

1. Identification

Product identifier	Gunk Engine Cleaner - Foamy	
Other means of identification		
SDS number	FEB1	
Part No.	FEB1	
Tariff code	3402.20.5100	
Recommended use	Engine Cleaner	
Recommended restrictions	None known.	
Manufacturer/Importer/Supplier/Distributor information		
Manufacturer		
Company name	RSC Chemical Solutions	
Address	600 Radiator Road Indian Trail, NC 28079 United States	
Telephone	Customer Service:	(704) 821-7643
	Technical:	(704) 684-1811
Website	www.rscbrands.com	
E-mail	sds@rscbrands.com	
Emergency phone number	Emergency Telephone:	(303) 623-5716
	Emergency Contact:	RMPDC (877-740-5015)

2. Hazard(s) identification

Physical hazards	Flammable aerosols	Classification not possible
Health hazards	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Carcinogenicity	Category 2
	Specific target organ toxicity, repeated exposure	Category 2
	Aspiration hazard	Category 1
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	
Label elements		



Signal word	Danger
Hazard statement	May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure.
Precautionary statement	
Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist or vapor. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.
Response	If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. 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. If exposed or concerned: Get medical advice/attention. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
Storage	Store locked up.

Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	16.37% of the mixture consists of component(s) of unknown acute oral toxicity. 17.37% of the mixture consists of component(s) of unknown acute dermal toxicity. 9.87% of the mixture consists of component(s) of unknown acute inhalation toxicity.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Petroleum Gases, Liquefied, Sweetened; Petroleum Gas;		68476-86-8	5 - < 10
Petroleum naphtha		64742-94-5	3 - < 5
Kerosine (petroleum)		8008-20-6	1 - < 3
Nonylphenolethoxylate		9016-45-9	1 - < 3
Tert-butylbenzene		98-06-6	1 - < 3
1,4-diethylbenzene		105-05-5	< 1
2-Butoxyethanol		111-76-2	< 1
Morpholine		110-91-8	< 1
NAPHTHALENE		91-20-3	< 0.3
1,2,3-trimethylbenzene		526-73-8	< 0.2
1,2,4-Trimethylbenzene		95-63-6	< 0.2
Triéthanolamine		102-71-6	< 0.2
2-methoxyethanol		109-86-4	< 0.1
4-ethylmorpholine		100-74-3	< 0.1
Benzene, 1,3-diethyl-		141-93-5	< 0.1
DIETHANOLAMINE		111-42-2	< 0.1
Diethylbenzene		25340-17-4	< 0.1
ETHYLENEDIAMINE		107-15-3	< 0.1
Other components below reportable levels			70 - < 80

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

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Eye contact	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 if irritation develops and persists.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Most important symptoms/effects, acute and delayed	Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	IF exposed or concerned: Get medical advice/attention. 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.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Containers should be cooled with water to prevent vapor pressure build up.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	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.
Methods and materials for containment and cleaning up	Refer to attached safety data sheets and/or instructions for use. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Keep combustibles (wood, paper, oil, etc.) away from spilled material. 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. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Ground and bond containers when transferring material. Do not re-use empty containers. Do not breathe mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Should be handled in closed systems, if possible. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Level 1 Aerosol. Store locked up. Contents under pressure. Do not expose to heat or store at temperatures above 120°F/49°C as can may burst. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. 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
2-Butoxyethanol (CAS 111-76-2)	PEL	240 mg/m3 50 ppm
2-methoxyethanol (CAS 109-86-4)	PEL	80 mg/m3 25 ppm
4-ethylmorpholine (CAS 100-74-3)	PEL	94 mg/m3 20 ppm
ETHYLENEDIAMINE (CAS 107-15-3)	PEL	25 mg/m3 10 ppm
Morpholine (CAS 110-91-8)	PEL	70 mg/m3 20 ppm

