SAFETY DATA SHEET

BG Universal Cooling System Cleaner

Section 1. Identification

GHS product identifier : BG Universal Cooling System Cleaner

Product code : 540V00

Other means of identification : P540-xxxx; 540B; 5405; 5408; 540; 54032

Product type : Liquid.

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

Identified uses
Professional use of vehicle cleaning products

Supplier's details : BG Products Inc.
740 S. Wichita Street
Wichita, KS, 67213, USA
www.bgprod.com
316-266-8120
msds@bgprod.com

Emergency telephone number (with hours of operation) : (800) 424-9300 (CHEMTREC: CCN656479)
24-hour telephone and/or website

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : SKIN IRRITATION - Category 2
SERIOUS EYE DAMAGE - Category 1
TOXIC TO REPRODUCTION - Category 1B

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : Causes skin irritation.
Causes serious eye damage.
May damage fertility or the unborn child.

Precautionary statements

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Wash thoroughly after handling.

Response : IF exposed or concerned: Get medical advice or attention. IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice or attention. Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

Storage : Store locked up.

Section 2. Hazards identification

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified : None known.

Hazards identified when used : No known significant effects or critical hazards.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : P540-xxxx; 540B; 5405; 5408; 540; 54032

Ingredient name	Synonyms	%	Identifiers
tetrasodium ethylene diamine tetraacetate	Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, sodium salt (1:4); Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, tetrasodium salt; glycine, N, N′-1,2-ethanediylbis[N-(carboxymethyl)-, sodium salt (1:4); (ethylenedinitrilo)tetraacetic acid tetrasodium salt; Sodium EDTA; acetic acid, (ethylenedinitrilo)tetra-, tetrasodium salt; glycine, N, N′-1,2-ethanediylbis[N-(carboxymethyl)-, tetrasodium salt; Tetrasodium EDTA; tetrasodium ededate; EDTA tetrasodium salt; EDTA, TETRASODIUM	≥1 - ≤5	CAS: 64-02-8
citric acid	1,2,3-Propanetricarboxylic acid, 2-hydroxy-; 2-Hydroxy-1,2,3-propanetricarboxylic acid; 2-Hydroxypropane-1,2,3-tricarboxylic acid; product consisting of sucrose, citric acid and ascorbic acid; product consisting of sucrose and citric acid; E 330; β-hydroxytricarballylic acid; ACIDE CITRIQUE; beta-Hydroxytricarballylic acid; CITRIC ACID, ANHYDROUS; 2-hydroxy-1,2,3-propa-netricarboxylic acid; Anhydrous citric acid	≥1 - ≤5	CAS: 77-92-9
sodium hydroxide	caustic soda; Sodium hydroxide (Na(OH)); Sodium hydrate; Soda lye; Lye; sodium hydroxide, solid; sodium hydroxide, in aqueous solution; caustic soda, solid; caustic soda, in aqueous solution	≥1 - ≤5	CAS: 1310-73-2
sodium 4(or 5)-methyl-1H-benzotriazolide	1H-Benzotriazole, 6(or 7)-methyl-, sodium salt (1:1); 1H-Benzotriazole, 4(or 5)-methyl-, sodium salt; 1H-Benzotriazole, 6 (or 7)-methyl-, sodium salt; Tolyltriazole sodium; Tolyltriazole,	≥1 - ≤5	CAS: 64665-57-2

