Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial Preparation Date: 05.05.2022

Revision date: 05.28.2025

Shine Time "Shine

SECTION 1: Identification

Product Identifier

Product Name: Shine Time "Shine

Product code: WX-611

Recommended Use of the Product and Restriction on Use

Relevant Identified Uses: Only for use in Automatic Car Wash Equipment

Uses Advised Against: Hand application to vehicle or any other use.

Reasons Why Uses Advised Against: Eye irritancy, possible skin rash and narcotic effect

Manufacturer or Supplier Details

Manufacturer:

United States

JBS Industries
2726 Henkle Drive
Lebanon, Ohio 45036
513-228-2800
SBAETEN@JBSINDUSTRIES.COM

Emergency Telephone Number:

North America

CHEMTREC
800-424-9300 (24 hours)

SECTION 2: Hazard(s) Identification

GHS Classification:

Skin irritation, category 2
Serious eye damage, category 1
Flammable liquids, category 4
Reproductive toxicity, category 2
Specific target organ toxicity - single exposure, category 3, narcotic effects

Label elements

Hazard Pictograms:

Signal Word: Danger

Hazard statements:

H227 Combustible liquid
H315 Causes skin irritation

H318 Causes serious eye damage
H361 Suspected of damaging fertility or the unborn child.
H336 May cause drowsiness or dizziness

Precautionary Statements:

P264 Wash hands thoroughly after handling
P280 Wear protective gloves/protective clothing/eye protection/face protection
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking
P202 Do not handle until all safety precautions have been read and understood
P261 Avoid breathing dust/fume/gas/mist/vapors/spray
P271 Use only outdoors or in a well-ventilated area
P302+P352 IF ON SKIN: Wash with plenty of water
P362 Take off contaminated clothing and wash it before reuse
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
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P403+P235 Store in a well-ventilated place. Keep cool
P405 Store locked up
P501 It is the responsibility of the waste generator to characterize all waste material according to regulatory entities.

Hazards Not Otherwise Classified: None

SECTION 3: Composition/Information on Ingredients

Identification	Name	Weight %
CAS Number: 64741-44-2	Distillates (petroleum), straight-run middle	<25
CAS Number: Proprietary	Proprietary Quaternary Ammonium Salt	<40
CAS Number: 61789-40-0	1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	<25
CAS Number: 68439-46-3	Alcohols, C9-11, branched and linear, ethoxylated	<15
CAS Number: 68155-39-5	Amines, C14-18 and C16-18-unsaturated alkyl, ethoxylated	<10
CAS Number: 107-41-5	Hexylene glycol	<5
CAS Number: 56-81-5	Glycerol	<1.5
CAS Number: 50-00-0	Formaldehyde	<0.045
CAS Number: 79-43-6	Dichloroacetic acid	<0.045
CAS Number: 75-21-8	Ethylene oxide	<0.005

CAS Number: 123-91-1	1,4-dioxane	<0.005

Additional Information: None

SECTION 4: First Aid Measures

Description of First Aid Measures

General Notes:

Show this Safety Data Sheet to the doctor in attendance.

After Inhalation:

If inhaled, remove person to fresh air and place in a position comfortable for breathing. Keep person at rest. If breathing is difficult, administer oxygen. If breathing has stopped, provide artificial respiration. If symptoms develop or persist, seek medical advice/attention.

After Skin Contact:

Remove contaminated clothing and shoes. Rinse skin with copious amounts of water [shower] for several minutes. Launder contaminated clothing before reuse. If symptoms develop or persist, seek medical advice/attention.

After Eye Contact:

Rinse eyes with plenty of water for several minutes. Remove contact lenses if present and easy to do so. Protect unexposed eye. If symptoms develop or persist, seek medical advice/attention.

After Swallowing:

If swallowed, DO NOT induce vomiting unless told to do so by a physician or poison control center. Rinse mouth with water. Never give anything by mouth to an unconscious person. If spontaneous vomiting occurs, place on the left side with head down to prevent aspiration of liquid into the lungs. If symptoms develop or persist, seek medical advice/attention.

Most Important Symptoms and Effects, Both Acute and Delayed

Acute Symptoms and Effects:

Skin contact may result in redness, pain, burning and inflammation.

