SAFETY DATA SHEET

Revision date 26-January-2021

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1. Identification	
Product identifier	
Product Name	BROMOACETIC ACID
Other means of identification	
Product Code(s)	B2042
UN/ID no	UN3425
Synonyms	None
Recommended use of the chemical and restrictions on use	
Recommended use	No information available
Restrictions on use	No information available
Details of the supplier of the safety data sheet	
<u>Supplier Address</u> Spectrum Chemical Mfg. Corp. 14422 South San Pedro St. Gardena, CA 90248 (310) 516-8000	
Emergency telephone number	
Emergency Telephone	Chemtrec 1-800-424-9300

2. Hazard(s) identification

Classification

Acute toxicity - Oral	Category 2
Acute toxicity - Dermal	Category 2
Acute toxicity - Inhalation (Gases)	Category 3
Acute toxicity - Inhalation (Vapors)	Category 3
Acute toxicity - Inhalation (Dusts/Mists)	Category 3
Skin corrosion/irritation	Category 1 Sub-category A
Serious eye damage/eye irritation	Category 1
Corrosive to metals	Category 1

Hazards not otherwise classified (HNOC)

Not applicable

Label elements



Revision Number 1

Hazard statements Fatal if swallowed Fatal in contact with skin Toxic if inhaled Causes severe skin burns and eye damage May be corrosive to metals



Physical state Solid

Odor Odorless

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling Do not eat, drink or smoke when using this product Do not get in eyes, on skin, or on clothing Use only outdoors or in a well-ventilated area Do not breathe dusts or mists Wear protective gloves/protective clothing/eye protection/face protection Keep only in original container

Precautionary Statements - Response

Immediately call a POISON CENTER or doctor 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 Immediately call a POISON CENTER or doctor IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower Wash contaminated clothing before reuse IF INHALED: Remove person to fresh air and keep comfortable for breathing Immediately call a POISON CENTER or doctor IF SWALLOWED: Immediately call a POISON CENTER or doctor Rinse mouth Do NOT induce vomiting Absorb spillage to prevent material damage

Precautionary Statements - Storage

Store locked up. Store in a well-ventilated place. Keep container tightly closed Store in corrosive resistant/ .? container with a resistant inner liner

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Unknown acute toxicity

Other information

No information available.

3. Composition/information on ingredients

Substance

Chemical name	CAS No	Weight-%	Trade secret
Bromoacetic Acid	79-08-3	100	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First-aid measures

Description of first aid measures

General advice	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.	
Inhalation	Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur. Get immediate medical advice/attention. Do not breathe dust.	
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get immediate medical advice/attention.	
Skin contact	Get immediate medical advice/attention. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.	
Ingestion	Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Get immediate medical advice/attention.	
Self-protection of the first aider	Avoid contact with skin, eyes or clothing. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Do not breathe dust. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Use personal protective equipment as required. See section 8 for more information.	
Most important symptoms and effects, both acute and delayed		
Symptoms	Burning sensation. Coughing and/ or wheezing. Difficulty in breathing.	
Indication of any immediate medical attention and special treatment needed		
Note to physicians	Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure.	

5. Fire-fighting measures

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.	
Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.	
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.	
Specific hazards arising from the chemical	The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors.	
Explosion data Sensitivity to mechanical impact none.		
Sensitivity to static discharge	none.	
Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.	

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Attention! Corrosive material. Keep people away from and upwind of spill/leak. Avoid generation of dust. Do not breathe dust.	
Other information	Refer to protective measures listed in Sections 7 and 8.	
Methods and material for containment and cleaning up		
Methods for containment	Prevent further leakage or spillage if safe to do so.	
Methods for cleaning up	Pick up and transfer to properly labeled containers.	

7. Handling and storage

Precautions for safe handling

Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Take off contaminated clothing and wash before reuse. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product. Do not breathe dust. Avoid generation of dust.
Conditions for safe storage, including any incompatibilities	

Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place. Hygroscopic. It
	absorbs moisture from the air. Protect from moisture. Store locked up. Keep out of the
	reach of children. Store away from other materials.

