



HOUGHTON

SAFETY DATA SHEET

Issuing Date: 04-29-2015

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Version 1

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Code(s): 01002601-M
Product Name: HOUGHTO-SAFE 260

Recommended use: Fire-resistant hydraulic fluid
Uses advised against: Any other purpose.

Manufacturer, Importer, Supplier

Houghton International Inc. Madison & Van Buren Aves. Valley Forge, PA 19482 Telephone: 610-666-4000 FAX: 610-666-1376 Website: www.houghtonintl.com Customer Service: 888-459-9844	Houghton Canada 915 Meyerside Drive Mississauga ON LST 1R8
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Emergency telephone number

3E Company 1-866-519-4752 (USA, Canada, Mexico)
Company Access Code: 333938

SECTION 2: HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Specific target organ toxicity (repeated exposure)	Category 2
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GHS Label elements, including precautionary statements

Signal Word
Warning

Hazard Statements
May cause damage to organs through prolonged or repeated exposure



Precautionary Statements

Precautionary Statements - Prevention
Do not breathe dust/fume/gas/mist/vapors/spray

Precautionary Statements - Response

Get medical advice/attention if you feel unwell

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Other information

Not applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture. Health hazard information is based on its ingredients.

Chemical Name	CAS-No	Weight %
2,2'-Oxydiethanol	111-46-6	10% - 25%
Oxirane, 2-methyl-, polymer with oxirane, monobutyl ether	9038-95-3	0% - 1%
Neutralised 2-diethylaminoethanol	100-37-8*	0% - 1%
2-Diethylaminoethanol	100-37-8	0% - 1%

SECTION 4: FIRST AID MEASURES**4.1. Description of first-aid measures****General advice**

Do not get in eyes, on skin, or on clothing. When symptoms persist or in all cases of doubt seek medical advice.

Inhalation

IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician.

Skin contact

Wash off immediately with soap and plenty of water. Remove and wash contaminated clothing before re-use.

Eye contact

Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing.

Ingestion

Clean mouth with water and afterwards drink plenty of water. Call a POISON CENTER or doctor/physician if exposed or you feel unwell.

Protection of First-aiders

Use personal protective equipment. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

4.2. Most important symptoms and effects, both acute and delayed**Main Symptoms**

Gastrointestinal discomfort

4.3. Indication of immediate medical attention and special treatment needed**Notes to physician**

Treat symptomatically.

SECTION 5: FIRE FIGHTING MEASURES**5.1. Extinguishing media****Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.; Use CO2, dry chemical,

or foam, Water spray or fog

Extinguishing media which shall not be used for safety reasons

None

5.2. Special hazards arising from the substance or mixture**Special Hazard**

Thermal decomposition can lead to release of irritating gases and vapors.

Hazardous Decomposition Products

None under normal use

5.3. Advice for firefighters**Special protective equipment for fire-fighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing.

Advice for non-emergency personnel

Material can create slippery conditions.

Advice for emergency responders For personal protection see section 8.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

6.3. Methods and materials for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Dike to collect large liquid spills.

6.4. Reference to other sections

See Section 8/12/13 for additional information

SECTION 7: HANDLING AND STORAGE**7.1. Precautions for safe handling**

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Do not ingest. Ensure adequate ventilation. Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities**Technical measures/Storage conditions**

Keep container tightly closed in a dry and well-ventilated place.

Recommended Shelf Life

No information available.

Incompatible Materials

Strong oxidizing agents, Strong acids, Strong bases

7.3. Specific end uses

Specific use(s) Fire-resistant hydraulic fluid

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH	AIHA WEEL
2,2'-Oxydiethanol 111-46-6				TWA: 10 mg/m ³
Neutralised 2-diethylaminoethanol 100-37-8*	TWA: 2 ppm S*	TWA: 10 ppm TWA: 50 mg/m ³ (vacated) TWA: 10 ppm (vacated) TWA: 50 mg/m ³ (vacated) S* S*	IDLH: 100 ppm TWA: 10 ppm TWA: 50 mg/m ³	
2-Diethylaminoethanol 100-37-8	TWA: 2 ppm S*	TWA: 10 ppm TWA: 50 mg/m ³ (vacated) TWA: 10 ppm (vacated) TWA: 50 mg/m ³ (vacated) S* S*	IDLH: 100 ppm TWA: 10 ppm TWA: 50 mg/m ³	

Exposure controls

Engineering Measures Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Safety glasses with side-shields.

Skin and body protection Wear protective gloves/clothing.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations.

Hygiene measures Wear personal protective equipment. Regular cleaning of equipment, work area and clothing is recommended. Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state @20°C liquid
Odor amine-like
Appearance clear , Red
Odor Threshold Not Applicable

Property	Values	Note
pH	9.75	
Melting Point / Freezing Point	No information available	

Boiling point/boiling range	104 °C / 219 °F	
Flash point	Not Applicable	
Evaporation rate	< 1	(BuAc = 1)
Flammability (solid, gas)	No information available	
Flammability Limits in Air		
upper flammability limit	No information available	
Lower flammability limit	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Relative density	1.06	@ 15.5°C
Solubility(ies)	completely soluble	
Partition coefficient: n-octanol/water	Not Applicable	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Viscosity, kinematic	No information available	
Explosive properties	Not Applicable	
Oxidizing Properties	Not Applicable	

9.2 Other information

Viscosity, kinematic (100°C)	No information available	
Pour point	No information available	
VOC Content (ASTM E-1868-10)	78 g/L	ASTM E 1868-10
VOC Content	No information available	

SECTION 10: STABILITY AND REACTIVITY**10.1. Reactivity**

None under normal use conditions

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

None under normal use conditions

10.4. Conditions to avoid

Do not freeze

10.5. Incompatible Materials

Strong oxidizing agents, Strong acids, Strong bases

10.6. Hazardous decomposition products

None under normal use conditions

SECTION 11: TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

Product Information	There is no data available for this product
Inhalation	There is no data available for this product.
Eye contact	There is no data available for this product.

