



HOUGHTON

SAFETY DATA SHEET

Revision Date: 09-03-2015

Version 3

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

1.1. Product identifier

Product Code(s): 42480000-M
 Product Name: HOCUT 4800

Recommended use: Metalworking 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

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)

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1

GHS Label elements, including precautionary statements

Signal Word
 DANGER

Hazard Statements

Causes skin irritation
 Causes serious eye damage
 May cause an allergic skin reaction



Precautionary Statements**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling
 Wear protective gloves/protective clothing/eye protection/face protection
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Contaminated work clothing should not be allowed out of the workplace

Precautionary Statements - Response

Specific treatment is urgent (see supplemental first aid instructions on this label)

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Immediately call a POISON CENTER or doctor/physician

Skin

IF ON SKIN: Wash with plenty of soap and water

Take off contaminated clothing and wash before reuse

If skin irritation or rash occurs: Get medical advice/attention

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 %
Highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C)	-	25% - 60%
Highly refined base oil (Viscosity >20.5 cSt @40°C)	-	10% - 25%
Neutralised Dicyclohexylamine	101-83-7*	2.5% - 10%
2,2'-methyliminodiethanol	105-59-9	2.5% - 10%
Amines, coco alkyl, ethoxylated	61791-14-8	1% - 2.5%
1-Aminopropan-2-ol	78-96-6	1% - 2.5%
Substituted amide (based on secondary amine)	NOT AVAILABLE	1% - 2.5%
2,2',2''-(Hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol	4719-04-4	0% - 1%

Additional information

Product containing mineral oil with less than 3% DMSO extract as measured by IP 346. See Section 11 for more information. See Section 15 for additional information on base oils.

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

General advice	Do not get in eyes, on skin, or on clothing. May produce an allergic reaction. Immediate medical attention is required.
Inhalation	Move to fresh air.
Skin contact	Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing before re-use. If symptoms persist, call a physician.
Eye contact	Keep eye wide open while rinsing. Immediately flush with plenty of water. After initial

flushing, remove any contact lenses and continue flushing for at least 15 minutes. Do not rub affected area. Seek immediate medical attention/advice.

Ingestion Clean mouth with water and afterwards drink plenty of water. Do not induce vomiting without medical advice.

Protection of First-aiders Use personal protective equipment. Avoid contact with skin, eyes and clothing.

4.2. Most important symptoms and effects, both acute and delayed

Main Symptoms Redness, Rash, Itching, May cause allergic skin reaction, Eye damage/irritation

4.3. Indication of immediate medical attention and special treatment needed

Notes to physician Treat symptomatically. May cause sensitization of susceptible persons.

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, Cool containers / tanks with water spray

Extinguishing media which shall not be used for safety reasons

Do not use a solid water stream as it may scatter and spread fire

5.2. Special hazards arising from the substance or mixture

Special Hazard

In the event of fire and/or explosion do not breathe fumes. Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). Thermal decomposition can lead to release of irritating gases and vapors. Water runoff can cause environmental damage.

Hazardous Decomposition Products

Incomplete combustion and thermolysis produces potentially toxic gases such as carbon monoxide and carbon dioxide

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

Remove all sources of ignition. Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing.

Advice for non-emergency personnel Evacuate personnel to safe areas. 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. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

6.3. Methods and materials for containment and cleaning up

After cleaning, flush away traces with water.

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

Ensure adequate ventilation. Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice. Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Advice on safe handling. Keep away from open flames, hot surfaces and sources of ignition.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition.

Recommended Shelf Life

No information available.

Incompatible Materials

Strong oxidizing agents, Strong acids, Strong bases

7.3. Specific end uses

Specific use(s) Metalworking fluid

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH	AIHA WEEL
Highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C) -	5 mg/m ³ as mist	5 mg/m ³ as mist		
Highly refined base oil (Viscosity >20.5 cSt @40°C) -	5 mg/m ³ as mist	5 mg/m ³ as mist		

Other Exposure Guidelines

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Hydrocarbon solvent vapor mixtures which do not have substance specific occupational exposure limits may be evaluated by the Reciprocal Calculation Procedure (RCP) which assigns a recommended occupational exposure limit based on the mass composition and hydrocarbon group guidance values (GGVs). Applicable recommended occupational exposure limits are shown in the table below.

