

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial Preparation Date: 01.03.2022

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Starr Sealer 2XC

SECTION 1: Identification

Product Identifier

Product Name: Starr Sealer 2XC

Product code: QW-3X10

Recommended Use of the Product and Restriction on Use

Relevant Identified Uses: Commercial Vehicle Wash - Rinse Agent -
Clear Coat Sealant

Uses Advised Against: Not determined or not applicable.

Reasons Why Uses Advised Against: Not determined or not applicable.

Manufacturer or Supplier Details

Manufacturer:

United States

Quest Car Care Products

3333 Production Ct.

Zeeland, Michigan 49464

616-772-5100

www.questcarcare.com

Emergency Telephone Number:

United States

CHEMTREC

1-800-424-9300 (24 hrs)

1-800-262-8200 (24 hrs)

1-703-527-3887 (24 hrs (international))

SECTION 2: Hazard(s) Identification

GHS Classification:

Flammable liquids, category 4

Acute toxicity (oral), category 4

Skin irritation, category 2

Serious eye damage, category 1

Specific target organ toxicity - single exposure, category 1

Aspiration hazard, category 1

Label elements

Hazard Pictograms:



Signal Word: Danger

Hazard statements:

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H227 Combustible liquid
H318 Causes serious eye damage
H304 May be fatal if swallowed and enters airways
H302 Harmful if swallowed
H370 Causes damage to organs if swallowed.
H315 Causes skin irritation

Precautionary Statements:

P280 Wear protective gloves/protective clothing/eye protection/face protection
P264 Wash hands/skin thoroughly after contact with or handling.
P270 Do not eat, drink or smoke when using this product
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking
P260 Do not breathe dust/fume/gas/mist/vapors/spray
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310 Immediately call a POISON CENTER/911/PHYSICIAN IF: swallowed, eye contact, skin burns/rash or breathing difficulties.
P331 Do NOT induce vomiting
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor/911 and follow first aid procedures on this SDS.
P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
P330 Rinse mouth
P370+P378 In case of fire: Use water spray or foam to extinguish [water jet not recommended].
P321 Specific treatment (see first aid procedures on the product label in section 4 of this SDS)
P307+P311 IF exposed: Call a POISON CENTER or doctor/physician
P302+P352 IF ON SKIN: WASH WITH PLENTY OF SOAP AND WATER.
P332+P313 If skin irritation occurs: Get medical advice/attention
P362 Take off contaminated clothing and wash it before reuse
P405 Store locked up
P403+P235 Store in a well-ventilated place. Keep cool
P501 Dispose of contents/container in accordance with local, state and federal regulations.

Hazards Not Otherwise Classified: None

SECTION 3: Composition/Information on Ingredients

Identification	Name	Weight %
CAS Number: 111-76-2	2-Butoxyethanol	15-30
CAS Number: Proprietary	Distillates (petroleum), straight-run middle	15-30
CAS Number: Proprietary	Quaternary compounds	15-30
CAS Number: 7732-18-5	Water	5-15
CAS Number: Proprietary	Siloxanes	1-5
CAS Number: 107-41-5	2,4-Pentanediol, 2-methyl-	1-5

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CAS Number: 64-19-7	Acetic Acid	0.5-1
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Additional Information:

Ingredients not listed above are considered trade secret.

SECTION 4: First Aid Measures

Description of First Aid Measures

General Notes:

Show this Safety Data Sheet to the doctor in attendance. Take precautions to ensure your own safety before attempting rescue. Wear appropriate safety eyewear, gloves, protective clothing and respiratory protection to prevent exposure. See Section 8 of this SDS for personal protective equipment recommendations. Do not use the mouth to mouth method if victim has ingested or inhaled the product. Give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper device.

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.

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 experiencing respiratory symptoms, 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:

Immediately rinse eyes with plenty of gently flowing lukewarm water for 15 minutes. Remove contact lenses if present and easy to do so. Protect unexposed eye. Seek immediate medical attention, preferably from an ophthalmologist.

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.

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:

This product presents an aspiration hazard. If aspiration is suspected, seek emergency medical treatment. 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.

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:

Eye contact may result in irritation, redness, pain, inflammation, itching, burning, tearing, corneal

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damage and loss of vision.

May be fatal if swallowed and enters airways. Aspiration may cause pulmonary edema and pneumonitis. Symptoms may include shortness of breath, dry cough and irritation of the nose, eyes, lips, mouth and throat.