Eye contact may result in irritation, redness, pain, inflammation, itching, burning, tearing, corneal damage and loss of vision.

Product is combustible. Exposure to sources of ignition may cause physical injury.

Inhalation may have adverse effects on the central nervous system. Symptoms may include drowsiness, dizziness, headache, nausea and lowering of consciousness. Acute overexposure via inhalation may result in respiratory distress, confusion and unconsciousness.

Delayed Symptoms and Effects:

Effects are dependent on exposure (dose, concentration, contact time).

Long term exposure may affect fertility. Symptoms include, but are not limited to: menstrual problems, altered sexual behavior/fertility/ and pregnancy outcome. Long term exposure may also affect development of the unborn child. Symptoms include, but are not limited to: intrauterine growth retardation, pre-term birth, birth defects and postnatal death.

Immediate Medical Attention and Special Treatment

Specific Treatment:

In case of eye contact, seek prompt medical attention while rinsing is continued.

Skin/eye burns require immediate treatment.

Overexposure via inhalation requires urgent medical treatment.

Notes for the Doctor:

Treat symptomatically.

SECTION 5: Firefighting Measures

Extinguishing Media

Suitable Extinguishing Media:

Water mist/fog, carbon dioxide, dry chemical or alcohol resistant foam.

Unsuitable Extinguishing Media:

Do not use water jet.

Specific Hazards During Fire-Fighting:

Combustible liquid. Will be easily ignitable by heat, sparks or flames. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapor explosion hazard indoors, outdoors or in sewers. Runoff to sewer may create fire or explosion hazard. Containers may explode when heated. Inhalation or contact with material may irritate or burn skin and eyes. Fire may produce irritating, corrosive and/or toxic gases. Vapors may cause dizziness or suffocation.

Special Protective Equipment for Firefighters:

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full-face piece operated in positive pressure mode.

Special precautions:

Avoid contact with skin, eyes, hair and clothing. Do not breathe fumes/gas/mists/aerosols/vapors/dusts. Move containers from fire area if safe to do so. Use water spray/fog for cooling fire exposed containers. Avoid unnecessary run-off of extinguishing media which may cause pollution.

Evacuate non-essential personnel. Ventilate closed spaces before entering. Consider initial evacuation for 300 meters in all directions. If tank/rail car is involved in the fire, ISOLATE for 800 meters in all directions. Fight fire from a maximum distance. Move containers from fire area if you can do it without risk. Use water spray/fog for cooling fire exposed containers. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. Always stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles. If this is impossible, withdraw from area and let fire burn. Stand by, at a safe distance, with extinguisher ready for possible re-ignition. A vapor-suppressing foam may be used to reduce vapors. Avoid unnecessary run-off of extinguishing media which may cause pollution. Do not handle damaged containers unless specialized to do so.

SECTION 6: Accidental Release Measures

Personal Precautions, Protective Equipment, and Emergency Procedures:

Evacuate unnecessary personnel. Ventilate area. Extinguish any sources of ignition. All equipment used when handling the product must be grounded. Wear recommended personal protective equipment (see Section 8). Avoid contact with skin, eyes and clothing. Avoid breathing mist, vapor, dust, fume and spray. Do not walk through spilled material. Wash thoroughly after handling.

Environmental Precautions:

Prevent further leakage or spillage if safe to do so. Prevent from reaching drains, sewers and waterways. Discharge into the environment must be avoided.

Methods and Material for Containment and Cleaning Up:

Do not touch damaged containers or spilled material unless wearing appropriate personal protective clothing. Stop leak if you can do it without risk. Contain and collect spillage and place in suitable container for future disposal. Dispose of in accordance with all applicable regulations (see Section 13).

Reference to Other Sections:

For personal protective equipment see Section 8. For disposal see Section 13.

