

**1. Identification**

<b>Product identifier</b>	<b>Rogers Advanced Bore Cleaning Solution</b>		
<b>Other means of identification</b>			
<b>SDS number</b>	64382		
<b>Part No.</b>	64382		
<b>Tariff code</b>	3402.90.5030		
<b>Recommended use</b>	Cleaner		
<b>Recommended restrictions</b>	None known.		
<b>Manufacturer/Importer/Supplier/Distributor information</b>			
<b>Manufacturer</b>			
<b>Company name</b>	RSC Chemical Solutions		
<b>Address</b>	600 Radiator Road Indian Trail, NC 28079 United States		
<b>Telephone</b>	Customer Service:	(704) 821-7643	
	Technical:	(704) 821-7643	
<b>Website</b>	www.rscbrands.com		
<b>E-mail</b>	sds@rscbrands.com		
<b>Emergency phone number</b>	Poison Control	(303) 623-5716	
	Poison Control	877-740-5015	

**2. Hazard(s) identification**

<b>Physical hazards</b>	Not classified.		
<b>Health hazards</b>	Skin corrosion/irritation		Category 2
	Serious eye damage/eye irritation		Category 1
	Sensitization, skin		Category 1
	Specific target organ toxicity, repeated exposure		Category 2
<b>Environmental hazards</b>	Not classified.		
<b>OSHA defined hazards</b>	Not classified.		
<b>Label elements</b>			



<b>Signal word</b>	Danger		
<b>Hazard statement</b>	Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. May cause damage to organs through prolonged or repeated exposure.		
<b>Precautionary statement</b>			
<b>Prevention</b>	Do not breathe mist or vapor. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Wear eye protection/face protection. Wear protective gloves.		
<b>Response</b>	If on skin: Wash with plenty of water. 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/doctor. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.		
<b>Storage</b>	Store away from incompatible materials.		
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.		
<b>Hazard(s) not otherwise classified (HNOC)</b>	None known.		

**Supplemental information**

NOTE: This product is a consumer product and is labeled in accordance with the US Consumer Product Safety Commission regulations which take precedence over OSHA Hazard Communication labeling. The container label may not include the OSHA label elements listed in this document. Always carefully review the entire SDS and the product label prior to use in the workplace.

### 3. Composition/information on ingredients

**Mixtures**

Chemical name	Common name and synonyms	CAS number	%
Water		7732-18-5	30 - < 40
Fullers Earth		8031-18-3	20 - < 30
Triethanolamine		102-71-6	10 - < 20
Tripropylene Glycol Monomethyl Ether		25498-49-1	5 - < 10
Diethanolamine		111-42-2	3 - < 5
Oleic Acid		112-80-1	3 - < 5
Poly(oxyethylene) Sorbitol Hexaoleate		57171-56-9	1 - < 3
Quartz [silica Crystalline]		14808-60-7	1 - < 3
Cellulose, 2-hydroxypropyl Methyl Ester		9004-65-3	< 1
Morpholine		110-91-8	< 1
Propylene Glycol		57-55-6	< 1
Sodium Nitrite		7632-00-0	< 0.2
Ethylenediamine		107-15-3	< 0.1
Glyoxal		107-22-2	< 0.1
Methoxyethanol		109-86-4	< 0.1
N-Ethylmorpholine		100-74-3	< 0.1
Polyglycol		Trade Secret	< 0.1
Sodium Chloride		7647-14-5	< 0.1

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

### 4. First-aid measures

<b>Inhalation</b>	Move to fresh air. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Wash contaminated clothing before reuse.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
<b>Ingestion</b>	Rinse mouth. Get medical attention if symptoms occur.
<b>Most important symptoms/effects, acute and delayed</b>	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash. Prolonged exposure may cause chronic effects.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Alcohol resistant foam. Dry powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.

<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways.  Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.  Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.  Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

<b>Precautions for safe handling</b>	Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
<b>Conditions for safe storage, including any incompatibilities</b>	Store in tightly closed container. Keep out of the reach of children. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

### Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Ethylenediamine (CAS 107-15-3)	PEL	25 mg/m3	
		10 ppm	
Methoxyethanol (CAS 109-86-4)	PEL	80 mg/m3	
		25 ppm	
Morpholine (CAS 110-91-8)	PEL	70 mg/m3	
		20 ppm	
N-Ethylmorpholine (CAS 100-74-3)	PEL	94 mg/m3	
		20 ppm	
Quartz [silica Crystalline] (CAS 14808-60-7)	PEL	0.05 mg/m3	Respirable dust.

