Chemical Safety Data Sheet MSDS / SDS

2-BROMO-3-CHLORO-1-PROPENE

Revision Date:2023-06-03 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

: 2-BROMO-3-CHLORO-1-PROPENE		
: CB8173168		
: 16400-63-8		
: 240-452-8		
: 2-bromo-3-chloroprop-1-ene,2-BROMO-3-CHLORO-1-PROPENE		
Relevant identified uses of the substance or mixture and uses advised against		
: For R&D use only. Not for medicinal, household or other use.		
: none		
Company Identification		
: Chemicalbook		
: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing		
: 400-158-6606		

SECTION 2: Hazards identification

Classification of the substance or mixture

Flammable liquids, Category 3 Acute toxicity - Category 4, Oral Skin irritation, Category 2 Serious eye damage, Category 1 Specific target organ toxicity – single exposure, Category 3

Label elements

Pictogram(s)

Signal word

Danger

Hazard statement(s)

H226 Flammable liquid and vapour

H302 Harmful if swallowed

H315 Causes skin irritation

H318 Causes serious eye damage

1

H335 May cause respiratory irritation

Precautionary statement(s)

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

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.

Continuerinsing.

Prevention

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233 Keep container tightly closed.

P240 Ground and bond container and receiving equipment.

P241 Use explosion-proof [electrical/ventilating/lighting/...] equipment.

P242 Use non-sparking tools.

P243 Take action to prevent static discharges.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...

P264 Wash ... thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P271 Use only outdoors or in a well-ventilated area.

Response

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water [or shower].

P370+P378 In case of fire: Use ... to extinguish.

P301+P317 IF SWALLOWED: Get medical help.

P330 Rinse mouth.

P302+P352 IF ON SKIN: Wash with plenty of water/...

P321 Specific treatment (see ... on this label).

P332+P317 If skin irritation occurs: Get medical help.

P362+P364 Take off contaminated clothing and wash it before reuse.

P305+P354+P338 IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P317 Get medical help.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P319 Get medical help if you feel unwell.

Storage

P403+P235 Store in a well-ventilated place. Keep cool.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

Disposal

P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Other hazards

no data available

SECTION 3: Composition/information on ingredients

Substance

Product name	: 2-BROMO-3-CHLORO-1-PROPENE
Synonyms	: 2-bromo-3-chloroprop-1-ene,2-BROMO-3-CHLORO-1-PROPENE
CAS	: 16400-63-8
EC number	: 240-452-8
MF	: C3H4BrCl
MW	: 155.42

SECTION 4: First aid measures

Description of first aid measures

lf inhaled

Move the victim into fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and consult a doctor immediately. Do not use mouth to mouth resuscitation if the victim ingested or inhaled the chemical.

Following skin contact

Take off contaminated clothing immediately. Wash off with soap and plenty of water. Consult a doctor.

Following eye contact

Rinse with pure water for at least 15 minutes. Consult a doctor.

Following ingestion

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.

Most important symptoms and effects, both acute and delayed

no data available

Indication of any immediate medical attention and special treatment needed

no data available

SECTION 5: Firefighting measures

Extinguishing media

Use dry chemical, carbon dioxide or alcohol-resistant foam.

Specific Hazards Arising from the Chemical

no data available

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing mist, gas or vapours. Avoid contacting with skin and eye. Use personal protective equipment. Wear chemical impermeable gloves. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Environmental precautions

Prevent further spillage or leakage if it is safe to do so. Do not let the chemical enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use sparkproof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

SECTION 7: Handling and storage

Precautions for safe handling

Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

Conditions for safe storage, including any incompatibilities

Store the container tightly closed in a dry, cool and well-ventilated place. Store apart from foodstuff containers or incompatible materials.

SECTION 8: Exposure controls/personal protection

Control parameters

Occupational Exposure limit values

no data available

Biological limit values

no data available

Exposure controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the riskelimination area.

Individual protection measures

Eye/face protection

Wear tightly fitting safety goggles with side-shields conforming to EN 166(EU) or NIOSH (US).

Skin protection

Wear fire/flame resistant and impervious clothing. Handle with gloves. Gloves must be inspected prior to use. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Respiratory protection

If the exposure limits are exceeded, irritation or other symptoms are experienced, use a full-face respirator.