SECTION 7: Handling and Storage

Precautions for Safe Handling:

Use appropriate personal protective equipment (see Section 8). Use only with adequate ventilation. Avoid breathing mist/vapor/spray/dust. Do not eat, drink, smoke, or use personal products when handling chemical substances. Do not get in eyes. Avoid contact with skin and clothing. Wash affected areas thoroughly after handling. Keep away from incompatible materials (See Section 10). Keep containers tightly closed when not in use.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating and lighting equipment. Take action to prevent static discharges. Handle containers with caution. Use appropriate personal protective equipment (see Section 8). Use only with adequate ventilation. Avoid breathing mist/vapor/spray/dust. Do not eat, drink, smoke, or use personal products when handling chemical substances. Avoid contact with skin, eyes and clothing. Wash affected areas thoroughly after handling. Keep away from incompatible materials (See Section 10). Keep containers tightly closed when not in use.

Conditions for Safe Storage, Including Any Incompatibilities:

Store in cool, dry, well-ventilated location out of direct sunlight. Keep away from food and beverages. Protect from freezing and physical damage. Store away from heat, open flames and other sources of ignition. Keep container tightly sealed. Store away from incompatible materials (See Section 10).

SECTION 8: Exposure Controls/Personal Protection

Only those substances with limit values have been included below.

Occupational Exposure Limit Values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
ACGIH	Dichloroacetic acid	79-43-6	8-Hour TWA: 0.5 ppm
	Glycerol	56-81-5	TLV-TWA: 10 mg/m³ (8 hr, Particles, insoluble or poorly soluble, not otherwise specified, inhalable)
	Glycerol	56-81-5	TLV-TWA: 3 mg/m³ (8 hr, Particles, insoluble or poorly soluble, not otherwise specified, respirable)
	Formaldehyde	50-00-0	8-Hour TWA: 0.1 ppm
	Formaldehyde	50-00-0	15-Minute STEL: 0.3 ppm
	Ethylene oxide	75-21-8	8-Hour TWA: 1 ppm
	1,4-dioxane	123-91-1	8-Hour TWA: 20 ppm
OSHA	Glycerol	56-81-5	8-Hour TWA-PEL: 15 mg/m³ (Mist, total)
	Glycerol	56-81-5	8-Hour TWA-PEL: 5 mg/m³ (Mist, respirable fraction)
	Formaldehyde	50-00-0	8-Hour TWA-PEL: 0.75 ppm (0.5 ppm Action Level)
	Formaldehyde	50-00-0	15-Minute STEL: 2 ppm (PEL)
	Ethylene oxide	75-21-8	8-Hour TWA: 1 ppm
	1,4-dioxane	123-91-1	8-Hour TWA-PEL: 360 mg/m³ (100 ppm)
United States(California)	Glycerol	56-81-5	8-Hour TWA-PEL: 10 mg/m³ (Particulates not otherwise regulated, total dust)

Country (Legal Basis)	Substance	Identifier	Permissible concentration
	Glycerol	56-81-5	8-Hour TWA-PEL: 5 mg/m³ (Particulates not otherwise regulated, respirable fraction)
	Formaldehyde	50-00-0	8-Hour TWA-PEL: 0.75 ppm (0.5 ppm Action Level)
	Formaldehyde	50-00-0	15-Minute STEL: 2 ppm
	Ethylene oxide	75-21-8	15-Minute STEL: 5 ppm
	1,4-dioxane	123-91-1	8-Hour TWA-PEL: 1 mg/m³ (0.28 ppm)
NIOSH	Formaldehyde	50-00-0	IDLH: 20 ppm
	Formaldehyde	50-00-0	REL-TWA: 0.016 ppm (up to 10 hr)
	Formaldehyde	50-00-0	Ceiling Limit: 0.1 ppm (15 min)
	Ethylene oxide	75-21-8	8-Hour TWA: 0.1 ppm (0.18 mg/m3)
	Ethylene oxide	75-21-8	IDLH: 800 ppm
	Ethylene oxide	75-21-8	Ceiling Limit: 5 ppm (9 mg/m3)
	1,4-dioxane	123-91-1	IDLH: 500 ppm
	1,4-dioxane	123-91-1	Ceiling Limit: 3.6 mg/m³ (1 ppm [30-min])

Biological Limit Values:

Country (Legal Basis)	Substance	Identifier	Determinant	Specimen	Sampling time	Permissible limits
ACGIH	Ethylene oxide	75-21-8	S-(2-Hydroxyethyl)mercapturic acid (HEMA)	creatinine urine	End of Shift	5 µg/g

Information on Monitoring Procedures:

Not determined or not applicable.