#### US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value	Form
Quartz [silica Crystalline] (CAS 14808-60-7)	TWA	0.1 mg/m3	Respirable.
		2.4 mppcf	Respirable.

**US. ACGIH Threshold Limit Values**

Components	Type	Value	Form
Diethanolamine (CAS 111-42-2)	TWA	1 mg/m3	Inhalable fraction and vapor.
Ethylenediamine (CAS 107-15-3)	TWA	10 ppm	
Glyoxal (CAS 107-22-2)	TWA	0.1 mg/m3	Inhalable fraction and vapor.
Methoxyethanol (CAS 109-86-4)	TWA	0.1 ppm	
Morpholine (CAS 110-91-8)	TWA	20 ppm	
N-Ethylmorpholine (CAS 100-74-3)	TWA	5 ppm	
Quartz [silica Crystalline] (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.
Triethanolamine (CAS 102-71-6)	TWA	5 mg/m3	

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value	Form
Diethanolamine (CAS 111-42-2)	TWA	15 mg/m3	
		3 ppm	
Ethylenediamine (CAS 107-15-3)	TWA	25 mg/m3	
		10 ppm	
Methoxyethanol (CAS 109-86-4)	TWA	0.3 mg/m3	
		0.1 ppm	
Morpholine (CAS 110-91-8)	STEL	105 mg/m3	
		30 ppm	
	TWA	70 mg/m3	
		20 ppm	
N-Ethylmorpholine (CAS 100-74-3)	TWA	23 mg/m3	
		5 ppm	
Quartz [silica Crystalline] (CAS 14808-60-7)	TWA	0.05 mg/m3	Respirable dust.

**US. Workplace Environmental Exposure Level (WEEL) Guides**

Components	Type	Value	Form
Glyoxal (CAS 107-22-2)	TWA	0.1 mg/m3	Inhalable fraction and vapor.
		0.042 ppm	Inhalable fraction and vapor.
Propylene Glycol (CAS 57-55-6)	TWA	10 mg/m3	Aerosol.

**Biological limit values****ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
Methoxyethanol (CAS 109-86-4)	1 mg/g	2-Methoxyacetic acid	Creatinine in urine	*

\* - For sampling details, please see the source document.

**Exposure guidelines****US - California OELs: Skin designation**

Diethanolamine (CAS 111-42-2)	Can be absorbed through the skin.
Methoxyethanol (CAS 109-86-4)	Can be absorbed through the skin.

Morpholine (CAS 110-91-8)  
N-Ethylmorpholine (CAS 100-74-3)

Can be absorbed through the skin.  
Can be absorbed through the skin.

**US - Minnesota Haz Subs: Skin designation applies**

Methoxyethanol (CAS 109-86-4)  
Morpholine (CAS 110-91-8)  
N-Ethylmorpholine (CAS 100-74-3)

Skin designation applies.  
Skin designation applies.  
Skin designation applies.

**US - Tennessee OELs: Skin designation**

Methoxyethanol (CAS 109-86-4)  
Morpholine (CAS 110-91-8)  
N-Ethylmorpholine (CAS 100-74-3)

Can be absorbed through the skin.  
Can be absorbed through the skin.  
Can be absorbed through the skin.

**US ACGIH Threshold Limit Values: Skin designation**

Diethanolamine (CAS 111-42-2)  
Ethylenediamine (CAS 107-15-3)  
Methoxyethanol (CAS 109-86-4)  
Morpholine (CAS 110-91-8)  
N-Ethylmorpholine (CAS 100-74-3)

Can be absorbed through the skin.  
Can be absorbed through the skin.  
Can be absorbed through the skin.  
Can be absorbed through the skin.  
Can be absorbed through the skin.

**US NIOSH Pocket Guide to Chemical Hazards: Skin designation**

Methoxyethanol (CAS 109-86-4)  
Morpholine (CAS 110-91-8)  
N-Ethylmorpholine (CAS 100-74-3)

Can be absorbed through the skin.  
Can be absorbed through the skin.  
Can be absorbed through the skin.

**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Methoxyethanol (CAS 109-86-4)  
Morpholine (CAS 110-91-8)  
N-Ethylmorpholine (CAS 100-74-3)

Can be absorbed through the skin.  
Can be absorbed through the skin.  
Can be absorbed through the skin.

**Appropriate engineering controls**

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

Chemical respirator with organic vapor cartridge and full facepiece. Applicable for industrial settings only.

**Skin protection**

**Hand protection**

Wear appropriate chemical resistant gloves. Applicable for industrial settings only.

**Other**

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended. Applicable for industrial settings only.

