Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial Preparation Date: 06.19.2019

Revision date: 08.22.2023

Action Glow Foam

SECTION 1: Identification

Product Identifier

Product Name: Action Glow Foam

Product code: AT-120

Recommended Use of the Product and Restriction on Use

Relevant Identified Uses: Foaming Detergent

Uses Advised Against: NA

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

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:

Serious eye damage, category 1

Label elements

Hazard Pictograms:

Signal Word: Danger

Hazard statements:

H318 Causes serious eye damage

Precautionary Statements:

P280 Wear protective gloves/protective clothing/eye protection/face protection
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/doctor/...
P501 It is the responsibility of the waste generator to characterize all waste materials according to applicable regulatory entities.

Hazards Not Otherwise Classified: None

SECTION 3: Composition/Information on Ingredients

Identification	Name	Weight %
CAS Number: 68584-22-5	Benzenesulfonic acid, C10-16-alkyl derivatives	<70
CAS Number: 102-71-6	2,2',2''-Nitrilotriethanol	<45
CAS Number: 1310-73-2	Sodium hydroxide	<40
CAS Number: 57-55-6	Propane-1,2-diol	<20
CAS Number: 1300-72-7	Sodium Xylenesulfonate	<7.5
CAS Number: 7664-93-9	Sulfuric acid	<7
CAS Number: 68648-87-3	Benzene, C10-16-alkyl derivs	<7
CAS Number: 111-76-2	2-Butoxyethanol	<20
CAS Number: 52-51-7	Bronopol (INN) 2-bromo-2-nitropropane-1,3-diol	<2
CAS Number: 7757-82-6	Sodium sulphate	<0.45
CAS Number: 111-42-2	2,2'-iminodiethanol	<0.005
CAS Number: 107-21-1	Ethane-1,2-diol	<0.0045

Additional Information: None

SECTION 4: First Aid Measures

Description of First Aid Measures

General Notes:

Not determined or not applicable.

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 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:

Not determined or not applicable.

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:

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

Delayed Symptoms and Effects:

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.

Notes for the Doctor:

Not determined or not applicable.

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:

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:

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). 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.

Respiratory protection may be necessary for spills greater than 5 gallons. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

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.

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).
Store in cool and dry location and out of direct sunlight. Store away from sources of heat or ignition. Store away from incompatible materials described in Section 10. Keep containers closed when not in use. Keep away from food and beverages. Protect from freezing and physical damage.

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	Sodium hydroxide	1310-73-2	Ceiling Limit: 2 mg/m³
	2,2',2''-Nitrilotriethanol	102-71-6	8-Hour TWA: 5 mg/m³
	2-Butoxyethanol	111-76-2	8-Hour TWA: 20 ppm
	Sulfuric acid	7664-93-9	8-Hour TWA: 0.2 mg/m³ (thoracic fraction)
	Ethane-1,2-diol	107-21-1	8-Hour TWA: 25 ppm (vapor fraction)
	Ethane-1,2-diol	107-21-1	15-Minute STEL: 50 ppm (vapor fraction)
	Ethane-1,2-diol	107-21-1	15-Minute STEL: 10 mg/m³ (aerosol only, inhalable fraction)
	2,2'-iminodiethanol	111-42-2	8-Hour TWA: 1 mg/m³
OSHA	Sodium hydroxide	1310-73-2	8-Hour TWA-PEL: 2 mg/m³
	2-Butoxyethanol	111-76-2	8-Hour TWA-PEL: 240 mg/m³ (50 ppm)
	Sulfuric acid	7664-93-9	8-Hour TWA-PEL: 1 mg/m³
	Ethane-1,2-diol	107-21-1	Ceiling Limit: 125 mg/m³ (50 ppm)
NIOSH	Sodium hydroxide	1310-73-2	IDLH: 10 mg/m³
	2-Butoxyethanol	111-76-2	IDLH: 700 ppm

