



Johnsen's Glass Cleaner

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 04/21/2014

Version:

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Trade name : Johnsen's Glass Cleaner
Product code : 4646

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Follow Label Directions
Use of the substance/mixture : Cleansing product

1.3. Details of the supplier of the safety data sheet

Technical Chemical Company
P.O. BOX 139
Cleburne, Texas 76033

1.4. Emergency telephone number

Emergency number : CHEMTREC 24 Hour 1-800-424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Acute Tox. 2 (Oral) H300
Eye Dam. 1 H318
Carc. 1A H350
Repr. 1B H360
STOT SE 1 H370

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :



GHS05

GHS06

GHS08

Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H300 - Fatal if swallowed
H318 - Causes serious eye damage
H350 - May cause cancer
H360 - May damage fertility or the unborn child
H370 - Causes damage to organs
H280 - Contains gas under pressure; may explode if heated

Precautionary statements (GHS-US) :

P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P264 - Wash ... thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313 - IF exposed or concerned: Get medical advice/attention
P310 - Immediately call a POISON CENTER or doctor/physician
P321 - Specific treatment (see ... on this label)
P330 - If swallowed, rinse mouth
P405 - Store locked up
P501 - Dispose of contents/container to ...
P251 - Pressurized container: Do not pierce or burn, even after use
P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C

2.3. Other hazards

Other hazards not contributing to the classification : Contains gas under pressure; may explode if heated.

2.4. Unknown acute toxicity (GHS-US)

No data available

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SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
DI - Water		85 - 95	Not classified
methanol	(CAS No) 67-56-1	1 - 5	Flam. Liq. 2, H225 Acute Tox. 1 (Oral), H300 Eye Dam. 1, H318 Repr. 1B, H360 STOT SE 1, H370
Petroleum gases, liquefied, sweetened	(CAS No) 68476-86-8	1 - 5	Flam. Liq. 1, H224
2-butoxyethanol	(CAS No) 111-76-2	< 1	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319
ethanol	(CAS No) 64-17-5	0.7785 - 0.865	Flam. Liq. 2, H225 Carc. 1A, H350
ammonium hydroxide, aqueous solution, conc=25%	(CAS No) 1336-21-6	< 1	Skin Corr. 1B, H314 Aquatic Acute 1, H400
2-aminoethanol	(CAS No) 141-43-5	<= 0.05593	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Skin Corr. 1A, H314
methyl isobutyl ketone	(CAS No) 108-10-1	0.00865 - 0.04325	Flam. Liq. 2, H225 Acute Tox. 3 (Inhalation:gas), H331 Eye Irrit. 2A, H319 STOT SE 3, H335
PROPRIETARY INHIBITOR PACKAGE	(CAS No) Proprietary	<= 0.01974	Not classified
polyethylene glycol 200-600	(CAS No) 25322-68-3	<= 0.00144	Not classified
NONYL NONOXYNOL-5	(CAS No) 9014-93-1	<= 0.00096	Not classified

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention. Call a POISON CENTER or doctor/physician. Specific treatment (see ... on this label).
First-aid measures after inhalation	: Remove to fresh air and keep at rest in a position comfortable for breathing.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
First-aid measures after eye contact	: 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.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Fatal if swallowed. Immediately call a POISON CENTER or doctor/physician. Specific treatment (see ... on this label).

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

Symptoms/injuries	: May damage fertility or the unborn child. Causes damage to organs.
Symptoms/injuries after inhalation	: May cause cancer by inhalation.
Symptoms/injuries after eye contact	: Causes serious eye damage.
Symptoms/injuries after ingestion	: Fatal if swallowed.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.