**Respiratory protection**

Chemical respirator with organic vapor cartridge and full facepiece. Chemical respirator with organic vapor cartridge and full facepiece if threshold limits are exceeded. Applicable for industrial settings only.

**Thermal hazards**

Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations**

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

**9. Physical and chemical properties**

<b>Appearance</b>	Liquid Opaque
<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	Beige.
<b>Odor</b>	Amine-like.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	68.9 °F (20.5 °C) estimated
<b>Initial boiling point and boiling range</b>	575 °F (301.67 °C) estimated
<b>Flash point</b>	329.8 °F (165.5 °C) estimated
<b>Evaporation rate</b>	Not available.

<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	0.00372 hPa estimated
<b>Vapor density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Density</b>	9.6 lbs/gal
<b>Explosive properties</b>	Not explosive.
<b>Flammability class</b>	Combustible IIIB estimated
<b>Oxidizing properties</b>	Not oxidizing.
<b>Percent volatile</b>	38.1 % estimated
<b>Specific gravity</b>	1.15039 estimated

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Contact with incompatible materials.
<b>Incompatible materials</b>	Peroxides. Phenols.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	Prolonged inhalation may be harmful.
<b>Skin contact</b>	Causes skin irritation. May cause an allergic skin reaction.
	Prolonged or repeated exposure may cause liver and kidney damage. These effects have not been observed in humans.
<b>Eye contact</b>	Causes serious eye damage.
<b>Ingestion</b>	Expected to be a low ingestion hazard.

**Symptoms related to the physical, chemical and toxicological characteristics** Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

### Information on toxicological effects

**Acute toxicity** Not known.

Components	Species	Test Results
Diethanolamine (CAS 111-42-2)		
<u>Acute</u>		
<b>Oral</b>		
LD50	Rat	710 mg/kg
Ethylenediamine (CAS 107-15-3)		
<u>Acute</u>		
<b>Dermal</b>		
LD50	Rabbit	560 mg/kg, 24 Hours
<b>Inhalation</b>		
<i>Vapor</i>		
LC50	Rat	7.35 mg/l, 8 Hours
<b>Oral</b>		
LD50	Rat	500 mg/kg
Glyoxal (CAS 107-22-2)		
<u>Acute</u>		
<b>Dermal</b>		
LD50	Rat	> 800 mg/kg, 24 Hours
<b>Inhalation</b>		
LC50	Rat	> 1.3 mg/l, 4 Hours 2.47 mg/l, 4 Hours
<b>Oral</b>		
LD50	Rat	762 mg/kg
Methoxyethanol (CAS 109-86-4)		
<u>Acute</u>		
<b>Dermal</b>		
LD50	Rabbit	1280 mg/kg
<b>Oral</b>		
LD50	Rat	2257 mg/kg
Morpholine (CAS 110-91-8)		
<u>Acute</u>		
<b>Oral</b>		
LD50	Rat	1.05 g/kg
N-Ethylmorpholine (CAS 100-74-3)		
<u>Acute</u>		
<b>Oral</b>		
LD50	Rat	1490 - 2120 mg/kg
Oleic Acid (CAS 112-80-1)		
<u>Acute</u>		
<b>Dermal</b>		
LD50	Guinea pig	> 3000 mg/kg
<b>Oral</b>		
LD50	Rat	74 g/kg
Propylene Glycol (CAS 57-55-6)		
<u>Acute</u>		
<b>Dermal</b>		
LD50	Rabbit	> 2000 mg/kg, 24 Hours
<b>Oral</b>		
LD50	Rat	22000 mg/kg