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

Components	Type	Value
NAPHTHALENE (CAS 91-20-3)	PEL	50 mg/m3
		10 ppm
Petroleum naphtha (CAS 64742-94-5)	PEL	400 mg/m3
		100 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
1,2,3-trimethylbenzene (CAS 526-73-8)	TWA	25 ppm	
1,2,4-Trimethylbenzene (CAS 95-63-6)	TWA	25 ppm	
2-Butoxyethanol (CAS 111-76-2)	TWA	20 ppm	
2-methoxyethanol (CAS 109-86-4)	TWA	0.1 ppm	
4-ethylmorpholine (CAS 100-74-3)	TWA	5 ppm	
DIETHANOLAMINE (CAS 111-42-2)	TWA	1 mg/m3	Inhalable fraction and vapor.
ETHYLENEDIAMINE (CAS 107-15-3)	TWA	10 ppm	
Kerosine (petroleum) (CAS 8008-20-6)	TWA	200 mg/m3	Non-aerosol.
Morpholine (CAS 110-91-8)	TWA	20 ppm	
NAPHTHALENE (CAS 91-20-3)	TWA	10 ppm	
Petroleum naphtha (CAS 64742-94-5)	TWA	200 mg/m3	Non-aerosol.
Triéthanolamine (CAS 102-71-6)	TWA	5 mg/m3	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
1,2,3-trimethylbenzene (CAS 526-73-8)	TWA	125 mg/m3
		25 ppm
1,2,4-Trimethylbenzene (CAS 95-63-6)	TWA	125 mg/m3
		25 ppm
2-Butoxyethanol (CAS 111-76-2)	TWA	24 mg/m3
		5 ppm
2-methoxyethanol (CAS 109-86-4)	TWA	0.3 mg/m3
		0.1 ppm
4-ethylmorpholine (CAS 100-74-3)	TWA	23 mg/m3
		5 ppm
DIETHANOLAMINE (CAS 111-42-2)	TWA	15 mg/m3
		3 ppm
ETHYLENEDIAMINE (CAS 107-15-3)	TWA	25 mg/m3
		10 ppm
Kerosine (petroleum) (CAS 8008-20-6)	TWA	100 mg/m3
Morpholine (CAS 110-91-8)	STEL	105 mg/m3
		30 ppm
	TWA	70 mg/m3
		20 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
NAPHTHALENE (CAS 91-20-3)	STEL	75 mg/m3
	TWA	15 ppm
		50 mg/m3 10 ppm

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
1,4-diethylbenzene (CAS 105-05-5)	TWA	5 ppm
Benzene, 1,3-diethyl- (CAS 141-93-5)	TWA	5 ppm
Diethylbenzene (CAS 25340-17-4)	TWA	5 ppm

Biological limit values**ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
2-Butoxyethanol (CAS 111-76-2)	200 mg/g	Butoxyacetic acid (BAA), with hydrolysis	Creatinine in urine	*
2-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**

2-Butoxyethanol (CAS 111-76-2)	Can be absorbed through the skin.
2-methoxyethanol (CAS 109-86-4)	Can be absorbed through the skin.
4-ethylmorpholine (CAS 100-74-3)	Can be absorbed through the skin.
DIETHANOLAMINE (CAS 111-42-2)	Can be absorbed through the skin.
Morpholine (CAS 110-91-8)	Can be absorbed through the skin.
NAPHTHALENE (CAS 91-20-3)	Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

2-Butoxyethanol (CAS 111-76-2)	Skin designation applies.
2-methoxyethanol (CAS 109-86-4)	Skin designation applies.
4-ethylmorpholine (CAS 100-74-3)	Skin designation applies.
Morpholine (CAS 110-91-8)	Skin designation applies.