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Other information : NFPA Aerosol Level 1.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Gloves. Safety glasses.
Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection. Avoid breathing dust/fume/gas/mist/vapors/spray.
Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Dam up the liquid spill.
Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Pressurized container: Do not pierce or burn, even after use.
Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray.
Hygiene measures : Do not eat, drink or smoke when using this product. Wash ... thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use.
Incompatible products : Strong bases. Strong acids.
Incompatible materials : Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

Follow Label Directions.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

methanol (67-56-1)		
USA ACGIH	ACGIH TWA (ppm)	200 ppm
USA ACGIH	ACGIH STEL (ppm)	200 ppm
methyl isobutyl ketone (108-10-1)		
USA ACGIH	ACGIH TWA (ppm)	20 ppm
USA ACGIH	ACGIH STEL (ppm)	20 ppm
2-butoxyethanol (111-76-2)		
USA ACGIH	ACGIH TWA (ppm)	20 ppm
USA ACGIH	ACGIH STEL (ppm)	20 ppm
ammonium hydroxide, aqueous solution, conc=25% (1336-21-6)		
USA ACGIH	ACGIH TWA (ppm)	25 ppm
USA ACGIH	ACGIH STEL (ppm)	25 ppm
2-aminoethanol (141-43-5)		
USA ACGIH	ACGIH TWA (ppm)	3 ppm
USA ACGIH	ACGIH STEL (ppm)	3 ppm

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8.2. Exposure controls

Personal protective equipment : Gloves. Safety glasses. Avoid all unnecessary exposure.



Hand protection : Wear protective gloves.
Eye protection : Chemical goggles or safety glasses.
Respiratory protection : Where exposure through inhalation may occur from use, respiratory protection equipment is recommended.
Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : Colorless to pale yellow liquid.
Color : Colourless to light yellow.
Odor : slight. Alcohol odour.
Odor threshold : No data available
pH : 9
Relative evaporation rate (butyl acetate=1) : No data available
Melting point : No data available
Freezing point : No data available
Boiling point : No data available
Flash point : -96.23 °C (Propellant)
Self ignition temperature : 363 °C (Ethanol)
Decomposition temperature : No data available
Flammability (solid, gas) : No data available
Vapor pressure : No data available
Relative vapor density at 20 °C : No data available
Relative density : 0.98 @ 60F
Solubility : Soluble in water.
Log Pow : No data available
Log Kow : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available
Explosive properties : No data available
Oxidizing properties : No data available
Explosive limits : No data available

9.2. Other information

VOC content : 9.76 %

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Fatal if swallowed.

methanol (67-56-1)	
LD50 oral rat	> 5000 mg/kg (1187-2769 mg/kg bodyweight; Rat; Rat)
LD50 dermal rabbit	15800 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	85 mg/l/4h (Rat)
LC50 inhalation rat (ppm)	64000 ppm/4h (Rat)

methyl isobutyl ketone (108-10-1)	
LD50 oral rat	2080 mg/kg (Rat; Experimental value,Rat; Experimental value)
LD50 dermal rat	>= 2000 mg/kg body weight (Rat; Experimental value,Rat; Experimental value)
LD50 dermal rabbit	> 16000 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	8.2- 16.4,Rat; Experimental value,Rat; Experimental value
LC50 inhalation rat (ppm)	2000 ppm/4h (Rat; Experimental value,Rat; Experimental value)

ethanol (64-17-5)	
LD50 oral rat	10740 mg/kg body weight (Rat; Experimental value,Rat; Experimental value)
LD50 dermal rabbit	> 16000 mg/kg (Rabbit)

polyethylene glycol 200-600 (25322-68-3)	
LD50 oral rat	> 15000 mg/kg (Rat)
LD50 dermal rabbit	> 20000 mg/kg (Rabbit)

2-butoxyethanol (111-76-2)	
LD50 oral rat	530 mg/kg (1746 mg/kg bodyweight; Rat; Rat; Experimental value)
LD50 dermal rat	> 2000 mg/kg body weight (Rat; Experimental value,Rat; Experimental value)
LD50 dermal rabbit	435 mg/kg (435 mg/kg bodyweight; Rabbit; Rabbit; Experimental value,435 mg/kg bodyweight; Rabbit; Rabbit; Experimental value)
LC50 inhalation rat (mg/l)	2.17 mg/l/4h (2.35 mg/l/4h; Rat; Rat; Experimental value; Experimental value,2.35 mg/l/4h; Rat; Rat; Experimental value; Experimental value)
LC50 inhalation rat (ppm)	450-486,Rat

