SI-1135

Safety Data Sheet

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SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : SI-1135

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

Smart Chemical Solutions, LLC
3505 Olsen Blvd
Suite 201
Amarillo, TX 79109
T (806) 367-8031

1.4. Emergency telephone number

Emergency number : CHEMTREC 1-800-424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Flammable liquids Category 2	H225	Highly flammable liquid and vapor
Acute toxicity (oral) Category 4	H302	Harmful if swallowed
Acute toxicity (dermal) Category 3	H311	Toxic in contact with skin
Acute toxicity (inhalation:dust,mist) Category 3	H331	Toxic if inhaled
Skin corrosion/irritation Category 1	H314	Causes severe skin burns and eye damage
Serious eye damage/eye irritation Category 1	H318	Causes serious eye damage
Skin sensitization, Category 1	H317	May cause an allergic skin reaction
Hazardous to the aquatic environment - Acute Hazard Category 1	H400	Very toxic to aquatic life
Hazardous to the aquatic environment - Chronic Hazard Category 3	H412	Harmful to aquatic life with long lasting effects

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :

Signal word (GHS US) : Danger
Hazard statements (GHS US) : H225 - Highly flammable liquid and vapor
H302 - Harmful if swallowed
H311+H331 - Toxic in contact with skin or if inhaled
H314 - Causes severe skin burns and eye damage
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H400 - Very toxic to aquatic life
H412 - Harmful to aquatic life with long lasting effects
Precautionary statements (GHS US) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking.
P233 - Keep container tightly closed.
P240 - Ground/Bond container and receiving equipment.
P241 - Use explosion-proof electrical/ventilating/lighting equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
P261 - Avoid breathing dust, fume, gas, mist, vapors, spray.
P264 - Wash hands, forearms and face thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P272 - Contaminated work clothing must not be allowed out of the workplace.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312 - If swallowed: Call a poison center or doctor if you feel unwell.
P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting.
P302+P352 - If on skin: Wash with plenty of water.
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P330 - Rinse mouth.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P361+P364 - Take off immediately all contaminated clothing and wash it before reuse.
P363 - Wash contaminated clothing before reuse.
P370+P378 - In case of fire: Use media other than water to extinguish.
P391 - Collect spillage.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

5% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)
9.8% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)
5% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Methanol	CAS-No.: 67-56-1	20 – 40	Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 STOT SE 1, H370

Name	Product identifier	%	GHS US classification
Tetrakis (Hydroxymethyl) Phosphonium Sulfate Solution	CAS-No.: 55566-30-8	10 – 30	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 3 (Inhalation), H331 Acute Tox. 3 (Inhalation:dust,mist), H331 Eye Dam. 1, H318 Skin Sens. 1A, H317 STOT RE 1, H372 Aquatic Acute 1, H400 Aquatic Chronic 2, H411
Amino Methylene Phosponic Acid Salts	CAS-No.: 7647-01-0	1 – 10	Skin Corr. 1, H314 Eye Dam. 1, H318
Ethanolamine	CAS-No.: 141-43-5	0.99 – 9.9	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Skin Corr. 1, H314 Eye Dam. 1, H318 Aquatic Acute 2, H401
4-nonylphenyl-omega-hydroxypoly(oxy-1,2-), branched	CAS-No.: 127087-87-0	1 – 5	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Aquatic Acute 3, H402 Aquatic Chronic 3, H412
Ammonium Chloride	CAS-No.: 12125-02-9	1 – 5	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:dust,mist), H332 Eye Irrit. 2, H319

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Call a physician immediately.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a doctor.

First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Call a physician immediately.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.

First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Call a physician immediately.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after skin contact : Burns. May cause an allergic skin reaction.

Symptoms/effects after eye contact : Serious damage to eyes.

Symptoms/effects after ingestion : Burns.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

Fire hazard : Highly flammable liquid and vapor.
Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin, eyes and clothing.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.
Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapors may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Use only outdoors or in a well-ventilated area.
Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment.

Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Ethanolamine (141-43-5)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Ethanolamine
ACGIH OEL TWA [ppm]	3 ppm
ACGIH OEL STEL [ppm]	6 ppm
Remark (ACGIH)	TLV® Basis: Eye & skin irr
Regulatory reference	ACGIH 2022
USA - OSHA - Occupational Exposure Limits	
Local name	Ethanolamine
OSHA PEL TWA [1]	6 mg/m³
OSHA PEL TWA [2]	3 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

Ammonium Chloride (12125-02-9)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Ammonium chloride, fume
ACGIH OEL TWA	10 mg/m³
ACGIH OEL STEL	20 mg/m³
Remark (ACGIH)	TLV® Basis: Eye & URT irr
Regulatory reference	ACGIH 2022

Tetrakis (Hydroxymethyl) Phosphonium Sulfate Solution (55566-30-8)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Tetrakis (hydroxymethyl) phosphonium sulfate
ACGIH OEL TWA	2 mg/m³
Remark (ACGIH)	TLV® Basis: Liver dam. Notations: DSEN; A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2022

Methanol (67-56-1)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Methanol
ACGIH OEL TWA [ppm]	200 ppm
ACGIH OEL STEL [ppm]	250 ppm
Remark (ACGIH)	TLV® Basis: Headache; eye dam; dizziness; nausea. Notations: Skin; BEI
Regulatory reference	ACGIH 2022

Methanol (67-56-1)	
USA - ACGIH - Biological Exposure Indices	
Local name	METHANOL
BEI	15 mg/l Parameter: Methanol - Medium: urine - Sampling time: End of shift - Notations: B, Ns
Regulatory reference	ACGIH 2022
USA - OSHA - Occupational Exposure Limits	
Local name	Methyl alcohol
OSHA PEL TWA [1]	260 mg/m³
OSHA PEL TWA [2]	200 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:
Protective gloves

Eye protection:
Safety glasses

Skin and body protection:
Wear suitable protective clothing

Respiratory protection:
Wear respiratory protection.

Personal protective equipment symbol(s):

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : Clear.
Color : Colorless
Odor : Mild
Odor threshold : No data available
pH : 3 – 4
Melting point : Not applicable
Freezing point : < -20
Boiling point : No data available
Flash point : 72 °F
Relative evaporation rate (butyl acetate=1) : No data available

Flammability (solid, gas)	:	Not applicable.
Vapor pressure	:	No data available
Relative vapor density at 20 °C	:	No data available
Relative density	:	No data available
Density	:	8.287 – 8.587
Solubility	:	No data available
Partition coefficient n-octanol/water (Log Pow)	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosion limits	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable liquid and vapor.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	:	Harmful if swallowed.
Acute toxicity (dermal)	:	Toxic in contact with skin.
Acute toxicity (inhalation)	:	Toxic if inhaled.

SI-1135	
ATE US (oral)	1432.469 mg/kg body weight
ATE US (dermal)	767.856 mg/kg body weight
ATE US (dust, mist)	0.939 mg/l/4h

SI-1135	
Unknown acute toxicity (GHS US)	5% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral) 9.8% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 5% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

Ethanolamine (141-43-5)	
LD50 oral rat	1089 mg/kg Source: OECD SIDS
LD50 dermal rabbit	2504 mg/kg Source: OECD SIDS
LC50 Inhalation - Rat (Vapours)	> 1487 mg/l Source: ECHA
ATE US (oral)	1089 mg/kg body weight
ATE US (dermal)	2504 mg/kg body weight
ATE US (gases)	4500 ppmV/4h
ATE US (vapors)	11 mg/l/4h
ATE US (dust, mist)	1.5 mg/l/4h

4-nonylphenyl-omega-hydroxypoly(oxy-1,2-), branched (127087-87-0)	
LD50 oral rat	1890 mg/kg body weight (Rat, Male / female, Experimental value, Oral)
LD50 oral	657 mg/kg body weight (Rabbit, Male / female, Experimental value, Oral)
LC50 Inhalation - Rat (Dust/Mist)	0.52 – 1.03 mg/l
ATE US (oral)	657 mg/kg body weight
ATE US (dust, mist)	0.52 mg/l/4h

Ammonium Chloride (12125-02-9)	
LD50 oral rat	1410 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg body weight (EU Method B.3: Acute toxicity (dermal), 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 3.6 mg/l (4 h, Rat, Male, Read-across, Inhalation (dust))
ATE US (oral)	1410 mg/kg body weight
ATE US (dust, mist)	1.5 mg/l/4h