Chemical Name	RCP OEL	Manufacturer
Distillates (petroleum), hydrotreated middle 64742-46-7	RCP: TWA 1200 mg/m ³ 143ppm	

Exposure controls

Engineering Measures	Showers Eyewash stations Ventilation systems.
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Individual protection measures, such as personal protective equipment

Eye/Face Protection	Tightly fitting safety goggles. If splashes are likely to occur, wear: Face-shield.
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. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice. Hygiene measures. Regular cleaning of equipment, work area and clothing is recommended.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties**

Physical state @20°C	liquid	Appearance	clear amber
Odor	mineral oil	Odor Threshold	Not Applicable
<u>Property</u>	<u>Values</u>	<u>Note</u>	
pH	10.3		
Melting Point / Freezing Point	No information available		
Boiling point/boiling range	102 °C / 216 °F		
Flash point	> 93.1 °C / > 200 °F		Cleveland Open Cup (COC)
Evaporation rate	No information available		
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	= 0.93		g/cm3 @15.5°C
Solubility(ies)	Emulsifies		
Partition coefficient: n-octanol/water	Not Applicable		
Autoignition temperature	No information available		
Decomposition temperature	No information available		
Viscosity, kinematic	> 30 cSt @ 40 °C		ASTM D 445
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)	168 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

Keep away from open flames, hot surfaces and sources of ignition

10.5. Incompatible Materials

Strong oxidizing agents, Strong acids, Strong bases

10.6. Hazardous decomposition products

Incomplete combustion and thermolysis produces potentially toxic gases such as carbon monoxide and carbon dioxide.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	There is no data available for this product.
Eye contact	May result in permanent damage including blindness.
Skin contact	Irritating to skin. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.
Ingestion	There is no data available for this product.

Component Information

Chemical Name	LD50 Oral (Rat)	LD50 Dermal (Rat/Rabbit)	LC50 Inhalation
Highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C) -	>2000 mg/kg	>2000 mg/kg	
Highly refined base oil (Viscosity >20.5 cSt @40°C) -	>2000 mg/kg	>2000 mg/kg	
2,2'-methylimino-diethanol 105-59-9	4680 mg/kg (Rat)	= 5990 mg/kg (Rabbit)	
Amines, coco alkyl, ethoxylated 61791-14-8	= 1200 mg/kg (Rat)		
1-Aminopropan-2-ol 78-96-6	2813 mg/kg (Rat)	1851 mg/kg (Rabbit)	
Substituted amide (based on secondary amine) NOT AVAILABLE	>2000 mg/kg (Rat)		
2,2',2''-(Hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol 4719-04-4	= 763 mg/kg (Rat)	> 2000 mg/kg (Rat)	0.371 mg/L (4h) (Rat)

Information on toxicological effects

Symptoms Moderate skin irritation. Repeated or prolonged skin contact may cause skin irritation and/or

dermatitis and sensitization of susceptible persons. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing. Corrosive - causes irreversible eye damage.

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

Sensitization	May cause sensitization by skin contact.
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)	None known.
Aspiration hazard	None known.
Other adverse effects	The document number 031 published 05-2013 by the DGUV Germany has been considered in the production of this safety data sheet (SDS). As stated in this document the classification of dicyclohexylamine is currently inconsistent between the manufacturer and the REACH classification. The classification used in this document is based on the European harmonised classification.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life with long lasting effects Toxic to aquatic organisms

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
Neutralised Dicyclohexylamine		62: 96 h Brachydanio rerio mg/L LC50 static		
2,2'-methyliminodiethanol	176: 72 h Scenedesmus subspicatus mg/L EC50	1466: 96 h Leuciscus idus mg/L LC50 static 1000: 96 h Pimephales promelas mg/L LC50		233: 48 h Daphnia magna mg/L EC50
1-Aminopropan-2-ol	23: 72 h Desmodesmus subspicatus mg/L EC50	2390-2650: 96 h Pimephales promelas mg/L LC50 flow-through		108.82: 48 h Daphnia magna Straus mg/L EC50
Substituted amide (based on secondary amine)		10 - 100: 96 h Brachydanio rerio mg/L LC50		
2,2',2''-(Hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol	6.66: 72 h Desmodesmus subspicatus mg/L EC50	16.07: 96 h Brachydanio rerio mg/L LC50		11.9: 48 h Daphnia magna mg/L EC50

Persistence and degradability

The product is not readily biodegradable, but it can be degraded by micro-organisms, it is regarded as being inherently biodegradable.