2-aminoethanol (141-43-5)	
LD50 oral rat	1720 mg/kg (Rat)
LD50 dermal rabbit	1018 mg/kg (Rabbit)

Skin corrosion/irritation : Not classified
pH: 9

Serious eye damage/irritation : Causes serious eye damage.
pH: 9

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classifiedBased on available data, the classification criteria are not met

Carcinogenicity : May cause cancer.

ethanol (64-17-5)	
IARC group	1

2-butoxyethanol (111-76-2)	
IARC group	3

Reproductive toxicity : May damage fertility or the unborn child.Based on available data, the classification criteria are not met

Specific target organ toxicity (single exposure) : Causes damage to organs.

Specific target organ toxicity (repeated exposure) : Not classifiedBased on available data, the classification criteria are not met

Aspiration hazard : Not classifiedBased on available data, the classification criteria are not met

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met. Fatal if swallowed.

Symptoms/injuries after inhalation : May cause cancer by inhalation.

Symptoms/injuries after eye contact : Causes serious eye damage.

Symptoms/injuries after ingestion : Fatal if swallowed.

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SECTION 12: Ecological information

12.1. Toxicity

methanol (67-56-1)	
LC50 fish 1	15400 mg/l (96 h; <i>Lepomis macrochirus</i> ; Lethal)
EC50 Daphnia 1	> 10000 mg/l (48 h; <i>Daphnia magna</i> ; Lethal)
LC50 fish 2	10800 mg/l 96 h; <i>Salmo gairdneri</i> (<i>Oncorhynchus mykiss</i>)
EC50 Daphnia 2	24500 mg/l (48 h; <i>Daphnia magna</i>)
Threshold limit other aquatic organisms 1	6600 mg/l (16 h; <i>Pseudomonas putida</i>)
Threshold limit algae 1	530 mg/l (192 h; <i>Microcystis aeruginosa</i>)
Threshold limit algae 2	8000 mg/l (168 h; <i>Scenedesmus quadricauda</i>)
methyl isobutyl ketone (108-10-1)	
LC50 fish 1	505 mg/l (96 h; <i>Pimephales promelas</i> ; GLP)
EC50 Daphnia 1	170 mg/l (48 h; <i>Daphnia magna</i> ; Static system)
EC50 other aquatic organisms 1	400 mg/l (96 h; <i>Selenastrum capricornutum</i> ; Growth rate)
LC50 fish 2	600 mg/l 96 h; <i>Salmo gairdneri</i> (<i>Oncorhynchus mykiss</i>)
EC50 Daphnia 2	> 1000 mg/l (48 h; <i>Daphnia magna</i> ; GLP)
Threshold limit algae 1	136 mg/l (<i>Microcystis aeruginosa</i>)
Threshold limit algae 2	725 mg/l (8 days; <i>Scenedesmus quadricauda</i> ; Nominal concentration)
ethanol (64-17-5)	
LC50 fish 1	14200 mg/l (96 h; <i>Pimephales promelas</i> ; Nominal concentration)
EC50 Daphnia 1	9300 mg/l (48 h; <i>Daphnia magna</i>)
LC50 fish 2	13000 mg/l 96 h; <i>Salmo gairdneri</i> (<i>Oncorhynchus mykiss</i>)
EC50 Daphnia 2	10800 mg/l (24 h; <i>Daphnia magna</i>)
Threshold limit other aquatic organisms 1	65 mg/l (72 h; Protozoa)
Threshold limit algae 1	1450 mg/l (192 h; <i>Microcystis aeruginosa</i> ; Growth rate)
Threshold limit algae 2	5000 mg/l (168 h; <i>Scenedesmus quadricauda</i> ; Growth rate)
polyethylene glycol 200-600 (25322-68-3)	
LC50 fish 1	> 1000 mg/l (96 h; Pisces)