Acute oral exposure may lead to dizziness, drowsiness, headache, breathing difficulties, nausea, vomiting, abdominal pain, and lowering of consciousness. Adverse effects are dependent on exposure (dose, concentration, contact time).

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

Causes damage to organs. Effects are dependent on exposure (dose, concentration, contact time).

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

Delayed Symptoms and Effects:

Symptoms of pulmonary edema may be delayed.

Symptoms of exposure may be delayed.

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

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.

If exhibiting symptoms of exposure, seek prompt medical attention.

Notes for the Doctor:

Treat symptomatically.

SECTION 5: Firefighting Measures

Extinguishing Media

Suitable Extinguishing Media:

Dry chemical, CO₂, water spray or alcohol-resistant foam.

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.

Thermal decomposition may produce irritating/toxic fumes/gases.

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:

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

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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.

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.

SECTION 6: Accidental Release Measures

Personal Precautions, Protective Equipment, and Emergency Procedures:

Evacuate unnecessary personnel. Ventilate area. Extinguish any sources of ignition. Wear recommended personal protective equipment (see Section 8). Do not get on skin, eyes or on clothing. Avoid breathing mist, vapor, dust, fume and spray. Do not walk through spilled material. Wash thoroughly after handling. Remove contaminated clothing and laundry before reuse.

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.

Evacuate unnecessary personnel. Ventilate area. Extinguish any sources of ignition. 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:

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

Harmful if swallowed. Do not touch damaged containers or spilled material unless wearing appropriate personal protective clothing. Avoid breathing dust, mist, fumes, vapors or spray. 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).

Do not touch damaged containers or spilled material unless wearing appropriate personal protective clothing. Stop leak if you can do it without risk. A vapor-suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers for future disposal. Dispose of in accordance with all applicable regulations (see Section 13).

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.

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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.

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
OSHA	2-Butoxyethanol	111-76-2	8-Hour TWA-PEL: 240 mg/m ³ (50 ppm)
	Acetic Acid	64-19-7	8-Hour TWA-PEL: 25 mg/m ³ (10 ppm)
NIOSH	2-Butoxyethanol	111-76-2	IDLH: 700 ppm
	2-Butoxyethanol	111-76-2	REL-TWA: 24 mg/m ³ (5 ppm [up to 10 hr])
	2,4-Pentanediol, 2-methyl-	107-41-5	Ceiling Limit: 125 mg/m ³ (25 ppm)
	Acetic Acid	64-19-7	IDLH: 50 ppm
	Acetic Acid	64-19-7	15-Minute STEL: 37 mg/m ³ (15 ppm)
	Acetic Acid	64-19-7	REL-TWA: 25 mg/m ³ (10 ppm [up to 10 hr])
ACGIH	2-Butoxyethanol	111-76-2	8-Hour TWA: 20 ppm
	2,4-Pentanediol, 2-methyl-	107-41-5	8-Hour TWA: 25 ppm (vapor fraction)
	2,4-Pentanediol, 2-methyl-	107-41-5	15-Minute STEL: 50 ppm (vapor fraction)
	2,4-Pentanediol, 2-methyl-	107-41-5	15-Minute STEL: 10 mg/m ³ (inhalable particulate matter, aerosol only)
	Acetic Acid	64-19-7	15-Minute STEL: 15 ppm
	Acetic Acid	64-19-7	8-Hour TWA: 10 ppm
United States(California)	2-Butoxyethanol	111-76-2	8-Hour TWA-PEL: 97 mg/m ³ (20 ppm)
	2,4-Pentanediol, 2-methyl-	107-41-5	Ceiling Limit: 125 mg/m ³ (25 ppm)

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Country (Legal Basis)	Substance	Identifier	Permissible concentration
	Acetic Acid	64-19-7	Ceiling Limit: 40 ppm
	Acetic Acid	64-19-7	15-Minute STEL: 37 mg/m ³ (15 ppm)
	Acetic Acid	64-19-7	8-Hour TWA-PEL: 25 mg/m ³ (10 ppm)

Biological Limit Values:

Country (Legal Basis)	Substance	Identifier	Determinant	Specimen	Sampling time	Permissible limits
ACGIH	2-Butoxyethanol	111-76-2	Butoxyacetic acid (with hydrolysis)	Creatinine in Urine	End of shift	200 mg/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). Safety glasses or goggles. 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). Chemical resistant, impervious gloves approved by the appropriate standards. Gloves must be inspected prior to use. Avoid skin contact with used gloves. Appropriate techniques should be used to remove used gloves and contaminated clothing. 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

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recognized national standards (or equivalent) must be worn. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate 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	Orange
Odor	Etherlike-Citrus
Odor threshold	Not determined or not available.
pH	4.0-6.0
Melting point/freezing point	Not determined or not available.
Initial boiling point/range	Not determined or not available.
Flash point (closed cup)	60 - 90 c
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	0.86-0.91
Solubilities	Water
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:

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

Conditions to Avoid:

Extreme heat, open flames, hot surfaces, sparks, ignition sources, static electricity and incompatible materials. Vapor accumulation in low or confined areas.