8. Exposure controls/personal protection

Control parameters

Exposure Limits	The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here.	
Appropriate engineering controls		
Engineering controls	Showers Eyewash stations Ventilation systems.	
Individual protection measures, such as personal protective equipment		
Eye/face protection	Tight sealing safety goggles. Face protection shield.	
Hand protection	Wear suitable gloves. Impervious gloves.	
Skin and body protection	Impervious clothing. Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.	
Respiratory protection	Use appropriate respiratory protection. Be sure to use an approved/certified respirator or	

equivalent.

General hygiene considerations

Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Do not breathe dust. Be sure to use an approved/certified respirator or equivalent. Take off contaminated clothing and wash before reuse.

9. Physical and chemical properties

Information on basic physical and o Physical state Appearance Color Odor Odor Odor threshold	chemical properties Solid Crystalline powder White; Yellow Odorless No information available	
<u>Property</u> pH Melting point / freezing point Boiling point / boiling range Flash point Evaporation rate	<u>Values</u> no data available 50 °C / 122 °F 208 °C / 406.4 °F 113 °C / 235.4 °F no data available	Remarks • Method None known None known None known None known None known
Flammability (solid, gas) Flammability Limit in Air Upper flammability or explosive limits	no data available No data available	None known None known
Lower flammability or explosive limits Vapor pressure	No data available No data available	None known
Vapor density Relative density Water solubility	6.05 1.934 No data available	None known None known None known
Solubility(ies) Partition coefficient	no data available log Pow = 0.41 no data available	None known None known None known
Autoignition temperature Decomposition temperature Kinematic viscosity Dynamic viscosity	no data available No data available	None known None known None known None known
Other information Explosive properties	No information available	
Oxidizing properties Softening point Molecular weight VOC Content (%) Liquid Density Bulk density	No information available No information available 138.95 No information available No information available No information available	

10. Stability and reactivity

Reactivity	No information available.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	Exposure to air or moisture over prolonged periods. Excessive heat.
Incompatible materials	Oxidizing agent. Acids. Bases.

11. Toxicological information

Information on likely routes of exposure

Product Information	
Inhalation	Specific test data for the substance or mixture is not available. Corrosive by inhalation. (based on components). Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs. Pulmonary edema can be fatal. Toxic by inhalation.
Eye contact	Specific test data for the substance or mixture is not available. Causes serious eye damage. (based on components). Corrosive to the eyes and may cause severe damage including blindness. May cause irreversible damage to eyes.
Skin contact	Specific test data for the substance or mixture is not available. Fatal in contact with skin. (based on components). Corrosive. Causes burns.
Ingestion	Specific test data for the substance or mixture is not available. Causes burns. (based on components). Ingestion causes burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung damage if swallowed. Fatal if swallowed.
Symptoms related to the physica	al, chemical and toxicological characteristics

Symptoms Redness. Burning. May cause blindness. Coughing and/ or wheezing. Difficulty in breathing.

Acute toxicity

Numerical measures of toxicity

Unknown acute toxicity

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Bromoacetic Acid 79-08-3	= 50 mg/kg (Rat)	= 100 mg/kg (Rat)	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Serious eye damage/eye irritation	Classification based on data available for ingredients. Causes burns. Classification based on data available for ingredients. Risk of serious damage to eyes. Causes burns.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.
Other adverse effects	No information available.
Interactive effects	No information available.

12. Ecological information

Ecotoxicity

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Algae/aquatic plants	FISN	I OXICITY TO	Crustacea
		microorganisms	
-	LC50: =103mg/L (96h,	-	-
	Danio rerio)		
	Algae/aquatic plants	- LC50: =103mg/L (96h,	- LC50: =103mg/L (96h, -

Persistence and degradability	No information available.
Bioaccumulation	Inherently biodegradable.

Other adverse effects No information available.

13. Disposal considerations

Waste treatment methods

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.