LC50 other aquatic organisms 1	> 1000 mg/l (96 h)
LC50 fish 2	> 5000 mg/l (24 h; <i>Carassius auratus</i>)
Threshold limit other aquatic organisms 1	<= 100 mg/l (96 h; Plankton)
Threshold limit other aquatic organisms 2	> 1000 mg/l
Threshold limit algae 2	500 mg/l (720 h; Algae; No effect)
2-butoxyethanol (111-76-2)	
LC50 fish 1	116 ppm (96 h; <i>Cyprinodon variegatus</i> ; Nominal concentration)
EC50 Daphnia 1	1700 mg/l (48 h; <i>Daphnia sp.</i> ; Nominal concentration)
LC50 fish 2	1341 ppm (96 h; <i>Lepomis macrochirus</i>)
EC50 Daphnia 2	1720 mg/l (24 h; <i>Daphnia magna</i>)
TLM fish 1	100 - 1000,96 h; Pisces
TLM other aquatic organisms 1	100 - 1000,96 h
Threshold limit algae 1	900 mg/l (168 h; <i>Scenedesmus quadricauda</i>)
Threshold limit algae 2	35 mg/l (192 h; <i>Microcystis aeruginosa</i>)
ammonium hydroxide, aqueous solution, conc=25% (1336-21-6)	
LC50 fish 1	0.16 - 1.1 mg/l (96 h; <i>Salmo gairdneri</i> (<i>Oncorhynchus mykiss</i>); Solution >=50%)
LC50 other aquatic organisms 1	1 - 10 mg/l (96 h; Solution >=50%)
LC50 fish 2	0.75 - 3.4 mg/l (96 h; <i>Pimephales promelas</i> ; Solution >=50%)
TLM fish 1	15 - 18.5,48 h; <i>Leuciscus idus</i>
TLM fish 2	34 ppm 48 h; <i>Salmo gairdneri</i> (<i>Oncorhynchus mykiss</i>)
Threshold limit other aquatic organisms 1	1 - 10,96 h; Solution >=50%
2-aminoethanol (141-43-5)	
LC50 fish 1	150 mg/l 96 h; <i>Salmo gairdneri</i> (<i>Oncorhynchus mykiss</i>)
EC50 Daphnia 1	140 mg/l (24 h; <i>Daphnia magna</i>)
LC50 fish 2	329.16 mg/l (96 h; <i>Lepomis macrochirus</i>)
TLM fish 1	100 - 1000,96 h; Pisces
TLM other aquatic organisms 1	100 - 1000,96 h
Threshold limit algae 1	0.97 mg/l (192 h; <i>Scenedesmus quadricauda</i> ; Inhibitory)
Threshold limit algae 2	35 mg/l (72 h; Algae)

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12.2. Persistence and degradability

Johnsen's Glass Cleaner	
Persistence and degradability	Not established.

Petroleum gases, liquefied, sweetened (68476-86-8)	
Persistence and degradability	Not established.

methanol (67-56-1)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil.
Biochemical oxygen demand (BOD)	0.6 - 1.12 g O ₂ /g substance
Chemical oxygen demand (COD)	1.42 g O ₂ /g substance
ThOD	1.5 g O ₂ /g substance
BOD (% of ThOD)	0.8 % ThOD

methyl isobutyl ketone (108-10-1)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Low potential for adsorption in soil. Photolysis in the air.
Biochemical oxygen demand (BOD)	2.06 g O ₂ /g substance
Chemical oxygen demand (COD)	2.16 g O ₂ /g substance
ThOD	2.72 g O ₂ /g substance
BOD (% of ThOD)	0.76 % ThOD

ethanol (64-17-5)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. No (test)data on mobility of the substance available.
Biochemical oxygen demand (BOD)	0.8 - 0.967 g O ₂ /g substance
Chemical oxygen demand (COD)	1.70 g O ₂ /g substance
ThOD	2.10 g O ₂ /g substance
BOD (% of ThOD)	0.43 % ThOD

polyethylene glycol 200-600 (25322-68-3)	
Persistence and degradability	Biodegradability in water: no data available.