US - Tennessee OELs: Skin designation

2-Butoxyethanol (CAS 111-76-2)	Can be absorbed through the skin.
2-methoxyethanol (CAS 109-86-4)	Can be absorbed through the skin.
4-ethylmorpholine (CAS 100-74-3)	Can be absorbed through the skin.
Morpholine (CAS 110-91-8)	Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

2-methoxyethanol (CAS 109-86-4)	Can be absorbed through the skin.
4-ethylmorpholine (CAS 100-74-3)	Can be absorbed through the skin.
DIETHANOLAMINE (CAS 111-42-2)	Can be absorbed through the skin.
ETHYLENEDIAMINE (CAS 107-15-3)	Can be absorbed through the skin.
Kerosine (petroleum) (CAS 8008-20-6)	Can be absorbed through the skin.
Morpholine (CAS 110-91-8)	Can be absorbed through the skin.
NAPHTHALENE (CAS 91-20-3)	Can be absorbed through the skin.
Petroleum naphtha (CAS 64742-94-5)	Can be absorbed through the skin.

US NIOSH Pocket Guide to Chemical Hazards: Skin designation

2-Butoxyethanol (CAS 111-76-2)	Can be absorbed through the skin.
2-methoxyethanol (CAS 109-86-4)	Can be absorbed through the skin.
4-ethylmorpholine (CAS 100-74-3)	Can be absorbed through the skin.
Morpholine (CAS 110-91-8)	Can be absorbed through the skin.

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

2-Butoxyethanol (CAS 111-76-2)	Can be absorbed through the skin.
2-methoxyethanol (CAS 109-86-4)	Can be absorbed through the skin.
4-ethylmorpholine (CAS 100-74-3)	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. Eye wash fountain and emergency showers are recommended.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Chemical respirator with organic vapor cartridge and full facepiece.
Skin protection	
Hand protection	Wear appropriate chemical resistant gloves.
Other	Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
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.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Observe any medical surveillance requirements. When using do not smoke. 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.

9. Physical and chemical properties

Appearance	Liquid Hazy
Physical state	Liquid.
Form	Aerosol.
Color	Cream
Odor	Sweet. Aromatic.
Odor threshold	Not available.
pH	9 - 10
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	> 201.0 °F (> 93.9 °C) Tag Closed Cup
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	0.00001 hPa estimated
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	8.17 lbs/gal
Explosive properties	Not explosive.

Flame extension	0 in
Flammability (flash back)	No
Flammability class	Combustible IIIB estimated
Heat of combustion (NFPA 30B)	2.35 kJ/g estimated
Oxidizing properties	Not oxidizing.
Percent volatile	82.26 % estimated
Specific gravity	0.85
VOC	17.06 %

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause damage to organs through prolonged or repeated exposure by inhalation.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.
Ingestion	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

Symptoms related to the physical, chemical and toxicological characteristics Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity May be fatal if swallowed and enters airways.

Components	Species	Test Results
1,2,4-Trimethylbenzene (CAS 95-63-6)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 3160 mg/kg
2-Butoxyethanol (CAS 111-76-2)		
<u>Acute</u>		
Oral		
LD50	Rat	560 mg/kg
2-methoxyethanol (CAS 109-86-4)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	1280 mg/kg
4-ethylmorpholine (CAS 100-74-3)		
<u>Acute</u>		
Oral		
LD50	Rat	1490 - 2120 mg/kg
DIETHANOLAMINE (CAS 111-42-2)		
<u>Acute</u>		
Oral		
LD50	Rat	710 mg/kg

Components	Species	Test Results
ETHYLENEDIAMINE (CAS 107-15-3)		
Acute		
Dermal		
LD50	Rabbit	730 mg/kg
Oral		
LD50	Rat	500 mg/kg
Morpholine (CAS 110-91-8)		
Acute		
Oral		
LD50	Rat	1.05 g/kg
NAPHTHALENE (CAS 91-20-3)		
Acute		
Dermal		
LD50	Rabbit	> 2 g/kg
Oral		
LD50	Rat	490 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Causes serious eye irritation.
Respiratory or skin sensitization	
Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	Suspected of causing cancer.