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:

Harmful if swallowed.

Product Data: No data available.

Substance Data:

Name	Route	Result
2-Butoxyethanol	dermal	LD50 Rabbit: 1060 mg/kg
	Oral ATE	LD50 Rat: 1200 mg/kg (Annex VI to the CLP)
	oral	LD50 Rat: 470 mg/kg
	Inhalation ATE	LC50 Rat: 11 mg/L (4 hr [Vapor])
Distillates (petroleum), straight-run middle	inhalation	LC50 Rat: 1.72 mg/L (4 hr [aerosol])
	oral	LD50 Rat: > 5000 mg/m ³
	dermal	LD50 Rabbit: > 2000 mg/kg
Quaternary compounds	Oral ATE	LD50 Rat: 500 mg/L
2,4-Pentanediol, 2-methyl-	oral	LD50 Rat: 3700 mg/kg
	inhalation	LC50 Rat: > 20 mg/L (4 h [vapor])
	dermal	LD50 Ray: >2000 mg/kg
Acetic Acid	oral	LD50 rat: 3310 mg/kg
	inhalation	LC50 mouse: 5620 ppmV (1H)

Skin Corrosion/Irritation

Assessment:

Causes skin irritation.

Product Data:

No data available.

Substance Data:

Name	Result
2-Butoxyethanol	Causes skin irritation.
Quaternary compounds	Causes severe skin burns.
Siloxanes	Causes severe skin burns.
2,4-Pentanediol, 2-methyl-	Causes skin irritation.
Acetic Acid	Causes severe skin burns.

Serious Eye Damage/Irritation

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Assessment:

Causes serious eye damage.

Product Data:

No data available.

Substance Data:

Name	Result
2-Butoxyethanol	Causes serious eye irritation.
Quaternary compounds	Causes serious eye damage.
Siloxanes	Causes serious eye damage.
2,4-Pentanediol, 2-methyl-	Causes serious eye irritation.
Acetic Acid	Causes serious eye damage.

Respiratory or Skin Sensitization

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

Product Data:

No data available.

Substance Data: No data available.

Carcinogenicity

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

Product Data: No data available.

Substance Data: No data available.

International Agency for Research on Cancer (IARC):

Name	Classification
Quaternary compounds	Not Applicable
2-Butoxyethanol	Group 3
Water	Not Applicable
2,4-Pentanediol, 2-methyl-	Not Applicable
Acetic Acid	Not Applicable

National Toxicology Program (NTP):

Name	Classification
Quaternary compounds	Not Applicable
2-Butoxyethanol	Not Applicable
Water	Not Applicable
2,4-Pentanediol, 2-methyl-	Not Applicable
Acetic Acid	Not Applicable

OSHA Carcinogens: Not applicable

Germ Cell Mutagenicity

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

Product Data:

No data available.

Substance Data: No data available.

Reproductive Toxicity

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

Product Data:

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No data available.

Substance Data: No data available.

Specific Target Organ Toxicity (Single Exposure)

Assessment:

Causes damage to organs.

Product Data:

No data available.

Substance Data: No data available.

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.

Aspiration toxicity

Assessment:

May be fatal if swallowed and enters airways.

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
2-Butoxyethanol	Aquatic Invertebrates EC50 Daphnia magna: 1550 mg/L (48 hr [mobility])
	Fish LC50 Oncorhynchus mykiss: 1474 mg/L (96 hr)
	Aquatic Plants EC50 Freshwater algae: 1840 mg/L (72 hr [growth rate])
Distillates (petroleum), straight-run middle	Aquatic Invertebrates EC50 Daphnia magna: 2 mg/L (48 hr [read across])
	Aquatic Plants EC50 Pseudokirchneriella subcapitata: 1.8 mg/L (72 hr [read across])