Section 3. Composition/information on ingredients

	sodium salt; 4(or 5)-Methyl-1H-benzotriazole sodium salt; Tolytriazole, sodium salt; 1-H-BENZOTRAIZOLE,4(OR 5) METHYL-SODIUM SALT; BENZOTRIAZOLE (1H), METHYL, SODIUM SALT; SODIUM TOLYLTRIAZOLE; TOLYLTRIAZOLE SODIUM SALT		
sodium xylenesulphonate	Benzenesulfonic acid, dimethyl-, sodium salt (1:1); Benzenesulfonic acid, dimethyl-, sodium salt; Xylenesulfonic acid, sodium salt; Benzenesulphonic acid, dimethyl-, sodium salt; Sodium dimethylbenzenesulfonate; Sodium Xylenesulfonate; Dimethylbenzenesulfonic acid, sodium salt; Salt (Na,K,Ca) of xylenesulfonic acid; dimethylbenzenesulfonate, sodium salt; benzenesulfonic acid (1-dimethyl) sodium salt; xylenesulfonate, sodium salt	≥1 - ≤5	CAS: 1300-72-7
disodium tetraborate decahydrate	borax decahydrate; Borax; Sodium tetraborate, decahydrate; Borates, tetra, sodium salts, Decahydrate; BORATES, TETRA, SODIUM SALTS DECAHYDRATE; Sodium Tetraborate Decahydrate; Sodium borate decahydrate; Borates, tetra, sodium salts (decahydrate); Borates, tetra, sodium salts: Decahydrate; disodium tetraborate decahydrate, other than natural borate of heading Nº 2528; sodium biborate decahydrate; sodium pyroborate decahydrate; E 285	≥0.1 - ≤1	CAS: 1303-96-4
trisodium nitrilotriacetate	Glycine, N,N-bis(carboxymethyl)-, sodium salt (1:3); Glycine, N,N-bis(carboxymethyl)-, trisodium salt; Nitrilotriacetic acid, trisodium salt; nitrilotriacetic acid trisodium salt; NITRILOTRIACETIC ACID (NTA) TRISODIUM; TRISODIUM 2,2',2''-NITRILOTRIACETATE; TRISODIUM N,N-BIS (CARBOXYMETHYL) GLYCINATE; TRISODIUM NITRILOTRIACETIC ACID; ACETIC ACID, NITRILOTRI-, TRISODIUM SALT; N,N-bis (Carboxymethyl)glycine sodium salt (1:3); N,N-bis(Carboxymethyl) glycine trisodium salt	≥0.1 - ≤1	CAS: 5064-31-3

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

Section 3. Composition/information on ingredients

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

Inhalation : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact : Get medical attention immediately. Call a poison center or physician. Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : No known significant effects or critical hazards.

Skin contact : Causes skin irritation.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Inhalation : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
reduced fetal weight
increase in fetal deaths
skeletal malformations

Section 4. First aid measures

Ingestion : Adverse symptoms may include the following:
stomach pains
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
sulfur oxides
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

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

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Section 6. Accidental release measures

Small spill : Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
tetrasodium ethylene diamine tetraacetate	None.
citric acid	None.
sodium hydroxide	**NIOSH REL (United States, 10/2020)** CEIL: 2 mg/m³. **CAL OSHA PEL (United States, 1/2025)** C: 2 mg/m³. **OSHA PEL (United States, 5/2018)** TWA 8 hours: 2 mg/m³. **OSHA PEL 1989 (United States, 3/1989)** CEIL: 2 mg/m³. **ACGIH TLV (United States, 1/2025)** C: 2 mg/m³.
sodium 4(or 5)-methyl-1H-benzotriazolide	None.
sodium xylenesulphonate	None.
disodium tetraborate decahydrate	**NIOSH REL (United States, 10/2020)** TWA 10 hours: 5 mg/m³. **CAL OSHA PEL (United States, 1/2025)** **[borates, tetra, sodium salts, decahydrate]** TWA 8 hours: 5 mg/m³. **OSHA PEL 1989 (United States, 3/1989)**

Section 8. Exposure controls/personal protection

	TWA 8 hours: 10 mg/m³. **ACGIH TLV (United States, 1/2025) [Borate compounds, Inorganic]** A4. TWA 8 hours: 2 mg/m³. Form: Inhalable fraction. STEL 15 minutes: 6 mg/m³. Form: Inhalable fraction.
trisodium nitrilotriacetate	None.

Biological exposure indices

No exposure indices known.

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. 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.

Body protection : 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.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state : Liquid.

Color : Green.

Odor : Sweet.

Section 9. Physical and chemical properties

Odor threshold : Not available.

pH : 10.25

Melting point/freezing point : -12°C (10.4°F)

Boiling point or initial boiling point and boiling range : Not available.

Flash point : Not available.

Evaporation rate : Not available.

Flammability : Not available.

Lower and upper explosion limit/flammability limit : Not available.

Vapor pressure : Not available.

Relative vapor density : Not available.

Relative density : 1.0642

Solubility(ies) :

Media	Result
cold water hot water	Easily soluble Easily soluble

Solubility in water : Not available.

Partition coefficient: n-octanol/water : Not applicable.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Dynamic (room temperature): Not available.
Kinematic (room temperature): Not available.
Kinematic (40°C (104°F)): Not available.

Flow time (ISO 2431) : Not available.

Particle characteristics

Median particle size : Not applicable.

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : No specific data.

Incompatible materials : No specific data.

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

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result
tetrasodium ethylene diamine tetraacetate	**Rat - Oral - LD50** 10 g/kg
citric acid	**Rat - Oral - LD50** 3 g/kg
sodium 4(or 5)-methyl-1H-benzotriazolide	**Rat - Oral - LD50** 640 mg/kg
disodium tetraborate decahydrate	**Rat - Oral - LD50** 2660 mg/kg
trisodium nitrilotriacetate	**Rat - Oral - LD50** 1100 mg/kg Toxic effects: Gastrointestinal - Nausea or vomiting

Conclusion/Summary [Product] : Not available.