Country (Legal Basis)	Substance	Identifier	Permissible concentration
	2-Butoxyethanol	111-76-2	REL-TWA: 24 mg/m³ (5 ppm [up to 10 hr])
	Sulfuric acid	7664-93-9	REL-TWA: 1 mg/m³ (10 hr)
	Sulfuric acid	7664-93-9	IDLH: 15 mg/m³
	Sodium hydroxide	1310-73-2	Ceiling Limit: 2 mg/m³
	2,2'-iminodiethanol	111-42-2	REL-TWA: 15 mg/m³ (3 ppm [up to 10 hr])
United States(California)	2,2',2''-Nitrilotriethanol	102-71-6	8-Hour TWA: 5 mg/m³
	Sodium hydroxide	1310-73-2	Ceiling Limit: 2 mg/m³
	2-Butoxyethanol	111-76-2	8-Hour TWA-PEL: 97 mg/m³ (20 ppm)
	Sodium hydroxide	1310-73-2	REL: 8 ug/m³ (Acute Inhalation)
	Sulfuric acid	7664-93-9	8-Hour TWA-PEL: 0.1 mg/m³
	Sulfuric acid	7664-93-9	15-Minute STEL: 3 mg/m³
	Ethane-1,2-diol	107-21-1	Ceiling Limit: 100 mg/m³ (40 ppm)
	Ethane-1,2-diol	107-21-1	REL: 400 ug/m³ (Chronic Inhalation)
	2,2'-iminodiethanol	111-42-2	8-Hour TWA-PEL: 2 mg/m³ ([0.46 ppm])
WEEL	Propane-1,2-diol	57-55-6	8-Hour TWA: 10 mg/m³

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).

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	7.5-8.5
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
Bronopol (INN) 2-bromo-2-nitropropane-1,3-diol	dermal	LD50 Rat: 1600 mg/kg
	oral	LD50 Rat: 254 mg/kg
	inhalation	LC50 Rat: > 0.588 mg/L (4 hr [aerosol])
Propane-1,2-diol	oral	LD50 Rat: 22,000 mg/kg
	dermal	LD50 Rabbit: >2000 mg/kg
	inhalation	LC50 Rabbit: > 44.9 mg/L (4hr [vapour])
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])
Benzenesulfonic acid, C10-16-alkyl derivatives	inhalation	LC50 Rat: >1.9 mg/L (4 h [aerosol])
	Dermal ATE	LD50 Rabbit: 1100 mg/kg
	Oral ATE	LD50 Rat: 500 mg/kg
2,2',2''-Nitrilotriethanol	oral	LD50 Rat: 6400 mg/kg
	dermal	LD50 Rabbit: >2000 mg/kg
Sulfuric acid	oral	LD50 Rat: 2140 mg/kg
Sodium hydroxide	oral	LD50 Rat: 140-340 mg/kg
	dermal	LD50 Rabbit: 1350 mg/kg
Sodium sulphate	oral	LD50 Rat: > 2000 mg/kg
	inhalation	LC50 Rat: > 2.4 mg/L (4 hr - Dust)
Sodium Xylenesulfonate	dermal	LD50 Rabbit: >= 2000 mg/kg
	oral	LD50 Rat: >= 3346 mg/kg
Ethane-1,2-diol	dermal	LD50 Mouse: > 3500 mg/kg
	Oral ATE	LD50 Rat: 500 mg/kg (Converted acute toxicity point estimate)
2,2'-iminodiethanol	oral	LD50 Rat: 710 mg/kg

Skin Corrosion/Irritation

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

Product Data:

No data available.

Substance Data:

Name	Result
Bronopol (INN) 2-bromo-2-nitropropane-1,3-diol	Causes skin irritation.
Sodium hydroxide	Causes severe skin burns.
2-Butoxyethanol	Causes skin irritation.
Benzenesulfonic acid, C10-16-alkyl derivatives	Causes severe skins burns.
Sulfuric acid	Causes severe skin burns.
2,2'-iminodiethanol	Causes skin irritation.

Serious Eye Damage/Irritation

Assessment:

Causes serious eye damage.

Product Data:

No data available.

Substance Data:

Name	Result
Bronopol (INN) 2-bromo-2-nitropropane-1,3-diol	Causes serious eye damage.
Sodium hydroxide	Causes serious eye damage.
2-Butoxyethanol	Causes serious eye irritation.
Sodium Xylenesulfonate	Causes serious eye irritation.
Benzenesulfonic acid, C10-16-alkyl derivatives	Causes serious eye damage.
Sulfuric acid	Causes serious eye damage.
2,2'-iminodiethanol	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:

Name	Species	Result
2,2'-iminodiethanol		There is inadequate evidence in humans for the carcinogenicity of diethanolamine. Cancer in experimental animals: There is sufficient evidence in experimental animals for the carcinogenicity of diethanolamine.