Appropriate Engineering Controls:

Emergency eye wash stations and safety showers should be available in the immediate vicinity of use or handling. Provide adequate ventilation to maintain the airborne concentrations of vapor, mists, and/or dusts below the applicable workplace exposure limits, while observing recognized national standards (or equivalent).

Personal Protection Equipment

Eye and Face Protection:

Use safety glasses with side shields or goggles. Consider the use of a face shield for splash protection. Use eye protection equipment that has been tested and approved by recognized national standards (or equivalent).

Skin and Body Protection:

Chemical resistant, impervious gloves approved by the appropriate standards. Gloves must be inspected prior to use. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. Avoid skin contact with used gloves. Appropriate techniques should be used to remove used gloves and contaminated clothing. Full body protection should be worn. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by

a specialist before handling this product. Ensure that all personal protective equipment is approved by recognized national standards (or equivalent).

Respiratory Protection:

If engineering controls do not maintain airborne concentrations below the applicable workplace exposure limits, or to an acceptable level (if exposure limits have not been established), a respirator approved by recognized national standards (or equivalent) must be worn.

General Hygienic Measures:

When handling chemical products, do not eat, drink or smoke. Wash hands after handling, before breaks, and at the end of the workday. Avoid contact with skin, eyes and clothing. Wash contaminated clothing before reuse. Perform routine housekeeping.

SECTION 9: Physical and Chemical Properties

Information on Basic Physical and Chemical Properties

Appearance	Liquid
Odor	Std.
Odor threshold	Not determined or not available.
pH	Not determined or not available.
Melting point/freezing point	Not determined or not available.
Initial boiling point/range	Not determined or not available.
Flash point (closed cup)	Not determined or not available.
Evaporation rate	Not determined or not available.
Flammability (solid, gas)	Not determined or not available.
Upper flammability/explosive limit	Not determined or not available.
Lower flammability/explosive limit	Not determined or not available.
Vapor pressure	Not determined or not available.
Vapor density	Not determined or not available.
Density	Not determined or not available.
Relative density	Not determined or not available.
Solubilities	Not determined or not available.
Partition coefficient (n-octanol/water)	Not determined or not available.
Auto/Self-ignition temperature	Not determined or not available.
Decomposition temperature	Not determined or not available.
Dynamic viscosity	Not determined or not available.
Kinematic viscosity	Not determined or not available.
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

SECTION 10: Stability and Reactivity

Reactivity:

Not reactive under recommended handling and storage conditions.

Chemical Stability:

Stable under recommended handling and storage conditions.

Possibility of Hazardous Reactions:

Hazardous reactions are not anticipated under recommended conditions of handling and storage.

Conditions to Avoid:

Extreme heat, open flames, hot surfaces, sparks, ignition sources and incompatible materials.

Incompatible Materials:

None known.

Hazardous Decomposition Products:

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

SECTION 11: Toxicological Information

Acute Toxicity

Assessment: Based on available data, the classification criteria are not met.

Product Data: No data available.

Substance Data:

Name	Route	Result
Distillates (petroleum), straight-run middle	inhalation	LC50 Rat: >2.53 mg/L (4 hr [aerosol])
	oral	LD50 Rat: > 5000 mg/kg
	dermal	LD50 Rabbit: > 2000 mg/kg
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	oral	LD50 Rat: > 5000 mg/kg
	dermal	LD50 Rat: > 2000 mg/kg
Formaldehyde	Oral ATE	LD50 Rat: 500 mg/kg
	Inhalation ATE	LC50 Rat: 100 ppmV (4 hr [Gas])
	Dermal ATE	LD50 Rat: 300 mg/kg
Dichloroacetic acid	dermal	LD50 Rabbit: 797 mg/kg
	oral	LD50 Rat: 2820 mg/kg
Glycerol	oral	LD50 Rat: 27,200 mg/kg
	inhalation	LC50 Rat: > 5.85 mg/L (4 hr [Aerosol])
	dermal	LD50 Rat: 56,750 mg/kg
Amines, C14-18 and C16-18-unsaturated alkyl, ethoxylated	Oral ATE	LD50 Rat: 500 mg/kg
Alcohols, C9-11, branched and linear, ethoxylated	oral	LD50 Rat: 1400 mg/kg
	dermal	LD50 Rabbit: > 2000 mg/kg ([Read-across substance data])
	inhalation	LC50 Rat: >1.6 mg/L (4 hr [aerosol, Read-across substance data])
Ethylene oxide	inhalation	LC50 Rat: 660 ppmV (4 hr [Gas])
	Oral ATE	LD50 Rat: 100 mg/kg
1,4-dioxane	oral	LD50 Rat: 5150 mg/kg
	dermal	LD50 Rabbit: 7600 mg/kg