Skin corrosion/irritation

Product/ingredient name	Result
tetrasodium ethylene diamine tetraacetate	**Rabbit - Skin - Moderate irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 500 mg
citric acid	**Rabbit - Skin - Mild irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 500 mg **Rabbit - Skin - Moderate irritant** Amount/concentration applied: 0.5 Ml
sodium hydroxide	**Human - Skin - Mild irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 2 % **Rabbit - Skin - Severe irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 500 mg **Human - Skin - Severe irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 10 pph
sodium 4(or 5)-methyl-1H-benzotriazolide	**Rabbit - Skin - Severe irritant** Amount/concentration applied: 50 %

Conclusion/Summary [Product] : Not available.

Serious eye damage/eye irritation

Product/ingredient name	Result
tetrasodium ethylene diamine tetraacetate	**Rabbit - Eyes - Moderate irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 100 mg
citric acid	**Rabbit - Eyes - Severe irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 750 ug
sodium hydroxide	**Monkey - Eyes - Severe irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 1 % **Rabbit - Eyes - Mild irritant** Amount/concentration applied: 400 ug **Rabbit - Eyes - Severe irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 50 ug

Section 11. Toxicological information

Rabbit - Eyes - Severe irritant
Amount/concentration applied: 1 %
Rabbit - Eyes - Severe irritant
Duration of treatment/exposure: 24 hours
Amount/concentration applied: 1 mg
Rabbit - Eyes - Severe irritant
Duration of treatment/exposure: 0.5 minutes
Amount/concentration applied: 1 mg

Conclusion/Summary [Product] : Not available.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary [Product] : Not available.

Respiratory or skin sensitization

Not available.

Skin

Conclusion/Summary [Product] : Not available.

Respiratory

Conclusion/Summary [Product] : Not available.

Germ cell mutagenicity

Not available.

Conclusion/Summary [Product] : Not available.

Carcinogenicity

Not available.

Conclusion/Summary [Product] : Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
trisodium nitrilotriacetate	-	2B	-

Reproductive toxicity

Not available.

Conclusion/Summary [Product] : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name **Result**

Section 11. Toxicological information

citric acid	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
sodium 4(or 5)-methyl-1H-benzotriazolide	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure

Not available.

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : No known significant effects or critical hazards.

Skin contact : Causes skin irritation.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Inhalation : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
stomach pains
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Section 11. Toxicological information

Conclusion/Summary [Product] : Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : May damage fertility or the unborn child.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
BG Universal Cooling System Cleaner	9857.7	N/A	N/A	83.3	N/A
tetrasodium ethylene diamine tetraacetate	500	N/A	N/A	3	N/A
citric acid	3000	N/A	N/A	N/A	N/A
sodium 4(or 5)-methyl-1H-benzotriazolide	640	N/A	N/A	N/A	N/A
disodium tetraborate decahydrate	2660	N/A	N/A	N/A	N/A
trisodium nitrilotriacetate	1100	N/A	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result
tetrasodium ethylene diamine tetraacetate	**Acute - LC50 - Fresh water** Fish - Bluegill - *Lepomis macrochirus* Size: 34 mm; Weight: 0.74 g 486 mg/l [96 hours] Effect: Mortality
citric acid	**Acute - LC50 - Marine water** Crustaceans - Green crab - *Carcinus maenas* - Adult 160 mg/l [48 hours] Effect: Mortality
sodium hydroxide	**Acute - LC50 - Fresh water** Fish - Western mosquitofish - *Gambusia affinis* - Adult 125 ppm [96 hours] Effect: Mortality **Acute - EC50 - Fresh water** Crustaceans - Water flea - *Ceriodaphnia dubia* - Neonate Age: <24 hours 40.38 mg/l [48 hours] Effect: Intoxication
disodium tetraborate decahydrate	**Acute - EC50 - Fresh water** Crustaceans - Ostracod - *Cypris subglobosa* 1645 mg/l [48 hours] Effect: Intoxication
trisodium nitrilotriacetate	**Acute - LC50 - Fresh water** Fish - Rainbow trout,donaldson trout - *Oncorhynchus mykiss* 98 mg/l [96 hours] Effect: Mortality **Acute - LC50 - Fresh water** Daphnia - Water flea - *Daphnia magna* Age: 1 days 560 to 1000 mg/l [48 hours] Effect: Mortality

Section 12. Ecological information

Acute - LC50 - Fresh water
Algae - Diatom - *Navicula seminulum*
185 mg/l [96 hours]
Effect: Mortality
Chronic - NOEC - Fresh water
Daphnia - Water flea - *Daphnia magna*
Age: 1 days
100 mg/l [21 days]
Effect: Mortality
Chronic - NOEC - Fresh water
Algae - Algae - *Algae* - Exponential growth phase
100 mg/l [96 hours]
Effect: Population

Conclusion/Summary [Product] : Not available.