Tetrakis (Hydroxymethyl) Phosphonium Sulfate Solution (55566-30-8)	
LD50 oral rat	575 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 1500 mg/kg body weight Animal: rat, Guideline: EPA OPP 81-2 (Acute Dermal Toxicity), Guideline: EPA OPPTS 870.1200 (Acute Dermal Toxicity), Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: other:
LC50 Inhalation - Rat	0.59 mg/l (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol))
LC50 Inhalation - Rat (Dust/Mist)	0.591 mg/l Source: ECHA
ATE US (oral)	575 mg/kg body weight
ATE US (dermal)	1100 mg/kg body weight
ATE US (gases)	700 ppmV/4h
ATE US (vapors)	0.59 mg/l/4h

Tetrakis (Hydroxymethyl) Phosphonium Sulfate Solution (55566-30-8)	
ATE US (dust, mist)	0.59 mg/l/4h

Methanol (67-56-1)	
LD50 oral rat	1187 – 2769 mg/kg body weight (BASF test, Rat, Male / female, Experimental value, Aqueous solution, Oral, 7 day(s))
LD50 dermal rabbit	300 mg/kg Source: ECHA
LC50 Inhalation - Rat	128 mg/l air (BASF test, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours))
ATE US (oral)	1187 mg/kg body weight
ATE US (dermal)	300 mg/kg body weight
ATE US (gases)	700 ppmV/4h
ATE US (vapors)	3 mg/l/4h
ATE US (dust, mist)	0.5 mg/l/4h

Skin corrosion/irritation : Causes severe skin burns.
pH: 3 – 4

Ethanolamine (141-43-5)	
pH	12.1 Source: ECHA

4-nonylphenyl-omega-hydroxypoly(oxy-1,2-), branched (127087-87-0)	
pH	6.3 (1 %)

Ammonium Chloride (12125-02-9)	
pH	5 (10 %, 25 °C)

Amino Methylene Phosponic Acid Salts (7647-01-0)	
pH	0.1 (3.65 %)

Methanol (67-56-1)	
pH	No data available in the literature

Serious eye damage/irritation : Causes serious eye damage.
pH: 3 – 4

Ethanolamine (141-43-5)	
pH	12.1 Source: ECHA

4-nonylphenyl-omega-hydroxypoly(oxy-1,2-), branched (127087-87-0)	
pH	6.3 (1 %)

Ammonium Chloride (12125-02-9)	
pH	5 (10 %, 25 °C)

Amino Methylene Phosponic Acid Salts (7647-01-0)	
pH	0.1 (3.65 %)

Methanol (67-56-1)	
pH	No data available in the literature

Respiratory or skin sensitization : May cause an allergic skin reaction.
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

Tetrakis (Hydroxymethyl) Phosphonium Sulfate Solution (55566-30-8)	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified
STOT-single exposure : Causes damage to organs.

Methanol (67-56-1)	
STOT-single exposure	Causes damage to organs.

STOT-repeated exposure : Causes damage to organs through prolonged or repeated exposure.

Ammonium Chloride (12125-02-9)	
NOAEL (oral,rat,90 days)	≈ 1695.7 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)

Tetrakis (Hydroxymethyl) Phosphonium Sulfate Solution (55566-30-8)	
LOAEL (oral,rat,90 days)	22.65 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents)
NOAEL (oral,rat,90 days)	4.53 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents)
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified
Viscosity, kinematic : No data available

Ammonium Chloride (12125-02-9)	
Viscosity, kinematic	Not applicable (solid)

Symptoms/effects after skin contact : Burns. May cause an allergic skin reaction.
Symptoms/effects after eye contact : Serious damage to eyes.
Symptoms/effects after ingestion : Burns.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Very toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Ethanolamine (141-43-5)	
LC50 - Fish [1]	170 mg/l Source: OECD SIDS
EC50 - Crustacea [1]	32.6 mg/l
ErC50 algae	2.1 mg/l Source: ECHA