Bioaccumulation

Chemical Name	log Pow
Neutralised Dicyclohexylamine 101-83-7*	3.5

2,2'-methyliminodiethanol 105-59-9	-1.08
1-Aminopropan-2-ol 78-96-6	-0.94

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 Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14: TRANSPORT INFORMATION

DOT Not regulated.

TDG Not regulated.

ICAO/IATA

UN No. UN3082
Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Hazard class 9
Packing group III
Description UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (NEUTRALISED DICYCLOHEXYLAMINE, AMINES, COCO ALKYL, ETHOXYLATED), 9, III

IMDG/IMO

UN No. UN3082
Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Hazard class 9
Packing Group III
EmS No. F-A, S-F
Special Provisions 274, 335
Description UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (NEUTRALISED DICYCLOHEXYLAMINE, AMINES, COCO ALKYL, ETHOXYLATED), 9, III, Marine Pollutant

SECTION 15: REGULATORY INFORMATION

International Inventories

TSCA Complies
DSL All components are NOT on the Chemical Inventory
AICS Does not Comply
PICCS Does not Comply
KECL Does not Comply
IECSC Does not Comply
ENCS Does not Comply

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	no
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: 168 gVOC/L (ASTM E-1868-10)

California Proposition 65

WARNING: This product contains a chemical(s) known to the State of California to cause cancer and/or birth defects or other reproductive harm.

International Regulations**Mexico - Grade**

Slight risk, Grade 1

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

The highly refined base oil (Viscosity >20.5 cSt @40°C) contains one or more substance with the following CAS/EC numbers/REACH registration numbers:

Chemical Name	CAS-No
Lubricating oils (petroleum), C24-50, solvent-extd., dewaxed, hydrogenated	101316-72-7
Lubricating oils (petroleum), used, noncatalytically refined	101316-73-8
Distillates (petroleum), solvent-refined heavy paraffinic	64741-88-4
Residual oils (petroleum), solvent-refined	64742-01-4
Extracts (petroleum), residual oil solvent	64742-10-5
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5
Distillates (petroleum), hydrotreated light naphthenic	64742-53-6

Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7
Residual oils (petroleum), hydrotreated	64742-57-0
Lubricating oils (petroleum), hydrotreated spent	64742-58-1
Residual oils (petroleum), solvent-dewaxed	64742-62-7
Distillates (petroleum), solvent-dewaxed heavy, paraffinic	64742-65-0
Paraffin oils (petroleum), catalytic dewaxed heavy	64742-70-7
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	72623-86-0
Lubricating oils (petroleum), C20-C50, hydrotreated neutral oil-based	72623-87-1
Lubricating oils	74869-22-0
Paraffin oils	8012-95-1
White mineral oil (petroleum)	8042-47-5
C18-C50 branched, cyclic and linear hydrocarbons – Distillates	848301-69-9

The highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C) contains one or more substance with the following CAS/EC numbers/REACH registration numbers:

Chemical Name	CAS-No
Distillates (petroleum), straight-run middle	64741-44-2
Distillates (petroleum), heavy hydrocracked	64741-76-0
Distillates (petroleum), solvent-refined light paraffinic	64741-89-5
Distillates (petroleum), hydrotreated middle	64742-46-7
Distillates (petroleum), hydrotreated middle	64742-46-7
Distillates (petroleum), hydrotreated light	64742-47-8
Distillates (petroleum), hydrotreated light naphthenic	64742-53-6
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7
Distillates (petroleum), hydrotreated light paraffinic	64742-55-8
Distillates, petroleum, solvent-dewaxed light paraffinic	64742-56-9
Distillates (petroleum), solvent-dewaxed heavy, paraffinic	64742-65-0
Paraffin oils (petroleum), catalytic dewaxed light	64742-71-8
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	72623-86-0
Lubricating oils (petroleum), C20-C50, hydrotreated neutral oil-based	72623-87-1
White mineral oil (petroleum)	8042-47-5
C18-C50 branched, cyclic and linear hydrocarbons – Distillates	848301-69-9
Hydrocarbons, C14-C19, isoalkanes, cyclics, <2% aromatics	NOT AVAILABLE

SECTION 16: OTHER INFORMATION

NFPA **Health Hazard** 3 **Flammability** 1 **Instability** 0 **Physical and chemical hazards** -

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

Revision Date: 09-03-2015

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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