



HOUGHTON

SAFETY DATA SHEET

Revision Date: 06-10-2015

Version 1

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

1.1. Product identifier

Product Code(s): 42787200-M
 Product Name HOCUT 787-H

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
Reproductive Toxicity	Effects on or via lactation
Aspiration toxicity	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
 May cause harm to breast-fed children
 Effects on or via lactation
 May be fatal if swallowed and enters airways



Precautionary Statements

Precautionary Statements - Prevention

Obtain special instructions before use
 Do not breathe dust/fume/gas/mist/vapors/spray
 Avoid contact during pregnancy/while nursing
 Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Wear protective gloves/protective clothing/eye protection/face protection
 Contaminated work clothing should not be allowed out of the workplace

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
 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

Ingestion

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

Do NOT induce vomiting

Precautionary Statements - Storage

Store locked up

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%
Alkanes, chloro	61788-76-9	10% - 25%
Alcohols, C11-14-iso-, C13-rich, ethoxylated	78330-21-9	2.5% - 10%
Neutralised boric acid	10043-35-3*	2.5% - 10%
2,2',2''-Nitrilotriethanol	102-71-6	2.5% - 10%
Neutralised 2-Aminoethanol	141-43-5*	1% - 2.5%
2-Amino-2-methylpropanol	124-68-5	1% - 2.5%
2,2',2''-(Hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol	4719-04-4	0% - 1%

2-n-Butyl-benzo[d]isothiazol-3-one	4299-07-4	0% - 1%
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Additional information

Product containing mineral oil with less than 3% DMSO extract as measured by IP 346.
SVHC. ...Contains... BORIC ACID Concentration: < 5,5%. See Section 15 for additional information on base oils.

SECTION 4: FIRST AID MEASURES

4.1. Description of first-aid measures

General advice	Immediate medical attention is required. Do not get in eyes, on skin, or on clothing. May produce an allergic reaction. Do not breathe dust/fume/gas/mist/vapors/spray.
Inhalation	Potential for aspiration if swallowed. Get medical attention immediately if symptoms occur. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
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. Aspiration hazard if swallowed - can enter lungs and cause damage. Do not induce vomiting without medical advice. Call a POISON CENTER or doctor/physician if exposed or you feel unwell.
Protection of First-aiders	Use personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. 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	May be fatal if swallowed and enters airways, Redness, Itching, Rash, May cause allergic skin reaction, Eye damage/irritation
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4.3. Indication of immediate medical attention and special treatment needed

Notes to physician	Treat symptomatically. May cause sensitization of susceptible persons.
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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. Keep people away from and upwind of spill/leak.

Advice for non-emergency personnel

Material can create slippery conditions. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

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

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**

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

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		
Neutralised boric acid 10043-35-3*	STEL: 6 mg/m ³ inhalable fraction TWA: 2 mg/m ³ inhalable fraction			
2,2',2''-Nitrilotriethanol 102-71-6	TWA: 5 mg/m ³			
Neutralised 2-Aminoethanol 141-43-5*	STEL: 6 ppm TWA: 3 ppm	TWA: 3 ppm TWA: 6 mg/m ³ (vacated) TWA: 3 ppm (vacated) TWA: 8 mg/m ³ (vacated) STEL: 6 ppm (vacated) STEL: 15 mg/m ³	IDLH: 30 ppm TWA: 3 ppm TWA: 8 mg/m ³ STEL: 6 ppm STEL: 15 mg/m ³	

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**

Ensure adequate ventilation, especially in confined areas. Eyewash stations.

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. 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. Remove and wash contaminated clothing before re-use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties**Physical state @20°C**

liquid

Appearance

hazy amber

Odor

No information available

Odor Threshold

Not Applicable

**Property
pH**

Values
~ 10.5

Note

Melting Point / Freezing Point	No information available	
Boiling point/boiling range	> 149 °C / > 300 °F	
Flash point	> 100 °C / > 212 °F	Cleveland Open Cup (COC)
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	>1	(Air = 1.0)
Relative density	~ 0.9	g/cm3 @15.5°C
Solubility(ies)	emulsifiable	
Partition coefficient: n-octanol/water	Not Applicable	
Autoignition temperature	> 316 °C / > 601 °F	
Decomposition temperature	No information available	
Viscosity, kinematic	> 20 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)	No information available
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	May be fatal if swallowed and enters airways
Inhalation	Risk of serious damage to the lungs (by aspiration).
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 Risk of product entering the lungs on vomiting after ingestion.