4-nonylphenyl-omega-hydroxypoly(oxy-1,2-), branched (127087-87-0)	
LC50 - Fish [1]	11.6 mg/l (48 h, Oryzias latipes, Static system, Fresh water, Experimental value)
EC50 - Crustacea [1]	14 mg/l (48 h, Daphnia magna, Static renewal, Fresh water, Experimental value)
EC50 72h - Algae [1]	1948545 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 96h - Algae [1]	12 mg/l (Selenastrum capricornutum, Static system, Fresh water, Experimental value, Nominal concentration)

Ammonium Chloride (12125-02-9)	
LC50 - Fish [1]	209 mg/l (APHA, 96 h, Cyprinus carpio, Semi-static system, Experimental value)

Ammonium Chloride (12125-02-9)	
EC50 - Crustacea [1]	101 mg/l (ASTM E729-80, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Lethal)
ErC50 algae	1300 mg/l (5 day(s), Chlorella vulgaris, Static system, Fresh water, Experimental value, Nominal concentration)
Tetrakis (Hydroxymethyl) Phosphonium Sulfate Solution (55566-30-8)	
LC50 - Fish [1]	0.45 mg/l Source: ECHA
EC50 - Crustacea [1]	18 mg/l Source: ECOTOX
LC50 - Fish [2]	71 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [2]	11.3 mg/l Test organisms (species): Daphnia magna
EC50 96h - Algae [1]	0.652 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [2]	0.492 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
ErC50 algae	0.652 mg/l (OECD 201: Alga, Growth Inhibition Test, 96 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration)
Methanol (67-56-1)	
LC50 - Fish [1]	15400 mg/l (EPA 660/3 - 75/009, 96 h, Lepomis macrochirus, Flow-through system, Fresh water, Experimental value, Lethal)
EC50 - Crustacea [1]	18260 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 96 h, Daphnia magna, Semi-static system, Fresh water, Experimental value, Locomotor effect)
EC50 96h - Algae [1]	22000 mg/l (OECD 201: Alga, Growth Inhibition Test, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Growth rate)

12.2. Persistence and degradability

4-nonylphenyl-omega-hydroxypoly(oxy-1,2-), branched (127087-87-0)	
Persistence and degradability	Not readily biodegradable in water. Biodegradable in water.
Ammonium Chloride (12125-02-9)	
Persistence and degradability	Biodegradability: not applicable.
Amino Methylene Phosponic Acid Salts (7647-01-0)	
Persistence and degradability	Biodegradability: not applicable.
Tetrakis (Hydroxymethyl) Phosphonium Sulfate Solution (55566-30-8)	
Persistence and degradability	Not readily biodegradable in water.
Methanol (67-56-1)	
Persistence and degradability	Readily biodegradable in the soil. Readily biodegradable in water.
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

12.3. Bioaccumulative potential

Ethanolamine (141-43-5)	
Partition coefficient n-octanol/water (Log Pow)	-1.31 Source: ICSC
4-nonylphenyl-omega-hydroxypoly(oxy-1,2-), branched (127087-87-0)	
BCF - Fish [1]	7.6 – 12.4 l/kg (6 week(s), Cyprinus carpio, Static system, Fresh water, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	5.67 (Practical experience/observation, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500). Low potential for bioaccumulation (molecular mass >=700 g/mol).
Ammonium Chloride (12125-02-9)	
Partition coefficient n-octanol/water (Log Pow)	-3.2 (Experimental value, 25 °C)
Bioaccumulative potential	Not bioaccumulative.
Amino Methylene Phosponic Acid Salts (7647-01-0)	
Bioaccumulative potential	Not bioaccumulative.
Tetrakis (Hydroxymethyl) Phosphonium Sulfate Solution (55566-30-8)	
Partition coefficient n-octanol/water (Log Pow)	-9.8 (QSAR, KOWWIN)
Bioaccumulative potential	Not bioaccumulative.
Methanol (67-56-1)	
BCF - Fish [1]	1 – 4.5 (72 h, Cyprinus carpio, Static system, Fresh water, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	-0.77 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

4-nonylphenyl-omega-hydroxypoly(oxy-1,2-), branched (127087-87-0)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.631 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value)
Ecology - soil	No (test)data on mobility of the substance available. Low potential for adsorption in soil.
Ammonium Chloride (12125-02-9)	
Surface tension	No data available in the literature
Ecology - soil	Adsorption to soil is possible.
Amino Methylene Phosponic Acid Salts (7647-01-0)	
Ecology - soil	No (test)data on mobility of the component(s) available. May be harmful to plant growth, blooming and fruit formation.
Tetrakis (Hydroxymethyl) Phosphonium Sulfate Solution (55566-30-8)	
Mobility in soil	0 Source: EPISUITE
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.18 (log Koc, Calculated value)
Ecology - soil	Low potential for adsorption in soil.