Components	Species	Test Results
Sodium Chloride (CAS 7647-14-5)		
<b><u>Acute</u></b>		
<b>Oral</b>		
LD50	Rat	3000 mg/kg
Sodium Nitrite (CAS 7632-00-0)		
<b><u>Acute</u></b>		
<b>Oral</b>		
LD50	Rat	85 mg/kg
Triethanolamine (CAS 102-71-6)		
<b><u>Acute</u></b>		
<b>Dermal</b>		
LD50	Rabbit	> 2000 mg/kg
<b>Oral</b>		
LD50	Rat	6400 mg/kg
Tripropylene Glycol Monomethyl Ether (CAS 25498-49-1)		
<b><u>Acute</u></b>		
<b>Dermal</b>		
LD50	Rabbit	15440 mg/kg, 24 Hours
<b>Oral</b>		
LD50	Rat	3400 mg/kg
<b>Skin corrosion/irritation</b>	Causes skin irritation.	
<b>Serious eye damage/eye irritation</b>	Causes serious eye damage.	
<b>Respiratory or skin sensitization</b>		
<b>ACGIH sensitization</b>		
GLYOXAL, INHALABLE FRACTION AND VAPOR (CAS 107-22-2)	Dermal sensitization	
<b>Respiratory sensitization</b>	Not a respiratory sensitizer.	
<b>Skin sensitization</b>	May cause an allergic skin reaction.	
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
<b>Carcinogenicity</b>	Risk of cancer cannot be excluded with prolonged exposure.	
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>		
Diethanolamine (CAS 111-42-2)	2B Possibly carcinogenic to humans.	
Morpholine (CAS 110-91-8)	3 Not classifiable as to carcinogenicity to humans.	
Quartz [silica Crystalline] (CAS 14808-60-7)	1 Carcinogenic to humans.	
Triethanolamine (CAS 102-71-6)	3 Not classifiable as to carcinogenicity to humans.	
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)</b>		
Quartz [silica Crystalline] (CAS 14808-60-7)	Cancer	
<b>US. National Toxicology Program (NTP) Report on Carcinogens</b>		
Quartz [silica Crystalline] (CAS 14808-60-7)	Known To Be Human Carcinogen.	
<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.	
<b>Specific target organ toxicity - single exposure</b>	Not classified.	
<b>Specific target organ toxicity - repeated exposure</b>	May cause damage to organs through prolonged or repeated exposure.	
<b>Aspiration hazard</b>	Not an aspiration hazard.	
<b>Chronic effects</b>	May cause damage to organs through prolonged or repeated exposure. May be harmful if absorbed through skin. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.	
	Prolonged or repeated exposure may cause liver and kidney damage. These effects have not been observed in humans.	



## 12. Ecological information

**Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results
Diethanolamine (CAS 111-42-2)		
<b>Aquatic</b>		
Crustacea	EC50	Water flea (Ceriodaphnia dubia) 61.8 - 86.04 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas) 100 mg/l, 96 hours
Ethylenediamine (CAS 107-15-3)		
<b>Aquatic</b>		
Fish	LC50	Fathead minnow (Pimephales promelas) 98.6 - 131.6 mg/l, 96 hours
Glyoxal (CAS 107-22-2)		
<b>Aquatic</b>		
Fish	LC50	Fathead minnow (Pimephales promelas) 215 mg/l, 96 hours
Methoxyethanol (CAS 109-86-4)		
<b>Aquatic</b>		
Fish	LC50	Bluegill (Lepomis macrochirus) > 10000 mg/l, 96 hours
Morpholine (CAS 110-91-8)		
<b>Aquatic</b>		
Fish	LC50	Zebra danio (Danio rerio) > 1 mg/l, 96 hours
Oleic Acid (CAS 112-80-1)		
<b>Aquatic</b>		
Fish	LC50	Fathead minnow (Pimephales promelas) 205 mg/l, 96 hours
Propylene Glycol (CAS 57-55-6)		
<b>Aquatic</b>		
Crustacea	EC50	Water flea (Daphnia magna) > 10000 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas) 710 mg/l, 96 hours
Sodium Chloride (CAS 7647-14-5)		
<b>Aquatic</b>		
Crustacea	EC50	Water flea (Daphnia magna) 340.7 - 469.2 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas) 6020 - 7070 mg/l, 96 hours
Sodium Nitrite (CAS 7632-00-0)		
<b>Aquatic</b>		
Crustacea	EC50	Greasyback shrimp (Metapenaeus ensis) 16.14 - 26.61 mg/l, 48 hours
Fish	LC50	Rainbow trout, donaldson trout (Oncorhynchus mykiss) 0.15 - 0.25 mg/l, 96 hours
Triethanolamine (CAS 102-71-6)		
<b>Aquatic</b>		
Crustacea	EC50	Water flea (Ceriodaphnia dubia) 565.2 - 658.3 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas) 10610 - 13010 mg/l, 96 hours

**Persistence and degradability** No data is available on the degradability of any ingredients in the mixture.

### Bioaccumulative potential

#### Partition coefficient n-octanol / water (log Kow)

Diethanolamine	-1.43
Ethylenediamine	-2.04
Methoxyethanol	-0.77
Morpholine	-0.86
Propylene Glycol	-0.92
Triethanolamine	-1

**Mobility in soil** No data available.

**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

### 13. Disposal considerations

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

### 14. Transport information

#### DOT

**UN number** UN3082  
**UN proper shipping name** Environmentally hazardous substances, liquid, n.o.s., MARINE POLLUTANT, Limited Quantity  
**Transport hazard class(es)**  
**Class** 9  
**Subsidiary risk** -  
**Label(s)** 9  
**Packing group** III  
**Environmental hazards**  
**Marine pollutant** Yes  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.  
**Special provisions** 8, 146, 335, IB3, T4, TP1, TP29  
**Packaging exceptions** 155  
**Packaging non bulk** 203  
**Packaging bulk** 241