NONYL NONOXYNOL-5 (9014-93-1)	
Persistence and degradability	Not established.

2-butoxyethanol (111-76-2)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Photodegradation in the air.
Biochemical oxygen demand (BOD)	0.71 g O ₂ /g substance
Chemical oxygen demand (COD)	2.20 g O ₂ /g substance
ThOD	2.305 g O ₂ /g substance
BOD (% of ThOD)	0.31 % ThOD

ammonium hydroxide, aqueous solution, conc=25% (1336-21-6)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. No (test)data on mobility of the components of the mixture available. Ozonation in the air.

2-aminoethanol (141-43-5)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil.
Biochemical oxygen demand (BOD)	0.80 g O ₂ /g substance
Chemical oxygen demand (COD)	1.34 g O ₂ /g substance
ThOD	2.49 g O ₂ /g substance
BOD (% of ThOD)	0.32 % ThOD

PROPRIETARY INHIBITOR PACKAGE (Proprietary)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Johnsen's Glass Cleaner	
Bioaccumulative potential	Not established.

Petroleum gases, liquefied, sweetened (68476-86-8)	
Bioaccumulative potential	Not established.

methanol (67-56-1)	
BCF fish 1	< 10 (Leuciscus idus)
Log Pow	-0.77 (Experimental value; Other, Experimental value; Other)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

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methyl isobutyl ketone (108-10-1)	
BCF fish 1	2 - 5 (Pisces)
Log Pow	1.9 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

ethanol (64-17-5)	
Log Pow	-0.31 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

polyethylene glycol 200-600 (25322-68-3)	
Log Pow	-1.2
Bioaccumulative potential	Bioaccumulation: not applicable.

NONYL NONOXYNOL-5 (9014-93-1)	
Bioaccumulative potential	Not established.

2-butoxyethanol (111-76-2)	
Log Pow	0.81 (Experimental value; 25 °C, Experimental value; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

ammonium hydroxide, aqueous solution, conc=25% (1336-21-6)	
Log Pow	-1.3
Bioaccumulative potential	Bioaccumulation: not applicable.

2-aminoethanol (141-43-5)	
Log Pow	-1.91
Bioaccumulative potential	Bioaccumulation: not applicable.

PROPRIETARY INHIBITOR PACKAGE (Proprietary)	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

methanol (67-56-1)	
Surface tension	0.023 N/m (20 °C)

methyl isobutyl ketone (108-10-1)	
Surface tension	0.024 N/m (20 °C)

ethanol (64-17-5)	
Surface tension	0.022 N/m (20 °C)

2-butoxyethanol (111-76-2)	
Surface tension	0.027 N/m (25 °C)

2-aminoethanol (141-43-5)	
Surface tension	0.050 N/m

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to ... Container under pressure. Do not drill or burn even after use.
Ecology - waste materials : Avoid release to the environment. Hazardous waste due to toxicity.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

US DOT (ground): UN1950, Aerosols, 2.2, Limited Quantity
ICAO/IATA (air): UN1950, Aerosols, non-flammable, (each not exceeding 1 L capacity), 2.2, Limited Quantity
IMO/IMDG (water): UN1950, Aerosols, non-flammable, (each not exceeding 1 L capacity), 2.2, Limited Quantity

14.2. UN proper shipping name

DOT Proper Shipping Name : Aerosols
non-flammable, (each not exceeding 1 L capacity)

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Department of Transportation (DOT) Hazard Classes : 2.2 - Class 2.2 - Non-flammable compressed gas 49 CFR 173.115
Hazard labels (DOT) : 2.2 - Non-flammable gas



DOT Packaging Exceptions (49 CFR 173.xxx) : 306
DOT Packaging Non Bulk (49 CFR 173.xxx) : None
DOT Packaging Bulk (49 CFR 173.xxx) : None

14.3. Additional information

Other information : No supplementary information available.