Persistence and degradability

Not available.

Conclusion/Summary [Product] : Not available.

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
tetrasodium ethylene diamine tetraacetate	5.01	1.8	Low
citric acid	-1.8	-	Low
sodium xylenesulphonate	-3.12	-	Low
trisodium nitrilotriacetate	-2.62	-	Low

Mobility in soil

Soil/Water partition coefficient : Not available.

Other adverse effects

No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	ADR/RID	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-	-	-
Transport hazard class(es)	-	-	-	-	-	-
Packing group	-	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.	No.

Additional information

DOT Classification : **Reportable quantity** 42290.5 lbs / 19199.9 kg [4766.1 gal / 18041.6 L]. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

U.S. Federal regulations

TSCA 4(a) proposed test rules: sodium 4(or 5)-methyl-1H-benzotriazolide

TSCA 8(a) CDR Exempt/Partial exemption: Not determined

Clean Water Act (CWA) 311: Preparations containing sodium hydroxide. (except for preparations which contain 5% or less of sodium hydroxide)

TSCA 12(b) - Chemical export notification

Not applicable.

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Section 15. Regulatory information

Classification : SKIN IRRITATION - Category 2
SERIOUS EYE DAMAGE - Category 1
TOXIC TO REPRODUCTION - Category 1B

Composition/information on ingredients

Name	%	Classification
tetrasodium ethylene diamine tetraacetate	≥1 - ≤5	ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (inhalation) - Category 3 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A
citric acid	≥1 - ≤5	EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
sodium hydroxide	≥1 - ≤5	SKIN CORROSION - Category 1B
sodium 4(or 5)-methyl-1H-benzotriazolide	≥1 - ≤5	ACUTE TOXICITY (oral) - Category 4 SKIN CORROSION - Category 1C SERIOUS EYE DAMAGE - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
sodium xylenesulphonate	≥1 - ≤5	EYE IRRITATION - Category 2A
disodium tetraborate decahydrate	≥0.1 - ≤1	TOXIC TO REPRODUCTION - Category 1B
trisodium nitrilotriacetate	≥0.1 - ≤1	COMBUSTIBLE DUSTS ACUTE TOXICITY (oral) - Category 4 EYE IRRITATION - Category 2A CARCINOGENICITY - Category 2

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	trisodium nitrilotriacetate	5064-31-3	≥0.1 - ≤1
Supplier notification	trisodium nitrilotriacetate	5064-31-3	≥0.1 - ≤1

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts : The following components are listed: SODIUM HYDROXIDE

New York : The following components are listed: Sodium hydroxide

New Jersey : The following components are listed: SODIUM HYDROXIDE

Pennsylvania : The following components are listed: SODIUM HYDROXIDE

California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

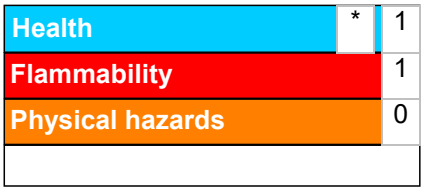
Section 15. Regulatory information

Inventory list

Australia	:	All components are listed or exempted.
Canada	:	All components are listed or exempted.
China	:	All components are listed or exempted.
Eurasian Economic Union	:	**Russian Federation inventory**: Not determined.
Japan	:	**Japan inventory (CSCL)**: At least one component is not listed. **Japan inventory (ISHL)**: Not determined.
New Zealand	:	Not determined.
Philippines	:	All components are listed or exempted.
Republic of Korea	:	At least one component is not listed.
Taiwan	:	All components are listed or exempted.
Thailand	:	All components are listed or exempted.
Turkey	:	Not determined.
United States	:	All components are active or exempted.
Viet Nam	:	All components are listed or exempted.

Section 16. Other information

Hazardous Material Information System (U.S.A.)



Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)

Procedure used to derive the classification

Classification	Justification
SKIN IRRITATION - Category 2	Calculation method
SERIOUS EYE DAMAGE - Category 1	Calculation method
TOXIC TO REPRODUCTION - Category 1B	Calculation method

History

Date of printing	:	4/9/2026
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Date of previous issue	:	4/9/2026
Version	:	5.03
Formulation Version number	:	16b

Section 16. Other information

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

References : Not available.

Indicates information that has changed from previously issued version.

Notice to reader

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.