International Agency for Research on Cancer (IARC):

Name	Classification
Bronopol (INN) 2-bromo-2-nitropropane-1,3-diol	Not Applicable
Sodium hydroxide	Not Applicable
2,2',2''-Nitrilotriethanol	Group 3
Propane-1,2-diol	Not Applicable
2-Butoxyethanol	Group 3
Sodium sulphate	Not Applicable
Sodium Xylenesulfonate	Not Applicable
Benzenesulfonic acid, C10-16-alkyl derivatives	Not Applicable
Sulfuric acid	Group 1
Ethane-1,2-diol	Not Applicable
2,2'-iminodiethanol	Group 2B

National Toxicology Program (NTP):

Name	Classification
Bronopol (INN) 2-bromo-2-nitropropane-1,3-diol	Not Applicable
Sodium hydroxide	Not Applicable
2,2',2''-Nitrilotriethanol	Not Applicable
Propane-1,2-diol	Not Applicable
2-Butoxyethanol	Not Applicable
Sodium sulphate	Not Applicable
Sodium Xylenesulfonate	Not Applicable
Benzenesulfonic acid, C10-16-alkyl derivatives	Not Applicable
Sulfuric acid	Known to be human carcinogens
Ethane-1,2-diol	Not Applicable
2,2'-iminodiethanol	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:

No data available.

Substance Data: No data available.

Specific Target Organ Toxicity (Single Exposure)

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

Product Data:
No data available.
Substance Data:

Name	Result
Bronopol (INN) 2-bromo-2-nitropropane-1,3-diol	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
Sulfuric acid	Repeated or prolonged inhalation may damage the lungs. Risk of tooth erosion upon repeated or prolonged exposure to an aerosol of this substance.
Ethane-1,2-diol	May cause damage to Kidney through prolonged or repeated oral exposure.
2,2'-iminodiethanol	May cause damage to liver, blood and kidney through prolonged or repeated oral exposure.

Aspiration toxicity
Assessment: Based on available data, the classification criteria are not met.
Product Data:
No data available.
Substance Data: No data available.
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
Bronopol (INN) 2-bromo-2-nitropropane-1,3-diol	Aquatic Invertebrates EC50 Daphnia magna: 1.4 mg/L (48 hr [mortality])
	Fish LC50 Lepomis macrochirus: 35.7 mg/L (96 hr [mortality])
	Aquatic Plants EC50 Skeletonema costatum: 0.25 mg/L (72 hr [growth rate])
Propane-1,2-diol	Aquatic Invertebrates LC50 Ceriodaphnia dubia: 18,340 mg/L (48 hr [mortality])
	Fish LC50 Oncorhynchus mykiss: 40,613 mg/L (96 hr)
	Aquatic Plants EC50 Pseudokirchneriella subcapitata: 19,000 mg/L (96 hr [growth rate])

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])
2,2',2''-Nitrilotriethanol	Fish LC50 Pimephales promelas: 11,800 mg/L (96 hr)
	Aquatic Invertebrates EC50 Ceriodaphnia dubia: 609.88 mg/L (48 hr [mortality])
	Aquatic Plants EC50 Desmodesmus subspicatus: 216 mg/L (72 hr [growth rate])
Ethane-1,2-diol	Aquatic Plants EC50 Raphidocelis subcapitata: 6500 - 13,000 mg/L (96 hr [growth rate])
	Aquatic Invertebrates EC50 Daphnia magna: > 100 mg/L (48 hr)
	Fish LC50 Pimephales promelas: 72,860 mg/L (96 hr)
Sodium hydroxide	Fish LC50 Gambusia affinis: 125 mg/L (96 hr)
	Aquatic Invertebrates EC50 Ceriodaphnia sp.: 40.4 mg/L (48 hr [immobilization])
Sodium sulphate	Fish LC50 Pimephales promelas: 7960 mg/L (96 hr)
	Aquatic Invertebrates LC50 Daphnia magna: 1766 mg/L (48 hr)
Sodium Xylenesulfonate	Aquatic Plants EC50 Selenastrum capricornutum: >=758 mg/L (96 hr [growth rate; read-across])
	Fish LC50 Oncorhynchus mykiss: >=1580 mg/L (96 hr [read-across])
	Aquatic Invertebrates EC50 Daphnia magna: >1020 mg/L (48 hr [mobility; read-across])
Sulfuric acid	Aquatic Plants EC50 Algae: >100 mg/L (72 hr [growth rate])
	Fish LC50 Lepomis macrochirus: >16 - <28 mg/L (96 hr)
	Aquatic Invertebrates EC50 Daphnia magna: >100 mg/L (48 hr [mobility])
2,2'-iminodiethanol	Fish LC50 Oncorhynchus mykiss: 460 mg/L (96 hr)
	Aquatic Invertebrates EC50 Ceriodaphnia dubia: 30.1 mg/L (48 hr [mobility])
	Aquatic Plants EC50 Pseudokirchneriella subcapitata: 9.5 mg/L (72 h)

Chronic (Long-Term) Toxicity

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

Product Data: No data available.

