply with the guidance contained

the ANSI MSDS standard (ANSI Z400.1-1998). We encourage you to take the opportunity to read the MSDS and review the information contained therein.

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SECTION 17 LABEL INFORMATION

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READ AND UNDERSTAND MATERIAL SAFETY DATA SHEET BEFORE HANDLING OR DISPOSING

PRODUCT. THIS LABEL COMPLIES WITH THE REQUIREMENTS OF THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200) FOR USE IN THE WORKPLACE. THIS

IS NOT INTENDED TO BE USED WITH PACKAGING INTENDED FOR SALE TO CONSUMERS AND MAY NOT CONFORM WITH THE REQUIREMENTS OF THE CONSUMER PRODUCT SAFETY ACT OR OTHER RELATED REGULATORY REQUIREMENTS.

PRODUCT CODE(S): 65401

Tellus® Oil T 32

ATTENTION!

PROLONGED OR REPEATED SKIN CONTACT MAY CAUSE OIL ACNE OR DERMATITIS. HIGH-PRESSURE INJECTION UNDER SKIN MAY CAUSE SERIOUS DAMAGE.

Precautionary Measures:

Avoid prolonged or repeated contact with eyes, skin and clothing. Avoid breathing of vapors, fumes, or mist. Use only with adequate ventilation. Wash thoroughly after handling.

FIRST AID

Inhalation: If the victim has difficulty breathing or tightness of the

is dizzy, vomiting or unresponsive, give 100% oxygen with rescue breathing

CPR as required and transport to the nearest medical facility.

Skin Contact: Remove contaminated clothing and shoes and wipe excess from

skin. Flush skin with water, then wash with soap and water. If irritation occurs, get medical attention. Do not reuse clothing until cleaned. If material is injected under the skin, transport to the nearest medical facility

for additional treatment. If redness, swelling, pain and/or blisters occur, transport to the nearest medical facility for additional treatment. Eye Contact: Flush with water. If irritation occurs, get medical attention

Ingestion: Do not induce vomiting. In general, no treatment is necessary unless large quantities of product are ingested. However, get medical attention. If vomiting occurs spontaneously, keep head below hips to prevent

aspiration. Have victim rinse mouth out with water, then drink sips of water

to remove taste from mouth.

#### FIRE

In case of fire, Use water fog, 'alcohol foam', dry chemical or carbon dioxide (CO2) to extinguish flames. Do not use a direct stream of water. Material will float and can be re-ignited on surface of water.

#### SPILL OR LEAK

Dike and contain spill.

FOR LARGE SPILLS: Remove with vacuum truck or pump to storage/salvage vessels.

FOR SMALL SPILLS: Soak up residue with an absorbent such as clay, sand or other suitable material. Place in non-leaking container and seal tightly for

proper disposal.

CONTAINS: Highly refined petroleum oils, Mixture; Proprietary additives (contains <1% zinc), Proprietary

NFPA Rating (Health, Fire, Reactivity): 0, 1, 0

#### TRANSPORTATION

US Department of Transportation Classification
This material is not subject to DOT regulations under 49 CFR Parts 171-180.

Oil: This product is an oil under 49CFR (DOT) Part 130. If shipped by rail

highway in a tank with a capacity of 3500 gallons or more, it is subject to these requirements. Mixtures or solutions containing 10% or more of this product may also be subject to this rule.

CAUTION: Misuse of empty containers can be hazardous. Empty containers can be hazardous if used to store toxic, flammable, or reactive materials. Cutting or welding of empty containers might cause fire, explosion or toxic fumes from residues. Do not pressurize or expose to open flames or heat. Keep container closed and drum bungs in place.

