



HOUGHTON

SAFETY DATA SHEET

Revision Date: 09-16-2015

Version 2

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

1.1. Product identifier

Product Code(s): 42002564-M
Product Name DASCO CLEAR 2564 M

Recommended use Metalworking fluid, water based
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)

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A

GHS Label elements, including precautionary statements

Signal Word
Warning

Hazard Statements
Causes skin irritation
Causes serious eye irritation



Precautionary Statements

Precautionary Statements - Prevention

Use personal protective equipment as required
 Wash face, hands and any exposed skin thoroughly after handling
 Wear eye/face protection

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

If eye irritation persists: Get medical advice/attention

Skin

IF ON SKIN: Wash with plenty of soap and water

If skin irritation occurs: Get medical advice/attention

Take off contaminated clothing and wash before reuse

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 %
Neutralised 2,2',2"-Nitriloethanol	102-71-6*	10% - 25%
Oxirane, 2-methyl-, polymer with oxirane	9003-11-6	2.5% - 10%
Neutralised 3,5,5-trimethylhexanoic acid	3302-10-1*	2.5% - 10%
2,2',2"-Nitrilotriethanol	102-71-6	2.5% - 10%
Borax (B ₄ Na ₂ O ₇ ·10H ₂ O)	1303-96-4	1% - 2.5%
Neutralised 2,2'-Iminodiethanol	111-42-2*	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	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, Eye damage/irritation

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**

Water runoff can cause environmental damage.

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. 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

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Ensure adequate ventilation. Advice on safe handling.

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) Metalworking fluid, water based

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters****Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH	AIHA WEEL
Neutralised 2,2',2''-Nitriloethanol 102-71-6*	TWA: 5 mg/m ³			
2,2',2''-Nitrilotriethanol 102-71-6	TWA: 5 mg/m ³			
Borax (B4Na2O7.10H2O) 1303-96-4	STEL: 6 mg/m ³ inhalable fraction TWA: 2 mg/m ³ inhalable fraction	(vacated) TWA: 10 mg/m ³	TWA: 5 mg/m ³	
Neutralised 2,2'-Iminodiethanol 111-42-2*	TWA: 1 mg/m ³ inhalable fraction and vapor Skin	(vacated) TWA: 3 ppm (vacated) TWA: 15 mg/m ³	TWA: 3 ppm TWA: 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).

Exposure controls**Engineering Measures**

Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment**Eye/Face Protection**

Tightly fitting safety goggles.

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. 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 yellow
Odor	Slight	Odor Threshold	Not Applicable
<u>Property</u>	<u>Values</u>		<u>Note</u>
pH	8.3		
Melting Point / Freezing Point	No information available		
Boiling point/boiling range	102 °C / 215 °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	1.0818		@15.5°C
Solubility(ies)	Soluble in water		
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)	80 g/L		ASTM E1868-10
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	May cause skin and eye irritation
Inhalation	There is no data available for this product.
Eye contact	Irritating to eyes.
Skin contact	Irritating to skin.
Ingestion	There is no data available for this product.

Component Information

Chemical Name	LD50 Oral (Rat)	LD50 Dermal (Rat/Rabbit)	LC50 Inhalation
Neutralised 2,2',2''-Nitriloethanol 102-71-6*	4190 mg/kg (Rat)	2000 mg/kg (Rabbit) 16 mL/kg (Rat)	
Oxirane, 2-methyl-, polymer with oxirane 9003-11-6	= 5700 mg/kg (Rat)		= 320 mg/m ³ (Rat) 4 h
Neutralised 3,5,5-trimethylhexanoic acid 3302-10-1*	1100 mg/kg (Rat)	2000 mg/kg (Rabbit)	
2,2',2''-Nitrilotriethanol 102-71-6		> 16 mL/kg (Rat) > 2000 mg/kg (Rabbit)	
Borax (B4Na2O7.10H2O) 1303-96-4	4500mg/kg (Rat)	> 2000 mg/kg (Rabbit)	
Neutralised 2,2'-Iminodiethanol 111-42-2*	1100 mg/kg (Rat)		

Information on toxicological effects

Symptoms Moderate skin irritation. Moderately irritating to the eyes.

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

Sensitization None known.

Germ Cell Mutagenicity None known.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Neutralised 2,2',2''-Nitriloethanol 102-71-6*		Group 3		
Neutralised 2,2'-Iminodiethanol 111-42-2*	A3	Group 2B		X

*IARC: (International Agency for Research on Cancer)
Group 3 - Not Classifiable as to Carcinogenicity in Humans*

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.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life with long lasting effects

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
Neutralised 2,2',2"-Nitriloethanol	216: 72 h <i>Desmodesmus subspicatus</i> mg/L EC50 169: 96 h <i>Desmodesmus subspicatus</i> mg/L EC50	10600-13000: 96 h <i>Pimephales promelas</i> mg/L LC50 flow-through 1000: 96 h <i>Pimephales promelas</i> mg/L LC50 static 450-1000: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static		1386: 24 h <i>Daphnia magna</i> mg/L EC50
Oxirane, 2-methyl-, polymer with oxirane		>1000: 96 h <i>Leuciscus idus</i> mg/L LC50		>100: 48 h <i>Daphnia magna</i> mg/L EC50
Neutralised 3,5,5-trimethylhexanoic acid	81: 72 h <i>Pseudokirchneriella subcapitata</i> mg/L EC50	122: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 190: 96 h <i>Lepomis gibbosus</i> mg/L LC50		68: 48 h <i>Daphnia magna</i> mg/L EC50
2,2',2"-Nitrilotriethanol	216: 72 h <i>Desmodesmus subspicatus</i> mg/L EC50 169: 96 h <i>Desmodesmus subspicatus</i> mg/L EC50	10600-13000: 96 h <i>Pimephales promelas</i> mg/L LC50 flow-through 1000: 96 h <i>Pimephales promelas</i> mg/L LC50 static 450-1000: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static		1386: 24 h <i>Daphnia magna</i> mg/L EC50
Borax (B4Na2O7.10H2O)	24: 96 h <i>Scenedesmus subspicatus</i> mg/L EC10	74: 96 h <i>Limanda limanda</i> mg/L LC50		242: 24 h <i>Daphnia magna</i> mg/L EC50
Neutralised 2,2'-Iminodiethanol	2.2: 96 h <i>Pseudokirchnerella subcapitata</i> mg/L EC50	1370 - 1550: 96 h <i>Pimephales promelas</i> mg/L LC50		30.1 - 89.9: 48 h <i>Daphnia magna</i> mg/L EC50

Persistence and degradability

No information available.

Bioaccumulation

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Chemical Name	log Pow
2,2',2"-Nitrilotriethanol 102-71-6	-2.53
Borax (B4Na2O7.10H2O) 1303-96-4	-0.757
Neutralised 2,2'-Iminodiethanol 111-42-2*	-2.18

Mobility

Will likely be mobile in the environment due to its water solubility.

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. (1,2-ETHANEDIAMINE, N1,N1,N2,N2-TETRAMETHYL-, POLYMER WITH 1,1'-OXYBIS[2-CHLOROETHANE]), 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. (1,2-ETHANEDIAMINE, N1,N1,N2,N2-TETRAMETHYL-, POLYMER WITH 1,1'-OXYBIS[2-CHLOROETHANE]), 9, III, Marine Pollutant

SECTION 15: REGULATORY INFORMATION**International Inventories**

TSCA	Complies
DSL	Complies
AICS	Complies
PICCS	Does not Comply
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.

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Neutralised 2,2'-Iminodiethanol	100 lb	

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: 80 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**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** -

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: 09-16-2015

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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