IARC Monographs. Overall Evaluation of Carcinogenicity

2-Butoxyethanol (CAS 111-76-2)	3 Not classifiable as to carcinogenicity to humans.
DIETHANOLAMINE (CAS 111-42-2)	2B Possibly carcinogenic to humans.
Morpholine (CAS 110-91-8)	3 Not classifiable as to carcinogenicity to humans.
NAPHTHALENE (CAS 91-20-3)	2B Possibly carcinogenic to humans.
Triéthanolamine (CAS 102-71-6)	3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

NAPHTHALENE (CAS 91-20-3)	Reasonably Anticipated to be a Human Carcinogen.
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Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	May be fatal if swallowed and enters airways.
Chronic effects	May cause damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

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
1,2,4-Trimethylbenzene (CAS 95-63-6)		
Aquatic		
Fish	LC50	Fathead minnow (Pimephales promelas) 7.19 - 8.28 mg/l, 96 hours

Components	Species	Test Results
2-Butoxyethanol (CAS 111-76-2)		
Aquatic		
Fish LC50	Inland silverside (<i>Menidia beryllina</i>)	1250 mg/l, 96 hours
2-methoxyethanol (CAS 109-86-4)		
Aquatic		
Fish LC50	Bluegill (<i>Lepomis macrochirus</i>)	> 10000 mg/l, 96 hours
Benzene, 1,3-diethyl- (CAS 141-93-5)		
Aquatic		
Fish LC50	Fathead minnow (<i>Pimephales promelas</i>)	4.05 - 4.25 mg/l, 96 hours
DIETHANOLAMINE (CAS 111-42-2)		
Aquatic		
Crustacea EC50	Water flea (<i>Ceriodaphnia dubia</i>)	61.8 - 86.04 mg/l, 48 hours
Fish LC50	Fathead minnow (<i>Pimephales promelas</i>)	100 mg/l, 96 hours
ETHYLENEDIAMINE (CAS 107-15-3)		
Aquatic		
Fish LC50	Fathead minnow (<i>Pimephales promelas</i>)	98.6 - 131.6 mg/l, 96 hours
Morpholine (CAS 110-91-8)		
Aquatic		
Fish LC50	Zebra danio (<i>Danio rerio</i>)	> 1 mg/l, 96 hours
NAPHTHALENE (CAS 91-20-3)		
Aquatic		
Crustacea EC50	Water flea (<i>Daphnia magna</i>)	1.09 - 3.4 mg/l, 48 hours
Fish LC50	Pink salmon (<i>Oncorhynchus gorbuscha</i>)	1.11 - 1.68 mg/l, 96 hours
Nonylphenoethoxylate (CAS 9016-45-9)		
Aquatic		
Crustacea EC50	Water flea (<i>Daphnia magna</i>)	12.2 mg/l, 48 hours
Fish LC50	Bluegill (<i>Lepomis macrochirus</i>)	1 - 1.8 mg/l, 96 hours
Petroleum naphtha (CAS 64742-94-5)		
Aquatic		
Crustacea EC50	Water flea (<i>Daphnia pulex</i>)	2.7 - 5.1 mg/l, 48 hours
Fish LC50	Rainbow trout, donaldson trout (<i>Oncorhynchus mykiss</i>)	8.8 mg/l, 96 hours
		8.8 mg/l, 96 hours
Triéthanolamine (CAS 102-71-6)		
Aquatic		
Crustacea EC50	Water flea (<i>Ceriodaphnia dubia</i>)	565.2 - 658.3 mg/l, 48 hours
Fish LC50	Fathead minnow (<i>Pimephales promelas</i>)	10610 - 13010 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

1,4-diethylbenzene	4.45
2-Butoxyethanol	0.83
2-methoxyethanol	-0.77
Benzene, 1,3-diethyl-	4.44
DIETHANOLAMINE	-1.43
ETHYLENEDIAMINE	-2.04
Morpholine	-0.86
NAPHTHALENE	3.3
Tert-butylbenzene	4.11
Triéthanolamine	-1

Mobility in soil	No data available.
Other adverse effects	The product contains volatile organic compounds which have a photochemical ozone creation potential.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. 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. Do not re-use empty containers.