Skin Corrosion/Irritation

Assessment:

Causes skin irritation.

Product Data:

No data available.

Substance Data:

Name	Result
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	Causes skin irritation.
Formaldehyde	Causes severe skin burns.
Dichloroacetic acid	Causes severe skin burns.
Amines, C14-18 and C16-18-unsaturated alkyl, ethoxylated	Causes skin irritation.
Ethylene oxide	Causes severe skin burns.

Serious Eye Damage/Irritation

Assessment:

Causes serious eye damage.

Product Data:

No data available.

Substance Data:

Name	Result
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	Causes serious eye irritation.
Formaldehyde	Causes serious eye damage.
Dichloroacetic acid	Causes serious eye damage.
Amines, C14-18 and C16-18-unsaturated alkyl, ethoxylated	Causes serious eye damage.
Alcohols, C9-11, branched and linear, ethoxylated	Causes serious eye damage.
Ethylene oxide	Causes serious eye damage
1,4-dioxane	Causes serious eye irritation.

Respiratory or Skin Sensitization

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data:

Name	Result
Formaldehyde	May cause an allergic skin reaction.
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	May cause an allergic skin reaction.

Carcinogenicity

Assessment: Based on available data, the classification criteria are not met.

Product Data: No data available.

Substance Data:

Name	Species	Result
Formaldehyde		May cause cancer.
Dichloroacetic acid		Suspected of causing cancer.
Ethylene oxide		May cause cancer.
1,4-dioxane		May cause cancer.

International Agency for Research on Cancer (IARC):

Name	Classification
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	Not Applicable
Dichloroacetic acid	Group 2B
Distillates (petroleum), straight-run middle	Not Applicable
Glycerol	Not Applicable
Formaldehyde	Group 1
Amines, C14-18 and C16-18-unsaturated alkyl, ethoxylated	Not Applicable
Alcohols, C9-11, branched and linear, ethoxylated	Not Applicable
Ethylene oxide	Group 1
1,4-dioxane	Group 2B

National Toxicology Program (NTP):

Name	Classification
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	Not Applicable
Dichloroacetic acid	Reasonably anticipated to be human carcinogens
Distillates (petroleum), straight-run middle	Not Applicable
Glycerol	Not Applicable
Formaldehyde	Known to be human carcinogens
Amines, C14-18 and C16-18-unsaturated alkyl, ethoxylated	Not Applicable
Alcohols, C9-11, branched and linear, ethoxylated	Not Applicable
Ethylene oxide	Known to be human carcinogens
1,4-dioxane	Reasonably anticipated to be human carcinogens

OSHA Carcinogens:

Ingredient Name	CAS	OSHA Carcinogens Status
Formaldehyde	50-00-0	Yes
Ethylene oxide	75-21-8	Yes

Germ Cell Mutagenicity

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data:

Name	Result
Formaldehyde	Suspected of causing genetic defects.
Ethylene oxide	May cause genetic defects.

Reproductive Toxicity

Assessment:

Suspected of damaging fertility or the unborn child.

Product Data:

No data available.

Substance Data:

Name	Result
Dichloroacetic acid	May damage fertility or the unborn child.
	May cause harm to breast-fed children.
Ethylene oxide	May damage fertility or the unborn child.

Specific Target Organ Toxicity (Single Exposure)

Assessment:

May cause drowsiness or dizziness.

Product Data:

No data available.

Substance Data:

Name	Result
Ethylene oxide	May cause respiratory irritation.
	May cause drowsiness or dizziness.
1,4-dioxane	May cause respiratory irritation.