Thermal hazards

no data available

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Colourno data availableOdourno data availableMelting point/freezing pointno data availableBoiling point or initial boiling point and75-80°C/450mmHgboiling rangeno data availableFlammabilityno data availableLower and upper explosionno data availableImit/flammability limitno data availableFlash point37°CAuto-ignition temperatureno data availableDecomposition temperatureno data availablePHno data availableKinematic viscosityno data availableSolubilityno data availablePartition coefficient n-octanol/waterno data availableVapour pressure1.6343g/mLat25°CPolotion upper upper doeityno data available	Physical state	no data available
Melting point/freezing pointno data availableBoiling point or initial boiling point and75-80°C/450mmHgboiling rangeFlammabilityno data availableLower and upper explosionno data availablelimit/flammability limitFlash point37°CAuto-ignition temperatureno data availableDecomposition temperatureno data availablepHno data availableKinematic viscosityno data availableSolubilityno data availablePartition coefficient n-octanol/waterno data availableVapour pressure14.3mmHg at 25°CDensity and/or relative density1.6343g/mLat25°C	Colour	no data available
Boiling point or initial boiling point and75-80°C/450mmHgboiling rangeno data availableFlammabilityno data availableLower and upper explosionno data availablelimit/flammability limit17°CFlash point37°CAuto-ignition temperatureno data availableDecomposition temperatureno data availablepHno data availableKinematic viscosityno data availableSolubilityno data availablePartition coefficient n-octanol/waterno data availableVapour pressure14.3mmHg at 25°CDensity and/or relative density1.6343g/mLat25°C	Odour	no data available
boiling range Flammability no data available Lower and upper explosion no data available limit/flammability limit imit/flammability limit Flash point 37°C Auto-ignition temperature no data available Decomposition temperature no data available pH no data available Kinematic viscosity no data available Solubility no data available Partition coefficient n-octanol/water no data available Vapour pressure 14.3mmHg at 25°C Density and/or relative density 1.6343g/mLat25°C	Melting point/freezing point	no data available
Flammabilityno data availableLower and upper explosionno data availablelimit/flammability limit37°CFlash point37°CAuto-ignition temperatureno data availableDecomposition temperatureno data availablepHno data availableKinematic viscosityno data availableSolubilityno data availablePartition coefficient n-octanol/waterno data availableVapour pressure14.3mmHg at 25°CDensity and/or relative density1.6343g/mLat25°C	Boiling point or initial boiling point and	75-80°C/450mmHg
Lower and upper explosionno data availablelimit/flammability limitFlash point37°CAuto-ignition temperatureno data availableDecomposition temperatureno data availablepHno data availableKinematic viscosityno data availableSolubilityno data availablePartition coefficient n-octanol/waterno data availableVapour pressure1.6343g/mLat25°C	boiling range	
Imit/flammability limitFlash point37°CAuto-ignition temperatureno data availableDecomposition temperatureno data availablepHno data availableKinematic viscosityno data availableSolubilityno data availablePartition coefficient n-octanol/waterno data availableVapour pressure14.3mmHg at 25°CDensity and/or relative density1.6343g/mLat25°C	Flammability	no data available
Flash point37°CAuto-ignition temperatureno data availableDecomposition temperatureno data availablepHno data availableKinematic viscosityno data availableSolubilityno data availablePartition coefficient n-octanol/waterno data availableVapour pressure14.3mmHg at 25°CDensity and/or relative density1.6343g/mLat25°C	Lower and upper explosion	no data available
Auto-ignition temperatureno data availableDecomposition temperatureno data availablepHno data availableKinematic viscosityno data availableSolubilityno data availablePartition coefficient n-octanol/waterno data availableVapour pressure14.3mmHg at 25°CDensity and/or relative density1.6343g/mLat25°C	limit/flammability limit	
Decomposition temperatureno data availablepHno data availableKinematic viscosityno data availableSolubilityno data availablePartition coefficient n-octanol/waterno data availableVapour pressure14.3mmHg at 25°CDensity and/or relative density1.6343g/mLat25°C	Flash point	37°C
pHno data availableKinematic viscosityno data availableSolubilityno data availablePartition coefficient n-octanol/waterno data availableVapour pressure14.3mmHg at 25°CDensity and/or relative density1.6343g/mLat25°C	Auto-ignition temperature	no data available
Kinematic viscosityno data availableSolubilityno data availablePartition coefficient n-octanol/waterno data availableVapour pressure14.3mmHg at 25°CDensity and/or relative density1.6343g/mLat25°C	Decomposition temperature	no data available
Solubilityno data availablePartition coefficient n-octanol/waterno data availableVapour pressure14.3mmHg at 25°CDensity and/or relative density1.6343g/mLat25°C	рН	no data available
Partition coefficient n-octanol/water no data available Vapour pressure 14.3mmHg at 25°C Density and/or relative density 1.6343g/mLat25°C	Kinematic viscosity	no data available
Vapour pressure14.3mmHg at 25°CDensity and/or relative density1.6343g/mLat25°C	Solubility	no data available
Density and/or relative density 1.6343g/mLat25°C	Partition coefficient n-octanol/water	no data available
	Vapour pressure	14.3mmHg at 25°C
Polativo vopour density no polata available	Density and/or relative density	1.6343g/mLat25°C
	Relative vapour density	no data available
Particle characteristics no data available	Particle characteristics	no data available