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Name	Result
2,4-Pentanediol, 2-methyl-	Fish LC50 Pimephales promelas: 8690 mg/L (96 h [mortality])
	Aquatic Invertebrates EC50 Daphnia magna: 4310 mg/L (48 h [mortality])
	Aquatic Plants EC50 Pseudokirchneriella subcapitata: >429 mg/L (72 h [biomass, 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
2-Butoxyethanol	Fish LC50 Poecilia reticulata: 983 mg/L (7 d)
	Aquatic Invertebrates EC50 Daphnia magna: 297 mg/L (21 d [reproduction])
Acetic Acid	Fish LC50 Freshwater fish: >300.82 mg/L (96 hr [calculated])
	Aquatic Invertebrates EC50 Daphnia magna: >300.82 mg/L (48 hr [calculated])
	Aquatic Plants EC50 Skeletonema costatum: >300.82 mg/L (72 hr [calculated])

Persistence and Degradability

Product Data: No data available.

Substance Data:

Name	Result
2-Butoxyethanol	Readily biodegradable (90.4% degradation after 28 days, measured by CO2 evolution).
Distillates (petroleum), straight-run middle	This substance is readily biodegradable in water (57.5% degradation after 28 days, O2 consumption).
2,4-Pentanediol, 2-methyl-	Readily biodegradable (81% degradation after 28 days, measured by Oxygen consumption).
Acetic Acid	Readily biodegradable in water.

Bioaccumulative Potential

Product Data: No data available.

Substance Data:

Name	Result
2-Butoxyethanol	Not expected to bioaccumulate (log Kow = 0.83).
Distillates (petroleum), straight-run middle	Standard bioaccumulation studies are not applicable to petroleum UVCB substances.
2,4-Pentanediol, 2-methyl-	Accumulation in organisms is not to be expected (log Kow: 0.58).
Acetic Acid	Bioaccumulation is not expected. BCF (aquatic species): 3.16 dimensionless

Mobility in Soil

Product Data: No data available.

Substance Data:

Name	Result
Distillates (petroleum), straight-run middle	Standard adsorption/desorption studies are not applicable to petroleum UVCB substances.

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Name	Result
2,4-Pentanediol, 2-methyl-	This substance is expected to have a very high mobility (estimated Koc: 1).
Acetic Acid	The substance is highly mobile in soil with a very low potential for adsorption to soil and sediment. Koc at 20 °C: 1.153

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:

2-Butoxyethanol	The substance is not PBT.
Distillates (petroleum), straight-run middle	This substance is not PBT.
2,4-Pentanediol, 2-methyl-	The substance is not PBT.
Acetic Acid	The substance is not PBT.

vPvB assessment:

2-Butoxyethanol	The substance is not vPvB.
Distillates (petroleum), straight-run middle	This substance is not vPvB.
2,4-Pentanediol, 2-methyl-	The substance is not vPvB.
Acetic Acid	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 properly characterize all waste materials according to applicable 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

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Packing Group	None
Environmental Hazards	None
Special Precautions for User	None

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

UN Number	UN1993	
UN Proper Shipping Name	Flammable Liquids, N.O.S. (Isopropanol)	
UN Transport Hazard Class(es)	3	
Packing Group	III	
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: None of the ingredients are listed.

SARA Section 313 Toxic Chemicals:

111-76-2	2-Butoxyethanol	Listed
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CERCLA:

111-76-2	2-Butoxyethanol	Listed	N/A
64-19-7	Acetic Acid	Listed	5000 lbs

RCRA: None of the ingredients are listed.

Section 112(r) of the Clean Air Act (CAA): None of the ingredients are listed.

Massachusetts Right to Know:

111-76-2	2-Butoxyethanol	Listed
107-41-5	2,4-Pentanediol, 2-methyl-	Listed
64-19-7	Acetic Acid	Listed

New Jersey Right to Know:

111-76-2	2-Butoxyethanol	Listed
107-41-5	2,4-Pentanediol, 2-methyl-	Listed
64-19-7	Acetic Acid	Listed

New York Right to Know:

Proprietary	Distillates (petroleum), straight-run middle	Listed
111-76-2	2-Butoxyethanol	Listed
107-41-5	2,4-Pentanediol, 2-methyl-	Listed
64-19-7	Acetic Acid	Listed

Pennsylvania Right to Know:

111-76-2	2-Butoxyethanol	Listed
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107-41-5	2,4-Pentenediol, 2-methyl-	Listed
64-19-7	Acetic Acid	Listed

California Proposition 65: None of the ingredients are listed.

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: 2-2-0-B

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End of Safety Data Sheet