Specific Target Organ Toxicity (Repeated Exposure)

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data:

Name	Result
Distillates (petroleum), straight-run middle	May cause damage to spleen, liver, and bone marrow through prolonged or repeated exposure.
Dichloroacetic acid	May cause damage to organs (brain, liver, testes) through prolonged or repeated exposure
Ethylene oxide	Cause damage to organs through prolonged or repeated exposure.

Aspiration toxicity

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data:

Name	Result
Distillates (petroleum), straight-run middle	May be fatal if swallowed and enters airways.

Information on Likely Routes of Exposure:
No data available.
Symptoms Related to the Physical, Chemical, and Toxicological Characteristics:
No data available.
Other Information:
No data available.

SECTION 12: Ecological Information

Acute (Short-Term) Toxicity
Assessment: Based on available data, the classification criteria are not met.
Product Data: No data available.
Substance Data:

Name	Result
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	Fish LC50 Danio rerio: 2 mg/L (96 hr)
	Aquatic Invertebrates EC50 Daphnia magna: 6.4 mg/L (48 hr [mobility])
	Aquatic Plants EC50 Ulva lactuca: 30 mg/L (48 hr [biomass])
Dichloroacetic acid	Fish LC50 Marine water fish: >2000 mg/L (96 h)
	Aquatic Plants EC50 Marine water algae: 148.2 mg/L (72 h [cell number])
Distillates (petroleum), straight-run middle	Aquatic Invertebrates EC50 Daphnia magna: 2 mg/L (48 hr [mobility; read across])
	Aquatic Plants EC50 Raphidocelis subcapitata: 22 mg/L (72 hr [growth rate; read across])
Glycerol	Fish LC50 Oncorhynchus mykiss: 54,000 mg/L (96 hr [mortality])
Formaldehyde	Fish LC50 Morone saxatilis: 6.7 mg/L (96 hr [mortality])
	Aquatic Invertebrates EC50 Daphnia pulex: 5.8 mg/L (48 hr [mobility])
	Aquatic Plants EC50 Desmodesmus subspicatus: 6.61 mg/L (72 hr [growth rate])
Alcohols, C9-11, branched and linear, ethoxylated	Fish LC50 Oncorhynchus mykiss: 5 - 7 mg/L (96 hr)
	Aquatic Invertebrates EC50 Daphnia magna: 2.5 mg/L (48 hr [mobility])
	Aquatic Plants EC50 Raphidocelis subcapitata: 1.4 mg/L (96 hr [cell number])
Ethylene oxide	Aquatic Plants EC50 Raphidocelis subcapitata: 240 mg/L (96 hr [growth rate, Read-across substance data])
	Aquatic Invertebrates EC50 Daphnia magna: 350 mg/L (48 hr [mobility, Read-across substance data])
	Fish LC50 Oncorhynchus mykiss: 52 mg/L (96 hr [Read-across substance data])
1,4-dioxane	Fish LC50 Pimephales promelas: 9850 mg/L (96 hr [mortality])
	Aquatic Invertebrates EC50 Daphnia magna: >1000 mg/L (48 hr [mobility])
	Aquatic Plants EC50 Pseudokirchneriella subcapitata: >1000 mg/L (72 hr [growth rate])

Chronic (Long-Term) Toxicity

Assessment: Based on available data, the classification criteria are not met.

Product Data: No data available.

Substance Data:

Name	Result
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	Aquatic Invertebrates NOEC Daphnia magna: 0.9 mg/L (21 d [reproduction])
Formaldehyde	Aquatic Invertebrates NOEC Daphnia magna: >= 6.4 mg/L (21 d [reproduction])
	Fish NOEC Oryzias latipes: >= 48 mg/L (28 d [mortality, target organ pathologies])
Alcohols, C9-11, branched and linear, ethoxylated	Fish NOEC Pimephales promelas: 0.28 mg/L (30 d [mortality, Read-across substance data])
	Aquatic Invertebrates NOEC Daphnia magna: 0.77 mg/L (21 d [reproduction, Read-across substance data])
1,4-dioxane	Fish NOEC Pimephales promelas: 145 mg/L (32 d [mortality])
	Aquatic Invertebrates NOEC Daphnia magna: 1000 mg/L (21 d [reproduction])
	Aquatic Plants NOEC Pseudokirchneriella subcapitata: 1000 mg/L (72 hr [growth rate])

Persistence and Degradability

Product Data: No data available.