#### IATA

**UN number** UN3082  
**UN proper shipping name** Environmentally hazardous substance, liquid, n.o.s., Limited Quantity  
**Transport hazard class(es)**  
**Class** 9  
**Subsidiary risk** -  
**Packing group** III  
**Environmental hazards** Yes  
**ERG Code** 9L  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.  
**Other information**

**Passenger and cargo aircraft** Allowed with restrictions.

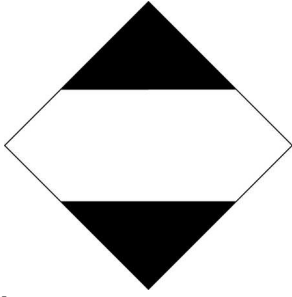
**Cargo aircraft only** Allowed with restrictions.

#### IMDG

**UN number** UN3082  
**UN proper shipping name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., MARINE POLLUTANT, Limited Quantity  
**Transport hazard class(es)**  
**Class** 9  
**Subsidiary risk** -  
**Packing group** III  
**Environmental hazards**  
**Marine pollutant** Yes  
**EmS** F-A, S-F  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not established.

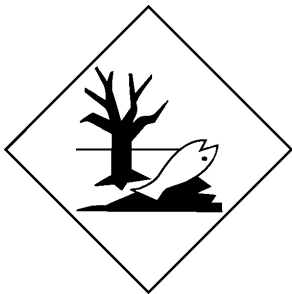
DOT; IMDG



IATA



Marine pollutant



General information

IMDG Regulated Marine Pollutant. DOT Regulated Marine Pollutant.

**15. Regulatory information**

**US federal regulations**

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Methoxyethanol (CAS 109-86-4)	1.0 % One-Time Export Notification only.
Sodium Nitrite (CAS 7632-00-0)	1.0 % One-Time Export Notification only.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Diethanolamine (CAS 111-42-2)	Listed.
Ethylenediamine (CAS 107-15-3)	Listed.
Methoxyethanol (CAS 109-86-4)	Listed.
Morpholine (CAS 110-91-8)	Listed.
N-Ethylmorpholine (CAS 100-74-3)	Listed.
Sodium Nitrite (CAS 7632-00-0)	Listed.

**SARA 304 Emergency release notification**

Ethylenediamine (CAS 107-15-3)	5000 LBS
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**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)**

Quartz [silica Crystalline] (CAS 14808-60-7)	Cancer lung effects immune system effects kidney effects
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**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**SARA 302 Extremely hazardous substance**

Chemical name	CAS number	Reportable quantity (pounds)	Threshold planning quantity (pounds)	Threshold planning quantity, lower value (pounds)	Threshold planning quantity, upper value (pounds)
Ethylenediamine	107-15-3	5000	10000		

SARA 311/312 Hazardous chemical No (Exempt)

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Diethanolamine	111-42-2	3 - < 5

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Diethanolamine (CAS 111-42-2)  
Methoxyethanol (CAS 109-86-4)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Ethylenediamine (CAS 107-15-3)

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

California Proposition 65



**WARNING:** This product can expose you to chemicals including Diethanolamine, which is known to the State of California to cause cancer, and Methoxyethanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

California Proposition 65 - CRT: Listed date/Carcinogenic substance

Diethanolamine (CAS 111-42-2) Listed: June 22, 2012  
Quartz [silica Crystalline] (CAS 14808-60-7) Listed: October 1, 1988

California Proposition 65 - CRT: Listed date/Developmental toxin

Methoxyethanol (CAS 109-86-4) Listed: January 1, 1989

California Proposition 65 - CRT: Listed date/Male reproductive toxin

Methoxyethanol (CAS 109-86-4) Listed: January 1, 1989

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Diethanolamine (CAS 111-42-2)  
Ethylenediamine (CAS 107-15-3)  
Methoxyethanol (CAS 109-86-4)  
Quartz [silica Crystalline] (CAS 14808-60-7)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)  
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	11-12-2015
Revision date	07-24-2019
Version #	02

**HMIS® ratings**

Health: 3\*  
Flammability: 0  
Physical hazard: 0

**NFPA ratings**

Health: 3  
Flammability: 0  
Instability: 0

**NFPA ratings****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.

**Revision information**

This document has undergone significant changes and should be reviewed in its entirety.