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	
Alkanes, chloro 61788-76-9	>2000 mg/kg (Rat)	>2000 mg/kg (Rabbit)	
Neutralised boric acid 10043-35-3*	3500 mg/kg (Rat)		
2,2',2''-Nitrilotriethanol 102-71-6		> 16 mL/kg (Rat) > 2000 mg/kg (Rabbit)	
Neutralised 2-Aminoethanol 141-43-5*	1720 mg/kg (Rat)		
2-Amino-2-methylpropanol 124-68-5	2900 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	
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)
2-n-Butyl-benzo[d]isothiazol-3-one 4299-07-4	2000 mg/kg (Rat)	2000 mg/kg (Rabbit)	

Information on toxicological effects

Symptoms May be fatal if swallowed and enters airways. 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 May cause harm to breastfed babies. Contains a known or suspected reproductive toxin.

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

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

Aspiration hazard May be fatal if swallowed and enters airways.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
Alkanes, chloro	>3.2: 96 hr Selenastrum capricornutum mg/L EC50	>5000: 96 h Alburnus alburnus mg/L LC50		0.006: 48 h Daphnia magna mg/L EC50
Alcohols, C11-14-iso-, C13-rich, ethoxylated				1 - 10: 48 h Daphnia magna mg/L EC50
Neutralised boric acid	>28: 72 h Selenastrum capricornutum mg/L EC50	1020: 72 h Carassius auratus mg/L LC50 flow-through 627: 96 h Oncorhynchus tshawytscha mg/L LC50		115 - 153: 48 h Daphnia magna mg/L EC50
2,2',2''-Nitrilotriethanol	216: 72 h Desmodesmus subspicatus mg/L EC50 169: 96 h Desmodesmus subspicatus mg/L EC50	10600-13000: 96 h Pimephales promelas mg/L LC50 flow-through 1000: 96 h Pimephales promelas mg/L LC50 static 450-1000: 96 h Lepomis macrochirus mg/L LC50 static		1386: 24 h Daphnia magna mg/L EC50
Neutralised 2-Aminoethanol	15: 72 h Desmodesmus subspicatus mg/L EC50	227: 96 h Pimephales promelas mg/L LC50 flow-through 3684: 96 h Brachydanio rerio mg/L LC50 static 300-1000: 96 h Lepomis macrochirus mg/L LC50 static 114-196: 96 h Oncorhynchus mykiss mg/L LC50 static 200: 96 h Oncorhynchus mykiss mg/L LC50 flow-through		65: 48 h Daphnia magna mg/L EC50
2-Amino-2-methylpropanol	520: 72 h Desmodesmus subspicatus mg/L EC50	190: 96 h Lepomis macrochirus mg/L LC50 static		193: 48 h Daphnia magna mg/L EC50
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
2-n-Butyl-benzo[d]isothiazol-3-one	0.45: 72 h Pseudokirchneriella subcapitata mg/L EC50	0.15: 96 h Oncorhynchus mykiss mg/L LC50		0.093: 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

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Chemical Name	log Pow
2,2',2''-Nitrilotriethanol 102-71-6	-2.53

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

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. (ALKANES, CHLORO, 2-N-BUTYL-BENZO[D]ISOTHIAZOL-3-ONE), 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. (ALKANES, CHLORO, 2-N-BUTYL-BENZO[D]ISOTHIAZOL-3-ONE), 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 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

This product has not been tested for VOC content by the ASTM E-1868-10 method and is not approved for sale or distribution in the SCAQM District of California if the product is used as a metal forming, metal removal, metal treating, metal protection fluid or as a direct-contact lubricant.

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
D2A Very toxic materials

Other information

Not applicable

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
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
Hydrocarbons, C14-C19, isoalkanes, cyclics, <2% aromatics	NOT AVAILABLE

SECTION 16: OTHER INFORMATION

NFPA

Health Hazard 4

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: 06-10-2015

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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