Name and Address

SOPUS Products
P.O. Box 4453
Houston, TX 77210-4453

ADMINISTRATIVE INFORMATION

MANUFACTURER ADDRESS: SOPUS Products, P.O. Box 4453, Houston, TX. 77210-4453

Company Product Stewardship & Regulatory Compliance Contact: Timothy W Childs

Phone Number: (281) 874-7708

THE INFORMATION CONTAINED IN THIS DATA SHEET IS BASED ON THE DATA AVAILABLE TO

US AT THIS TIME, AND IS BELIEVED TO BE ACCURATE BASED UPON THAT: IT IS PROVIDED INDEPENDENTLY OF ANY SALE OF THE PRODUCT, FOR PURPOSE OF HAZARD COMMUNICATION. IT IS NOT INTENDED TO CONSTITUTE PRODUCT PERFORMANCE INFORMATION, AND NO EXPRESS OR IMPLIED WARRANTY OF ANY KIND IS MADE WITH RESPECT TO THE PRODUCT, UNDERLYING DATA OR THE INFORMATION CONTAINED HEREIN. YOU ARE URGED TO OBTAIN DATA SHEETS FOR ALL PRODUCTS YOU BUY, PROCESS, USE OR

DISTRIBUTE, AND ARE ENCOURAGED TO ADVISE THOSE WHO MAY COME IN CONTACT WITH SUCH PRODUCTS OF THE INFORMATION CONTAINED HEREIN.

TO DETERMINE THE APPLICABILITY OR EFFECT OF ANY LAW OR REGULATION WITH RESPECT

TO THE PRODUCT, YOU SHOULD CONSULT WITH YOUR LEGAL ADVISOR OR THE APPROPRIATE

GOVERNMENT AGENCY. WE WILL NOT PROVIDE ADVICE ON SUCH MATTERS, OR BE RESPONSIBLE FOR ANY INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN. THE UNDERLYING DATA, AND THE INFORMATION PROVIDED HEREIN AS A RESULT OF THAT DATA,

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38420-11460-100R-06/03/2003

# MATERIAL SAFETY DATA SHEET

# SECTION I: IDENTIFICATION OF PRODUCT

COMPANY: Diversity Technologies Corp. DATE: Jan. 18, 2006

**8750 – 53<sup>rd</sup> Ave.** PHONE: 604-940-6050

**Edmonton, AB T6E 5G2** FAX: 604-940-6080

PRODUCT NAME: W-OB POLYMER

PRODUCT USE: Drilling mud additive

CHEMICAL FAMILY: Polysaccharide suspension CAS #: Mixture

# WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)

WHMIS CLASSIFICATION: D2B

WORKPLACE HAZARD: Skin and eye irritant

# TRANSPORTATION OF DANGEROUS GOODS (TDG)

PROPER SHIPPING NAME: Not regulated TDG CLASSIFICATION: Not applicable UN NUMBER (PIN): Not applicable PACKING GROUP: Not applicable

#### SECTION II: HAZARDOUS INGREDIENTS

INGREDIENT% (v/v)CAS NUMBER<br/>9016-45-9LD50Oral-Rat<br/>5100 mg/kgLC50Inhal-Rat<br/>Not determinedACGIH-TLV<br/>Not available

## SECTION III: HEALTH HAZARDS

ROUTE OF ENTRY: [XX] EYE CONTACT [XX] SKIN [XX] INHALATION [XX]

**INGESTION** 

EYE CONTACT: Irritant. Can cause redness, tearing and inflammation. SKIN CONTACT: Irritant. Can cause redness, irritation and inflammation.

INGESTION: Low oral toxicity. May cause nausea, abdominal cramps and diarrhea. INHALATION: High concentrations of vapour and mist can cause irritation of the nose

and throat

CARCINOGENICITY: No information available. TERATOGENICITY: No information available.

W-OB Polymer Page 2 of 4

REPRODUCTIVE

TOXICITY: No information available.

MUTAGENICITY: No information available.

SYNERGISTIC PRODUCTS:

No information available.

# SECTION IV: FIRST AID MEASURES

SKIN CONTACT: Remove contaminated clothing. Flush affected area with water and

soap for 5 minutes. If irritation persists, contact a physician.