Substance Data:

Name	Result
2,2',2''-Nitrilotriethanol	Aquatic Invertebrates NOEC Daphnia magna: 16 mg/L (21 d [mortality])
2-Butoxyethanol	Fish LC50 Poecilia reticulata: 983 mg/L (7 d)
	Aquatic Invertebrates EC50 Daphnia magna: 297 mg/L (21 d [reproduction])
Ethane-1,2-diol	Fish NOEC Menidia peninsulae: > 40 mg/L (28 d [mortality])
	Aquatic Invertebrates NOEC Daphnia magna: > 15,000 mg/L mg/L (21 d [reproduction])
Bronopol (INN) 2-bromo-2-nitropropane-1,3-diol	Fish NOEC Oncorhynchus mykiss: 21.5 mg/L (49 d [mortality])
	Aquatic Invertebrates NOEC Daphnia magna: 0.27 mg/L (21 d [overall])

Name	Result
Propane-1,2-diol	Aquatic Invertebrates NOEC Ceriodaphnia sp.: 13,020 mg/L (7 d [reproduction])
Sodium sulphate	Aquatic Invertebrates EC50 Ceriodaphnia dubia: 1698 mg/L (7 d [reproduction])
2,2'-iminodiethanol	Aquatic Invertebrates NOEC Daphnia magna: 0.78 mg/L (21 d)

Persistence and Degradability

Product Data: No data available.

Substance Data:

Name	Result
Bronopol (INN) 2-bromo-2-nitropropane-1,3-diol	This substance is readily biodegradable in water (70 - 80% degradation after 28 days, CO2 evolution).
Benzenesulfonic acid, C10-16-alkyl derivatives	Under test conditions no biodegradation observed.
Propane-1,2-diol	This substance is readily biodegradable . 81.7% degradation in water measured by CO2 evolution after 28 days.
2-Butoxyethanol	Readily biodegradable (90.4% degradation after 28 days, measured by CO2 evolution).
Ethane-1,2-diol	This substance is Readily biodegradable. 90-100% degradation in water, measured by DOC removal, after 10 days.
Sodium hydroxide	Persistence and degradability studies do not apply to inorganic substances.
2,2',2''-Nitrilotriethanol	The substance is readily biodegradable (100% degradation in 5 days, measured by CO2 evolution).
Sodium Xylenesulfonate	The substance is readily biodegradable. 83 - 85% degradation, measured by CO2 evolution, after 28 days.
2,2'-iminodiethanol	The substance is readily biodegradable. 93% degradation, measured by O2 consumption, after 28 days.

Bioaccumulative Potential

Product Data: No data available.

Substance Data:

Name	Result
2,2',2''-Nitrilotriethanol	Significant accumulation in organisms is not to be expected (BCF: < 3.9 L/kg).
Propane-1,2-diol	This substance is not expected to bioaccumulate (BCF: 0.09).
Ethane-1,2-diol	This substance is not expected to bioaccumulate (log Pow=: -1.93).
Bronopol (INN) 2-bromo-2-nitropropane-1,3-diol	Accumulation in organisms is not to be expected (BCF: 3.16, QSAR).
Sodium hydroxide	Bioaccumulation is not expected based on the substance's high water solubility. In addition, sodium is a naturally-occurring element that is prevalent in the environment and to which organisms are exposed regularly, for which they have some capacity to regulate the concentration in the organism.
2-Butoxyethanol	Not expected to bioaccumulate (log Kow = 0.83).
Sodium sulphate	This substance is not expected to bioaccumulate. It dissociates in water and the sulfate ion is easily reduced in the sulfur cycle.

Name	Result
2,2'-iminodiethanol	The substance is not expected to bioaccumulate (Log kow: -2.46; calculated BCF: 9.16 L/kg).

Mobility in Soil

Product Data: No data available.

Substance Data:

Name	Result
2,2',2''-Nitrilotriethanol	Substance is slightly mobile with high potential for adsorption to soil and sediment. (log Koc: 3.65 dimensionless).
Bronopol (INN) 2-bromo-2-nitropropane-1,3-diol	This substance is highly mobile; therefore, adsorption to soil is not expected (estimated Koc: 5).
Sodium hydroxide	The substance has a high water solubility. As the dilution of the substance increases, its speed of movement through soil increases. During movement through soil, some ion exchange will occur.
Propane-1,2-diol	This substance is highly mobile (calculated Koc: 2.9).
Sodium sulphate	This substance is not expected to adsorb onto soil or sediment. It dissociates in water and the sulfate ion is easily reduced in the sulfur cycle.
Ethane-1,2-diol	Adsorption to the solid soil phase is not expected.
2,2'-iminodiethanol	Substance is expected to be highly mobile (calculated log Koc: 0.99); therefore, adsorption to soil is not expected.