14. Transport information

DOT

UN number	Not available.
UN proper shipping name	Consumer commodity
Transport hazard class(es)	
Class	ORM-D
Subsidiary risk	-
Label(s)	None
Packing group	Not applicable.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Packaging exceptions	156, 306
Packaging non bulk	156, 306
Packaging bulk	None

IATA

UN number	ID8000
UN proper shipping name	Consumer commodity
Transport hazard class(es)	
Class	9
Subsidiary risk	-
Packing group	Not applicable.
Environmental hazards	No.
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	UN1950
UN proper shipping name	Aerosols
Transport hazard class(es)	
Class	2.2
Subsidiary risk	-
Packing group	Not applicable.
Environmental hazards	
Marine pollutant	No.
EmS	F-D, S-U
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.



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)

2-methoxyethanol (CAS 109-86-4) 1.0 % One-Time Export Notification only.
 Nonylphenoethoxylate (CAS 9016-45-9) 1.0 % One-Time Export Notification only.

TSCA Chemical Action Plans, Chemicals of Concern

Nonylphenoethoxylate (CAS 9016-45-9) Nonylphenol (NP) and Nonylphenol Ethoxylates (NPEs) Action Plan

CERCLA Hazardous Substance List (40 CFR 302.4)

2-Butoxyethanol (CAS 111-76-2) Listed.
 2-methoxyethanol (CAS 109-86-4) Listed.
 4-ethylmorpholine (CAS 100-74-3) Listed.
 DIETHANOLAMINE (CAS 111-42-2) Listed.
 ETHYLENEDIAMINE (CAS 107-15-3) Listed.
 Morpholine (CAS 110-91-8) Listed.
 NAPHTHALENE (CAS 91-20-3) Listed.
 Nonylphenoethoxylate (CAS 9016-45-9) Listed.

SARA 304 Emergency release notification

ETHYLENEDIAMINE (CAS 107-15-3) 5000 LBS

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
 Immediate Hazard - Yes
 Delayed Hazard - Yes
 Fire Hazard - No
 Pressure Hazard - No
 Reactivity Hazard - No

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

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
2-Butoxyethanol	111-76-2	< 1
NAPHTHALENE	91-20-3	< 0.3
Nonylphenoethoxylate	9016-45-9	1 - < 3

Other federal regulations

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

2-methoxyethanol (CAS 109-86-4)
 DIETHANOLAMINE (CAS 111-42-2)
 NAPHTHALENE (CAS 91-20-3)
 Nonylphenoethoxylate (CAS 9016-45-9)

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

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

DIETHANOLAMINE (CAS 111-42-2) Listed: June 22, 2012
NAPHTHALENE (CAS 91-20-3) Listed: April 19, 2002

US - California Proposition 65 - CRT: Listed date/Developmental toxin

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

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

2-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))

1,2,4-Trimethylbenzene (CAS 95-63-6)
2-Butoxyethanol (CAS 111-76-2)
2-methoxyethanol (CAS 109-86-4)
DIETHANOLAMINE (CAS 111-42-2)
ETHYLENEDIAMINE (CAS 107-15-3)
Kerosine (petroleum) (CAS 8008-20-6)
NAPHTHALENE (CAS 91-20-3)
Nonylphenoethoxylate (CAS 9016-45-9)
Petroleum Gases, Liquefied, Sweetened; Petroleum Gas; (CAS 68476-86-8)
Tert-butylbenzene (CAS 98-06-6)

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)	Yes
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
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*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 05-29-2015
Revision date 11-16-2016
Version # 03
HMIS® ratings Health: 3*
Flammability: 0
Physical hazard: 0
NFPA ratings Health: 2
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.