Substance Data:

Name	Result
Distillates (petroleum), straight-run middle	Standard biodegradation studies are not applicable to petroleum UVCB substances.
Formaldehyde	The substance is readily biodegradable. 99% degradation in water, measured by DOC removal, after 28 days.
Dichloroacetic acid	The substance is readily biodegradable. 93% degradation, measured by Oxygen consumption, after 15 days.
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	The substance is readily biodegradable .>90% degradation in water, measured by test mat. analysis, after 5 days.
Glycerol	The substance is readily biodegradable. 94% degradation in water, measured by TOC removal, after 1 day.
Alcohols, C9-11, branched and linear, ethoxylated	The substance is readily biodegradable. 72% degradation in water, measured by inorganic C analysis, after 28 days (Read-across substance data).
Ethylene oxide	The substance is readily biodegradable. >= 83% degradation in water, measured by O2 consumption, after 14 days.
1,4-dioxane	The substance is not readily biodegradable in water. 1% degradation in water, measured by CO2 evolution, after 60 days.

Bioaccumulative Potential

Product Data: No data available.

Substance Data:

Name	Result
Dichloroacetic acid	This substance has low potential for bioaccumulation.
Distillates (petroleum), straight-run middle	Standard bioaccumulation studies are not applicable to petroleum UVCB substances.
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	Standard bioaccumulation studies are not applicable to UVCB substances.
Glycerol	The substance is not expected to bioaccumulate (log Kow <=3).
Formaldehyde	The substance is not expected to bioaccumulate (BCF= < 1 dimensionless).
Alcohols, C9-11, branched and linear, ethoxylated	The substance has the potential to bioaccumulate (log Pow=3.3 - 3.73 & BCF= 237 L/kg, Read-across substance data).
Ethylene oxide	The substance is not expected to bioaccumulate (log Pow: -0.3 at 25 °C).
1,4-dioxane	The substance is not expected to bioaccumulate (BCF: 0.3 - 0.7).

Mobility in Soil

Product Data: No data available.

Substance Data:

Name	Result
Formaldehyde	The substance is mobile, therefore, there is low potential for adsorption to soil and sediment (log Koc = 1.202) [calculation]
Dichloroacetic acid	This substance will not adsorb at all to soils or sediments should these environmental compartments be exposed to it.
Distillates (petroleum), straight-run middle	Standard adsorption/desorption studies are not applicable to petroleum UVCB substances.
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	The substance is mobile, therefore, there is low potential for adsorption to soil and sediment (log Koc: 1.812 dimensionless at 25 °C, Read-across substance data).
Alcohols, C9-11, branched and linear, ethoxylated	The substance is slightly mobile, therefore, adsorption to soil and sediment is expected (log Koc=2.7 - 3.5 at 25 °C, QSAR substance data).
Ethylene oxide	The substance is highly mobile, therefore, adsorption to soil and sediment is not expected (log Koc: 0.51 dimensionless, QSAR substance data).
1,4-dioxane	The substance is highly mobile, therefore, adsorption to soil and sediment is not expected (Log Koc: 0.45 L/Kg).

Results of PBT and vPvB assessment

Product Data:

PBT assessment: This product does not contain any substances that are assessed to be a PBT.

vPvB assessment: This product does not contain any substances that are assessed to be a vPvB.

Substance Data:

PBT assessment:

Distillates (petroleum), straight-run middle	The substance is not PBT.
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	The substance is not PBT.

Formaldehyde	The substance is not PBT.
Dichloroacetic acid	The substance is not PBT.
Glycerol	The substance is not PBT.
Alcohols, C9-11, branched and linear, ethoxylated	The substance is not PBT.
Ethylene oxide	The substance is not PBT.
1,4-dioxane	The substance is not PBT.

vPvB assessment:

Distillates (petroleum), straight-run middle	The substance is not vPvB.
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	The substance is not vPvB.
Formaldehyde	The substance is not PBT.
Dichloroacetic acid	The substance is not vPvB.
Glycerol	The substance is not vPvB.
Alcohols, C9-11, branched and linear, ethoxylated	The substance is not vPvB.
Ethylene oxide	The substance is not vPvB.
1,4-dioxane	The substance is not vPvB.