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:

Sodium sulphate	PBT assessment does not apply to inorganic substances.
Sulfuric acid	PBT assessment does not apply to inorganic substances.
2,2',2''-Nitrilotriethanol	The substance is not PBT.
Propane-1,2-diol	The substance is not PBT.
2-Butoxyethanol	The substance is not PBT.
Bronopol (INN) 2-bromo-2-nitropropane-1,3-diol	This substance is not PBT.
Sodium hydroxide	PBT assessment does not apply to inorganic substances.
Sodium Xylenesulfonate	The substance is not PBT.
Ethane-1,2-diol	The substance is not PBT.
2,2'-iminodiethanol	This substance is not PBT.

vPvB assessment:

Sodium sulphate	vPvB assessment does not apply to inorganic substances.
Sulfuric acid	vPvB assessment does not apply to inorganic substances.
2,2',2''-Nitrilotriethanol	The substance is not vPvB.
Propane-1,2-diol	The substance is not vPvB.
2-Butoxyethanol	The substance is not vPvB.

Bronopol (INN) 2-bromo-2-nitropropane-1,3-diol	This substance is not vPvB.
Sodium hydroxide	vPvB assessment does not apply to inorganic substances.
Sodium Xylenesulfonate	The substance is not vPvB.
Ethane-1,2-diol	The substance is not vPvB.
2,2'-iminodiethanol	This 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:

7664-93-9	Sulfuric acid	Listed

SARA Section 313 Toxic Chemicals:

111-76-2	2-Butoxyethanol	Listed
7664-93-9	Sulfuric acid	Listed
107-21-1	Ethane-1,2-diol	Listed
111-42-2	2,2'-iminodiethanol	Listed

CERCLA:

1310-73-2	Sodium hydroxide	Listed	1000 lb
111-76-2	2-Butoxyethanol	Listed	N/A
7664-93-9	Sulfuric acid	Listed	1000 lbs
107-21-1	Ethane-1,2-diol	Listed	5000 lbs
111-42-2	2,2'-iminodiethanol	Listed	100 lbs

RCRA: None of the ingredients are listed.

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

7664-93-9	Sulfuric acid	Listed
107-21-1	Ethane-1,2-diol	Listed

Massachusetts Right to Know:

7757-82-6	Sodium sulphate	Listed
7664-93-9	Sulfuric acid	Listed
107-21-1	Ethane-1,2-diol	Listed
1310-73-2	Sodium hydroxide	Listed
102-71-6	2,2',2''-Nitrilotriethanol	Listed
111-76-2	2-Butoxyethanol	Listed
111-42-2	2,2'-iminodiethanol	Listed

New Jersey Right to Know:

57-55-6	Propane-1,2-diol	Listed
7664-93-9	Sulfuric acid	Listed
107-21-1	Ethane-1,2-diol	Listed
1310-73-2	Sodium hydroxide	Listed
102-71-6	2,2',2''-Nitrilotriethanol	Listed
111-76-2	2-Butoxyethanol	Listed
111-42-2	2,2'-iminodiethanol	Listed

New York Right to Know:

7757-82-6	Sodium sulphate	Listed
7664-93-9	Sulfuric acid	Listed
107-21-1	Ethane-1,2-diol	Listed
1310-73-2	Sodium hydroxide	Listed
111-76-2	2-Butoxyethanol	Listed
111-42-2	2,2'-iminodiethanol	Listed

Pennsylvania Right to Know:

57-55-6	Propane-1,2-diol	Listed
7757-82-6	Sodium sulphate	Listed
7664-93-9	Sulfuric acid	Listed
107-21-1	Ethane-1,2-diol	Listed
1310-73-2	Sodium hydroxide	Listed
102-71-6	2,2',2''-Nitrilotriethanol	Listed
111-76-2	2-Butoxyethanol	Listed
111-42-2	2,2'-iminodiethanol	Listed

California Proposition 65:

⚠**WARNING:** This product can expose you to chemicals including Strong inorganic acid mists containing sulfuric acid and Diethanolamine which are known to the State of California to cause cancer. 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

Initial Preparation Date: 06.19.2019

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End of Safety Data Sheet