14. Transport information

DOT

DOT	
UN/ID no Proper Shipping Name: Hazard class Packing group: Special Provisions Marine Pollutant Description: Emergency Response Guide Number	UN3425 Bromoacetic acid, solid 8 II A7, IB8, IP2, IP4, N34, T3, TP33 Severe Marine Pollutant UN3425, Bromoacetic acid, solid, 8, II 156
<u>TDG</u> UN-No: Proper Shipping Name: Hazard class Packing Group: Description:	UN3425 Bromoacetic acid, solid 8 II UN3425, Bromoacetic acid, solid, 8, II
<u>MEX</u> UN-No Proper Shipping Name Hazard class Packing Group Description	UN3425 Bromoacetic acid, solid 8 II UN3425, Bromoacetic acid, solid, 8, II
ICAO (air) UN-No: Proper Shipping Name: Hazard class Packing Group: Description:	UN3425 Bromoacetic acid, solid 8 II UN3425, Bromoacetic acid, solid, 8, II
IATA_ UN number	UN3425

Proper Shipping Name: Transport hazard class(es) Packing group Description:	Bromoacetic acid, solid 8 II UN3425, Bromoacetic acid, solid, 8, II
IMDG UN number Proper shipping name Transport hazard class(es) Packing group EmS-No Marine pollutant Description	UN3425 Bromoacetic Acid, solid 8 II F-A, S-B P UN3425, Bromoacetic Acid, solid, 8, II, Marine pollutant
<u>RID</u> UN number Proper Shipping Name: Transport hazard class(es) Packing group Classification code Description: Labels	UN3425 Bromoacetic acid, solid 8 II C4 UN3425, Bromoacetic acid, solid, 8, II, ENVIRONMENTALLY HAZARDOUS 8
ADR UN number Proper Shipping Name: Transport hazard class(es) Packing group Classification code Tunnel restriction code Description: Labels	3425 Bromoacetic acid, solid 8 II C4 (E) 3425, Bromoacetic acid, solid, 8, II, (E), ENVIRONMENTALLY HAZARDOUS 8
ADN UN/ID No Proper shipping name Transport hazard class(es) Packing Group Classification code Description Hazard label(s) Limited quantity (LQ) Equipment Requirements	UN3425 Bromoacetic acid, solid 8 II C4 UN3425, Bromoacetic acid, solid, 8, II, ENVIRONMENTALLY HAZARDOUS 8 1 kg PP, EP

15. Regulatory information

International Inventories

TSCA

Complies

DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	This product complies with ENCS:
IECSC	This product complies with China:
KECL	Complies
PICCS	Complies
AICS	All the constituents of this material are listed on the Australian Inventory of Chemical
AICS	All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

Legend:

 TSCA
 - United States Toxic Substances Control Act Section 8(b) Inventory

 DSL/NDSL
 - Canadian Domestic Substances List/Non-Domestic Substances List

 EINECS/ELINCS
 - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

- IECSC China Inventory of Existing Chemical Substances
- KECL Korean Existing and Evaluated Chemical Substances
- **PICCS** Philippines Inventory of Chemicals and Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated under applicable state right-to-know regulations

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

NFPA			
Health hazards 4			
Flammability 1			
Instability 0			
Physical and che	mical properties -		
HMIS			
Health hazards 3	5		
Flammability 1			
Physical hazards	0		
Personal protection	on X		
Key or legend to a	abbreviations and acronyms used in the sa	fety data sheet	
Legend Section 8	3: EXPOSURE CONTROLS/PERSONAL PRO	TECTION	
TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value		

Key literature references and sources for data used to compile the SDS Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database European Food Safety Authority (EFSA) EPA (Environmental Protection Agency) Acute Exposure Guideline Level(s) (AEGL(s)) U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act U.S. Environmental Protection Agency High Production Volume Chemicals Food Research Journal Hazardous Substance Database International Uniform Chemical Information Database (IUCLID) Japan GHS Classification Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS) NIOSH (National Institute for Occupational Safety and Health) National Library of Medicine's ChemID Plus (NLM CIP) National Library of Medicine's PubMed database (NLM PUBMED) National Toxicology Program (NTP) New Zealand's Chemical Classification and Information Database (CCID) Organization for Economic Co-operation and Development Environment, Health, and Safety Publications Organization for Economic Co-operation and Development High Production Volume Chemicals Program Organization for Economic Co-operation and Development Screening Information Data Set World Health Organization 26 6 R 2021

Revision date	26-January-2021
Revision Note	No information available.
Disclaimer	

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release 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 or in any process, unless specified in the text.

End of Safety Data Sheet