Overland transport

No additional information available

Transport by sea

DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
DOT Vessel Stowage Other : 48 - Stow "away from" sources of heat, 87 - Stow "separated from" Class 1 (explosives) except Division 1.4, 1.26 - Segregation same as for Class 9, miscellaneous hazardous materials

Air transport

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 75 kg
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 150 kg

SECTION 15: Regulatory information

15.1. US Federal regulations

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SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard
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Petroleum gases, liquefied, sweetened (68476-86-8)

SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Fire hazard Sudden release of pressure hazard
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methanol (67-56-1)

Listed on SARA Section 302 (Specific toxic chemical listings)

SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard Fire hazard Immediate (acute) health hazard
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2-aminoethanol (141-43-5)

SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
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15.2. International regulations

CANADA

methanol (67-56-1)

WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects
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EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification according to Directive 67/548/EEC or 1999/45/EC

Carc.Cat.1; R45
Muta.Cat.2; R46
F+; R12

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according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Xn; R20/21/22

Xn; R68/20/21/22

Full text of R-phrases: see section 16

15.2.2. National regulations

No additional information available

15.3. US State regulations

No additional information available

SECTION 16: Other information

Indication of changes : Revision - See : *

Other information : None.

Full text of H-phrases: see section 16:

Acute Tox. 1 (Oral)	Acute toxicity (oral) Category 1
Acute Tox. 2 (Oral)	Acute toxicity (oral) Category 2
Acute Tox. 3 (Dermal)	Acute toxicity (dermal) Category 3
Acute Tox. 3 (Inhalation:gas)	Acute toxicity (inhalation:gas) Category 3
Acute Tox. 4 (Dermal)	Acute toxicity (dermal) Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Carc. 1A	Carcinogenicity Category 1A
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Liq. 1	Flammable liquids Category 1
Flam. Liq. 2	Flammable liquids Category 2
Flam. Liq. 4	Flammable liquids Category 4
Repr. 1B	Reproductive toxicity Category 1B
Skin Corr. 1A	Skin corrosion/irritation Category 1A
Skin Corr. 1B	Skin corrosion/irritation Category 1B
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT SE 1	Specific target organ toxicity (single exposure) Category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H224	Extremely flammable liquid and vapor
H225	Highly flammable liquid and vapor
H227	Combustible liquid
H300	Fatal if swallowed
H302	Harmful if swallowed
H311	Toxic in contact with skin
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H331	Toxic if inhaled
H332	Harmful if inhaled
H335	May cause respiratory irritation
H350	May cause cancer
H360	May damage fertility or the unborn child
H370	Causes damage to organs
H400	Very toxic to aquatic life

NFPA health hazard

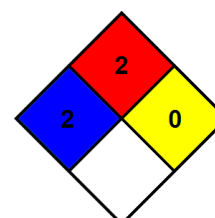
: 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

NFPA fire hazard

: 2 - Must be moderately heated or exposed to relatively high temperature before ignition can occur.

NFPA reactivity

: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



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HMIS III Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur
Flammability : 2 Moderate Hazard
Physical : 2 Moderate Hazard
Personal Protection : B

SDS US (GHS HazCom 2012) - Technical Chemical

The Supplier identified in Section 1 of this MSDS has evaluated this product and certifies it to be labeled and packaged in compliance with the applicable provisions of the Federal Hazardous Substance Act as stated in 16 CFR 1500 and enforced by the Consumer Product Safety Commission, and where applicable the products that require Child Resistant Closures are packaged in accordance with the Poison Prevention Packaging Act as stated in 16 CFR 1700 and enforced by the Consumer Product Safety Commission. All closures have been tested in accordance with the latest protocols. No other testing is required to certify compliance with the above. The date of manufacture is stamped on the product