SECTION 10: Stability and reactivity

Reactivity

no data available

Chemical stability

no data available

Possibility of hazardous reactions

no data available

Conditions to avoid

Incompatible materials

no data available

Hazardous decomposition products

no data available

SECTION 11: Toxicological information

Acute toxicity

- Oral: no data available
- Inhalation: no data available
- Dermal: no data available

Skin corrosion/irritation

no data available

Serious eye damage/irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

no data available

Reproductive toxicity

no data available

STOT-single exposure

no data available

STOT-repeated exposure

no data available

Aspiration hazard

no data available

SECTION 12: Ecological information

Toxicity

Toxicity to fish: no data available

Toxicity to daphnia and other aquatic invertebrates: no data available

Toxicity to algae: no data available

Toxicity to microorganisms: no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

Other adverse effects

no data available

SECTION 13: Disposal considerations

Disposal methods

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

SECTION 14: Transport information

UN Number

ADR/RID: UN1993 (For reference only, please check.) IMDG: UN1993 (For reference only, please check.) IATA: UN1993 (For reference only, please check.)

UN Proper Shipping Name

ADR/RID: FLAMMABLE LIQUID, N.O.S. (For reference only, please check.) IMDG: FLAMMABLE LIQUID, N.O.S. (For reference only, please check.) IATA: FLAMMABLE LIQUID, N.O.S. (For reference only, please check.)

Transport hazard class(es)

ADR/RID: 3 (For reference only, please check.) IMDG: 3 (For reference only, please check.) IATA: 3 (For reference only, please check.)

Packing group, if applicable

ADR/RID: I (For reference only, please check.) IMDG: I (For reference only, please check.) IATA: I (For reference only, please check.)

Environmental hazards

ADR/RID: No IMDG: No

IATA: No

Special precautions for user

no data available

Transport in bulk according to IMO instruments

no data available

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

European Inventory of Existing Commercial Chemical Substances (EINECS) Listed. EC Inventory Listed. United States Toxic Substances Control Act (TSCA) Inventory Not Listed. China Catalog of Hazardous chemicals 2015 Not Listed. New Zealand Inventory of Chemicals (NZIoC) Not Listed. PICCS Not Listed. Vietnam National Chemical Inventory Not Listed. IECSC Not Listed. Korea Existing Chemicals List (KECL) Not Listed.

SECTION 16: Other information

Abbreviations and acronyms

CAS: Chemical Abstracts Service ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road RID: Regulation concerning the International Carriage of Dangerous Goods by Rail IMDG: International Maritime Dangerous Goods IATA: International Air Transportation Association TWA: Time Weighted Average STEL: Short term exposure limit LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

References

IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?

pageID=0&request_locale=en

CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

ChemlDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

ECHA - European Chemicals Agency, website: https://echa.europa.eu/

Disclaimer:

The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.