Other Adverse Effects: No data available.

SECTION 13: Disposal Considerations

Disposal Methods:

It is the responsibility of the waste generator to characterize all waste material according to regulatory entities.

Contaminated packages:

Not determined or not applicable.

SECTION 14: Transport Information

United States Transportation of Dangerous Goods (49 CFR DOT)

UN Number	Not Regulated
UN Proper Shipping Name	Not regulated
UN Transport Hazard Class(es)	None
Packing Group	None
Environmental Hazards	None
Special Precautions for User	None

International Maritime Dangerous Goods (IMDG)

UN Number	Not regulated
UN Proper Shipping Name	Not regulated
UN Transport Hazard Class(es)	None
Packing Group	None

Environmental Hazards	None
Special Precautions for User	None

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN Number	Not regulated
UN Proper Shipping Name	Not regulated
UN Transport Hazard Class(es)	None
Packing Group	None
Environmental Hazards	None
Special Precautions for User	None

SECTION 15: Regulatory Information

United States Regulations

Inventory Listing (TSCA): All ingredients are listed-active or exempt.

Significant New Use Rule (TSCA Section 5): None of the ingredients are listed.

Export Notification under TSCA Section 12(b): None of the ingredients are listed.

SARA Section 302 Extremely Hazardous Substances:

50-00-0	Formaldehyde	Listed
75-21-8	Ethylene oxide	Listed

SARA Section 313 Toxic Chemicals:

50-00-0	Formaldehyde	Listed
75-21-8	Ethylene oxide	Listed
123-91-1	1,4-dioxane	Listed

CERCLA:

64741-44-2	Distillates (petroleum), straight-run middle	Listed	100 lbs for D001
50-00-0	Formaldehyde	Listed	100 lbs
75-21-8	Ethylene oxide	Listed	10 lbs
123-91-1	1,4-dioxane	Listed	100 lbs

RCRA:

64741-44-2	Distillates (petroleum), straight-run middle	Listed	D001
50-00-0	Formaldehyde	Listed	U122
75-21-8	Ethylene oxide	Listed	U115
123-91-1	1,4-dioxane	Listed	U108

Section 112(r) of the Clean Air Act (CAA):

50-00-0	Formaldehyde	Listed
75-21-8	Ethylene oxide	Listed

Massachusetts Right to Know:

56-81-5	Glycerol	Listed
50-00-0	Formaldehyde	Listed
107-41-5	Hexylene glycol	Listed
75-21-8	Ethylene oxide	Listed

123-91-1	1,4-dioxane	Listed

New Jersey Right to Know:

79-43-6	Dichloroacetic acid	Listed
56-81-5	Glycerol	Listed
50-00-0	Formaldehyde	Listed
75-21-8	Ethylene oxide	Listed
123-91-1	1,4-dioxane	Listed

New York Right to Know:

79-43-6	Dichloroacetic acid	Listed
64741-44-2	Distillates (petroleum), straight-run middle	Listed
50-00-0	Formaldehyde	Listed
75-21-8	Ethylene oxide	Listed
123-91-1	1,4-dioxane	Listed

Pennsylvania Right to Know:

56-81-5	Glycerol	Listed
50-00-0	Formaldehyde	Listed
107-41-5	Hexylene glycol	Listed
75-21-8	Ethylene oxide	Listed
123-91-1	1,4-dioxane	Listed

California Proposition 65:

⚠**WARNING:** This product can expose you to chemicals including Formaldehyde and 1,4-dioxane which are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

⚠**WARNING:** This product can expose you to chemicals including Dichloroacetic acid and Ethylene oxide; which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Additional information: Not determined.

SECTION 16: Other Information

Abbreviations and Acronyms: None

Disclaimer:

This product has been classified in accordance with OSHA HCS 2012 guidelines. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal 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, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

NFPA: 0-0-0

HMIS: 0-0-0

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End of Safety Data Sheet