

Safety data sheet

according to 1907/2006/EC, Article 31

Revision: 19.05.2011

Printing date 20.05.2011

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

Product identifier

Trade name

2-Bromoethyl isothiocyanate

Stock number:

L19246

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

Sector of Use

SU24 Scientific research and development

Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Alfa Aesar GmbH & Co.KG
A Johnson Matthey Company
Benzstrasse 3
D-76185 Karlsruhe / Germany
Tel: +49 (0) 721 84007 280
Fax: +49 (0) 721 84007 300
Email: tech@alfa.com
www.alfa.com

Informing department:

Product safety department.

Emergency telephone number:

Product Safety Department +049 (0) 7275 988687-0 (business hours)
Carechem 24: +44 (0) 1235 239 670 (Multi-language 24 hour emergency)
Giftnotruf Universität Mainz / Poison Information Center Mainz
www.giftinfo.uni-mainz.de Telefon: +49(0)6131/19240

2 Hazards identification

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS05 corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H312 Harmful in contact with skin.

Acute Tox. 4 H332 Harmful if inhaled.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC



C; Corrosive

R34: Causes burns.



Xn; Harmful

R20/21/22: Harmful by inhalation, in contact with skin and if swallowed.

Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms

The substance is classified and labelled according to the CLP regulation.



GHS05 GHS07

Signal word

Hazard statements

Danger

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H332 Harmful if inhaled.

H314 Causes severe skin burns and eye damage.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards

Results of PBT and vPvB assessment

PBT:

Not applicable.

vPvB:

Not applicable.

3 Composition/information on ingredients

Chemical characterization: Substances

(CAS#) Designation:

2-Bromoethyl isothiocyanate (CAS# 1483-41-6): 100%

4 First aid measures

Description of first aid measures

After inhalation

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

After skin contact

Seek immediate medical advice.

Instantly wash with water and soap and rinse thoroughly.

After eye contact

Seek immediate medical advice.

After swallowing

Rinse opened eye for several minutes under running water. Then consult doctor.

Seek immediate medical advice.

5 Firefighting measures

Extinguishing media

Suitable extinguishing agents

CO2, sand, extinguishing powder. Do not use water.

For safety reasons unsuitable extinguishing agents

Water.

Special hazards arising from the substance or mixture

Can be released in case of fire:
Carbon monoxide and carbon dioxide
Hydrogen bromide (HBr)
Nitrogen oxides (NOx)
Hydrogen cyanide (HCN)
Sulphur oxides (SOx)

Advice for firefighters

Protective equipment:

Wear self-contained breathing apparatus.

(Contd. on page 2)
GB

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 20.05.2011

Revision: 19.05.2011

Trade name **2-Bromoethyl isothiocyanate**

Wear full protective suit.

(Contd. of page 1)

6 Accidental release measures**Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Do not allow material to be released to the environment without proper governmental permits.

**Environmental precautions:
Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of contaminated material as waste according to item 13.
Ensure adequate ventilation.

Reference to other sections

See Section 7 for information on safe handling
See section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

7 Handling and storage**Handling
Precautions for safe handling**

Handle under dry protective gas.
Keep containers tightly sealed.
Store in cool, dry place in tightly closed containers.
Ensure good ventilation/exhaustion at the workplace.

Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Conditions for safe storage, including any incompatibilities

**Storage
Requirements to be met by storerooms and containers:
Information about storage in one common storage facility:**

No special requirements.

Further information about storage conditions:

Store away from water.
Store away from oxidizing agents.

Store under dry inert gas.
This product is moisture sensitive.
Keep container tightly sealed.
Store in cool, dry conditions in well sealed containers.
Protect from humidity and keep away from water.

8 Exposure controls/personal protection**Additional information about design of technical systems:**

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

**Control parameters
Components with critical values that require monitoring at the workplace:
Additional information:**

Not required.
No data

**Exposure controls
Personal protective equipment
General protective and hygienic measures**

The usual precautionary measures should be adhered to in handling the chemicals.
Keep away from foodstuffs, beverages and food.
Instantly remove any soiled and impregnated garments.
Wash hands during breaks and at the end of the work.
Avoid contact with the eyes and skin.

Breathing equipment:**Protection of hands:****Material of gloves**

Use breathing protection with high concentrations.
Check protective gloves prior to each use for their proper condition.
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
Impervious gloves
Not determined
Safety glasses
Face protection
Protective work clothing.