EYE CONTACT: Immediately flush with gently flowing warm water for 15, or until

irritation ceases. When flushing period is completed, obtain medical

attention.

INGESTION: Rinse mouth and give 2 - 3 glasses of water to dilute. Do not induce

vomiting. If vomiting occurs keep head below hips to prevent aspiration. Even small amounts of liquid drawn into the lungs from swallowing, or vomiting may cause severe health effects. Obtain medical attention. Never give anything by mouth if patient is

unconscious, rapidly losing consciousness or convulsing.

INHALATION: Move patient to fresh air. Apply oxygen or artificial respiration if

required. If breathing difficulties or distress continues obtain medical

attention.

# SECTION V: PHYSICAL DATA

APPEARANCE AND ODOUR: Opaque yellow to beige liquid; little odour

SPECIFIC GRAVITY: 1.078

BOILING POINT (°C):

MELTING POINT (°C):

Not determined

Not determined

SOLUBILITY IN WATER: Dispersible pH: Not determined

PERCENT VOLATILE BY VOLUME: Not determined EVAPORATION RATE: Not determined VAPOUR PRESSURE (mmHg): Not determined VAPOUR DENSITY (air = 1): Not determined BULK DENSITY: Not applicable

#### SECTION VI: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: Not flammable FLAMMABLE LIMITS: Not determined

EXTINGUISHING MEDIA: CO<sub>2</sub>, water, mist, foam

W-OB Polymer Page 3 of 4

SPECIAL FIRE FIGHTING Self-contained breathing apparatus required for fire

PROCEDURES: fighting personnel. None known. UNUSUAL FIRE AND

**EXPLOSION HAZARDS:** 

# SECTION VII: REACTIVITY DATA

STABILITY: STABLE [XX] UNSTABLE [ ]

**INCOMPATIBILITY** Strong oxidizers and acids.

(CONDITIONS TO AVOID):

CONDITIONS OF REACTIVITY: Not applicable.

HAZARDOUS DECOMPOSITION Oxides of carbon on combustion.

PRODUCTS:

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR [XX] MAY OCCUR [ ]

# SECTION VIII: PREVENTATIVE MEASURES

# SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: An approved respirator with organic vapour cartridge

if TLV is exceeded.

**VENTILATION:** Use local exhaust ventilation, process enclosure or

other engineering control to prevent exposure.

Rubber or viton gloves recommended. PROTECTIVE GLOVES:

Chemical goggles and/or face shield required. Do EYE PROTECTION:

not wear contact lenses.

OTHER PROTECTIVE EQUIPMENT

(Specify):

It is recommended that chemical resistant protective clothing be worn at all times when handling this

product. Make eye bath and emergency shower

available.

#### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Avoid ingestion. Practice reasonable caution and personal cleanliness. Avoid skin and eye contact. Avoid inhalation of vapours or mists. Wear suitable protection for eyes and skin when handling. Launder contaminated clothing before reuse. Avoid contact with incompatible materials. Store in cool, well-ventilated area away from sources of ignition. Keep container tightly closed when not in use. Store unused material in original container. Handle and store empty containers as if full.

W-OB Polymer Page 4 of 4

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

Use appropriate safety equipment including respiratory protection. Eliminate ignition sources. Ventilate area. Stop leak if possible to do so without risk. Soak up small spills with absorbent material. Contain large spills using absorbent materials. Collect spilled material and absorbents in approved containers for disposal. Prevent entry into bodies of water or sewer systems.

# WASTE DISPOSAL METHOD

Dispose in accordance with federal, provincial and local regulations. It is the responsibility of the end-user to determine at the time of disposal whether the product meets criteria for hazardous waste. Empty containers, which have not been cleaned and purged, contain residual hazardous material and must be disposed of, or recycled, according to 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 18, 2006 BY: Product safety committee

SUPERSEDES: March 31, 2003 PHONE: 780-440-4923