Skin contact There is no data available for this product.

Ingestion May cause adverse liver effects. May cause adverse kidney effects.

LC50 Inhalation: 5.01 mg/l (mist)

Component Information

Chemical Name	LD50 Oral (Rat)	LD50 Dermal (Rat/Rabbit)	LC50 Inhalation
2,2'-Oxydiethanol 111-46-6	12565 mg/kg (Rat)	= 11890 mg/kg (Rabbit)	
Oxirane, 2-methyl-, polymer with oxirane, monobutyl ether 9038-95-3	12300 µL/kg (Rat)	> 20 mL/kg (Rabbit)	
Neutralised 2-diethylaminoethanol 100-37-8*	1320 mg/kg (Rat)	1100 mg/kg (Rabbit)	
2-Diethylaminoethanol 100-37-8	1320 mg/kg (Rat)	1100 mg/kg (Rabbit)	

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization None known.

Germ Cell Mutagenicity None known.

Carcinogenicity None known.

Reproductive toxicity None known.

Specific target organ systemic toxicity (single exposure) None known.

Specific target organ systemic toxicity (repeated exposure) May cause damage to organs through prolonged or repeated exposure if swallowed. Ingestion constitutes the main danger because of the toxicity of ethylene glycol. May cause disorder and damage to the. Liver. Kidney.

Aspiration hazard None known.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

None known

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
2,2'-Oxydiethanol	1000: 72 h Skeletonema costatum mg/L EC50	75200: 96 h Pimephales promelas mg/L LC50 flow-through		84000: 48 h Daphnia magna mg/L EC50
Neutralised 2-diethylaminoethanol	30: 72 h Desmodesmus subspicatus mg/L EC50	1660-1920: 96 h Pimephales promelas mg/L LC50 flow-through 100-220: 96 h Leuciscus idus mg/L LC50 static		83.6: 48 h Daphnia magna Straus mg/L EC50
2-Diethylaminoethanol	30: 72 h Desmodesmus subspicatus mg/L EC50	1660-1920: 96 h Pimephales promelas mg/L LC50 flow-through 100-220: 96 h Leuciscus idus mg/L LC50		83.6: 48 h Daphnia magna Straus mg/L EC50

		static	
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Persistence and degradability

No information available.

Bioaccumulation

No information available.

Chemical Name	log Pow
2,2'-Oxydiethanol 111-46-6	-1.98
Neutralised 2-diethylaminoethanol 100-37-8*	0.21
2-Diethylaminoethanol 100-37-8	0.21

Other adverse effects

No information available

SECTION 13: DISPOSAL CONSIDERATIONS**Waste treatment****Waste Disposal Methods**

Dispose of in accordance with federal, state, and local regulations.

Contaminated packaging

Observe all label precautions until container is cleaned, reconditioned or destroyed.

SECTION 14: TRANSPORT INFORMATION**DOT**

Not regulated

TDG

Not regulated

ICAO/IATA

Not regulated

IMDG/IMO

Not regulated

SECTION 15: REGULATORY INFORMATION**International Inventories**

TSCA	Complies
DSL	Complies
AICS	Complies
PICCS	Complies
KECL	Complies
IECSC	Complies
ENCS	Complies

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory**AICS** - Australian Inventory of Chemical Substances**PICCS** - Philippines Inventory of Chemicals and Chemical Substances**KECL** - Korean Existing and Evaluated Chemical Substances**IECSC** - China Inventory of Existing Chemical Substances**ENCS** - Japan Existing and New Chemical Substances**U.S. Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	no
Sudden Release of Pressure Hazard	no
Reactive Hazard	no

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

U.S. State Regulations**SCAQMD Rule 1144**

The sale or distribution in the SCAQM District of California for metal working fluids or direct-contact lubricants is allowed if EITHER the VOC of the product itself OR the VOC of the diluted product at the point of use is less than the following limits: (1) 75 g VOC/L for metal forming, metal removal, metal treating; (2) 50 g VOC/L for metal protection, direct-contact lubricant. The VOC of this product as sold is: 78 gVOC/L (ASTM E-1868-10)

California Proposition 65

This product does not contain any Proposition 65 chemicals.

International Regulations

Mexico - Grade Moderate risk, Grade 2

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

D2B Toxic materials

Other information

Not applicable

SECTION 16: OTHER INFORMATION

NFPA	Health Hazard 2	Flammability 1	Instability 0	Physical and chemical hazards -
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Key or legend to abbreviations and acronyms used in the safety data sheet

STOT SE - Specific target organ systemic toxicity (Single exposure)
 STOT RE - Specific target organ systemic toxicity (repeated exposure)
 TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 VOC - Volatile organic compounds
 NIOSH IDLH: Immediately Dangerous to Life or Health

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Revision Note

No information available

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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