Penetration time of glove material**Eye protection:****Body protection:****9 Physical and chemical properties****Information on basic physical and chemical properties****General Information****Appearance:**

Form: Liquid
Smell: Not determined
Odour threshold: Not determined.

pH-value: Not determined.**Change in condition**

Melting point/Melting range: Not determined
Boiling point/Boiling range: 102-108°C (15 mmHg)
Sublimation temperature / start: Not determined

Flash point: Not determined**Inflammability (solid, gaseous)** Not applicable.**Ignition temperature:** Not determined**Decomposition temperature:** Not determined**Self-inflammability:** Not determined.**Danger of explosion:** Product is not explosive.**Critical values for explosion:**

Lower: Not determined
Upper: Not determined

Steam pressure: Not determined**Density at 20°C** 1.65 g/cm³**Relative density** Not determined.**Vapour density** Not determined.

(Contd. on page 3)

GB

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Trade name **2-Bromoethyl isothiocyanate**

(Contd. of page 2)

Evaporation rate	Not determined.
Solubility in / Miscibility with Water:	Reacts
Segregation coefficient (n-octanol/water):	Not determined.
Viscosity: dynamic: kinematic:	Not determined. Not determined.
Other information	No further relevant information available.

10 Stability and reactivity

Reactivity	
Chemical stability	
Thermal decomposition / conditions to be avoided:	No decomposition if used and stored according to specifications.
Possibility of hazardous reactions	No dangerous reactions known
Incompatible materials:	Water/moisture Alcohols Amines Oxidizing agents
Hazardous decomposition products:	Carbon monoxide and carbon dioxide Hydrogen bromide Nitrogen oxides (NO _x) Sulphur oxides (SO _x) Hydrogen cyanide (prussic acid)

11 Toxicological information

Information on toxicological effects	
Acute toxicity:	
Primary irritant effect: on the skin: on the eye:	Corrosive effect on skin and mucous membranes. Strong corrosive effect. Lachrymatory effect.
Sensitization:	No sensitizing effect known.
Additional toxicological information:	To the best of our knowledge the acute and chronic toxicity of this substance is not fully known. Danger by skin resorption. Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach. No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

12 Ecological information

Toxicity	
Acquatic toxicity:	No further relevant information available.
Persistence and degradability	No further relevant information available.
Behaviour in environmental systems:	
Bioaccumulative potential	No further relevant information available.
Mobility in soil	No further relevant information available.
Additional ecological information:	
General notes:	Water hazard class 1 (Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system. Do not allow material to be released to the environment without proper governmental permits.
Results of PBT and vPvB assessment	
PBT:	Not applicable.
vPvB:	Not applicable.
Other adverse effects	No further relevant information available.

13 Disposal considerations

Waste treatment methods	
Recommendation	Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations. Consult state, local or national regulations for proper disposal.
Uncleaned packagings:	
Recommendation:	Disposal must be made according to official regulations.

14 Transport information**Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)**

ADR/RID-GGVS/E Class:	8 (CT1) Corrosive substances.
Kemler Number:	86
UN-Number:	2922
Packaging group:	III
Label	8+6.1
UN proper shipping name:	2922 CORROSIVE LIQUID, TOXIC, N.O.S. (2-Bromoethyl isothiocyanate)
Limited quantities (LQ)	LQ7
Transport category	3
Tunnel restriction code	E

Maritime transport IMDG/GGVSea:

IMDG/GGVSea Class:	8
UN Number:	2922
Label	8+6.1
Packaging group:	III
EMS Number:	F-A, S-B
Marine pollutant:	No

(Contd. on page 4)
GB

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(Contd. of page 3)

Correct technical name: CORROSIVE LIQUID, TOXIC, N.O.S. (2-Bromoethyl isothiocyanate)

Air transport ICAO-TI and IATA-DGR:



ICAO/IATA Class: 8
 UN/ID Number: 2922
 Label: 8+6.1
 Packaging group: III
 Correct technical name: CORROSIVE LIQUID, TOXIC, N.O.S. (2-Bromoethyl isothiocyanate)

UN "Model Regulation": UN2922, CORROSIVE LIQUID, TOXIC, N.O.S., 8 (6.1), III
 Special precautions for user: Warning: Corrosive substances.
 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

 Labelling according to Regulation (EC) No 1272/2008
 Hazard pictograms

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GHS05 GHS07

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Precautionary statements

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 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
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 P405 Store locked up.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

National regulations

 Information about limitation of use: For use only by technically qualified individuals.
 Employment restrictions concerning young persons must be observed.

 Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.
 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.
16 Other information

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

 Department issuing data specification sheet: Health, Safety and Environmental Department.
 Contact: Zachariah C. Holt
 Global EHS Manager

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
 ICAO: International Civil Aviation Organization
 ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
 GHS: Globally Harmonized System of Classification and Labelling of Chemicals
 CAS: Chemical Abstracts Service (division of the American Chemical Society)

GB