Methanol (67-56-1)	
Mobility in soil	2.75 Source: HSDB
Surface tension	No data available in the literature
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	-0.89 – -0.21 (log Koc, Calculated value)
Ecology - soil	Highly mobile in soil.

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Additional information : Flammable vapors may accumulate in the container.

SECTION 14: Transport information

DOT	IMDG	IATA
14.1. UN number		
1993	1993	1993
14.2. Proper Shipping Name		
Flammable liquids, n.o.s. (Methanol)	FLAMMABLE LIQUID, N.O.S. (Methanol)	Flammable liquid, n.o.s. (Methanol)
14.3. Transport hazard class(es)		
3	3	3
14.4. Packing group		
II	II	II
14.5. Environmental hazards		
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes
No supplementary information available		

14.6. Special precautions for user

DOT
UN-No.(DOT) : UN1993
DOT Packaging Exceptions (49 CFR 173.xxx) : 150
DOT Packaging Non Bulk (49 CFR 173.xxx) : 202
DOT Packaging Bulk (49 CFR 173.xxx) : 242

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	:	5 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	:	60 L
DOT Vessel Stowage Location	:	B - (i) The material may be stowed ‘‘on deck’’ or ‘‘under deck’’ on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) ‘‘On deck only’’ on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.

IMDG

Special provision (IMDG)	:	274
Limited quantities (IMDG)	:	1 L
Excepted quantities (IMDG)	:	E2
Packing instructions (IMDG)	:	P001
IBC packing instructions (IMDG)	:	IBC02
Tank instructions (IMDG)	:	T7
Tank special provisions (IMDG)	:	TP1, TP28, TP8
EmS-No. (Fire)	:	F-E - FIRE SCHEDULE Echo - NON-WATER-REACTIVE FLAMMABLE LIQUIDS
EmS-No. (Spillage)	:	S-E - SPILLAGE SCHEDULE Echo - FLAMMABLE LIQUIDS, FLOATING ON WATER
Stowage category (IMDG)	:	B

IATA

PCA Excepted quantities (IATA)	:	E2
PCA Limited quantities (IATA)	:	Y341
PCA limited quantity max net quantity (IATA)	:	1L
PCA packing instructions (IATA)	:	353
PCA max net quantity (IATA)	:	5L
CAO packing instructions (IATA)	:	364
CAO max net quantity (IATA)	:	60L
Special provision (IATA)	:	A3
ERG code (IATA)	:	3H

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:		
Ethanolamine	CAS-No. 141-43-5	0.99 – 9.9%
4-nonylphenyl-omega-hydroxypoly(oxy-1,2-), branched	CAS-No. 127087-87-0	1 – 5%
Ammonium Chloride	CAS-No. 12125-02-9	1 – 5%
Amino Methylene Phosponic Acid Salts	CAS-No. 7647-01-0	1 – 10%
Tetrakis (Hydroxymethyl) Phosphonium Sulfate Solution	CAS-No. 55566-30-8	10 – 30%

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.		
Methanol	CAS-No. 67-56-1	20 – 40%

Methanol (67-56-1)	
Listed on EPA Hazardous Air Pollutant (HAPS)	
CERCLA RQ	5000 lb

15.2. International regulations

CANADA

Methanol (67-56-1)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

Methanol (67-56-1)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

WARNING: This product can expose you to Methanol, 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.

SECTION 16: Other information

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

Full text of H-phrases	
H225	Highly flammable liquid and vapor
H302	Harmful if swallowed
H311	Toxic in contact with skin
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H331	Toxic if inhaled
H400	Very toxic to aquatic life
H402	Harmful to aquatic life

Safety Data Sheet (SDS), USA