

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

3-Bromophenyl isothiocyanate

Stock number:

L09871

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



GHS06 skull and crossbones

Acute Tox. 3 H331 Toxic if inhaled.



GHS05 corrosion

Skin Corr. 1C 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.

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 GHS06

Signal word

Danger

Hazard statements

H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H331 Toxic if inhaled.

Precautionary statements

H314 Causes severe skin burns and eye damage.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
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.
P309 IF exposed or if you feel unwell:
P310 Immediately call a POISON CENTER or doctor/physician.

Other hazards

Results of PBT and vPvB assessment

PBT:

Not applicable.

vPvB:

Not applicable.

3 Composition/information on ingredients

Chemical characterization: Substances

(CAS#) Designation:

3-Bromophenyl isothiocyanate (CAS# 2131-59-1)

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

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

Suitable extinguishing agents

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
Nitrogen oxides (NOx)
Sulphur oxides (SOx)
Hydrogen bromide (HBr)
Hydrogen cyanide (HCN)

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Advice for firefighters
Protective equipment:

Wear self-contained breathing apparatus.
Wear full protective suit.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation

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

Do not allow material to be released to the environment without proper governmental permits.

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

Reference to other sections

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.

Store away from water.
Store away from oxidizing agents.

Further information about storage conditions:

Store under dry inert gas.
This product is moisture sensitive.
Keep container tightly sealed.
Protect from humidity and keep away from water.
Refrigerate

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.
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.

Breathing equipment:
Protection of hands:
Material of gloves

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

Colour: Yellow

Smell: Pungent

Odour threshold: Not determined.

pH-value: Not determined.

Change in condition

Melting point/Melting range: Not determined

Boiling point/Boiling range: 255-256°C

Sublimation temperature / start: Not determined

Flash point: > 110°C

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 Not determined

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| | |
|------------------|-----------------|
| Relative density | Not determined. |
| Vapour density | Not determined. |
| Evaporation rate | Not determined. |

| | |
|---|------------|
| Solubility in / Miscibility with Water: | Hydrolyzes |
|---|------------|

| | |
|--|-----------------|
| Segregation coefficient (n-octanol/water): | Not determined. |
|--|-----------------|

| | |
|-------------------|--|
| Viscosity: | |
| dynamic: | Not determined. |
| kinematic: | 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 Carbon monoxide and carbon dioxide Nitrogen oxides (NOx) Sulphur oxides (SOx) Hydrogen bromide Hydrogen cyanide (prussic acid) |
| Hazardous decomposition products: | |

11 Toxicological information

| | |
|---------------------------------------|--|
| Information on toxicological effects | |
| Acute toxicity: | |
| Primary irritant effect: | |
| on the skin: | Corrosive effect on skin and mucous membranes. |
| on the eye: | 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 | |
| Aquatic 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. (3-Bromophenyl 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 |

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EMS Number: F-A,S-B
 Marine pollutant: No
 Correct technical name: CORROSIVE LIQUID, TOXIC, N.O.S. (3-Bromophenyl 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. (3-Bromophenyl 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

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



GHS05 GHS06

Signal word

Danger

Hazard statements

H302 Harmful if swallowed.
 H312 Harmful in contact with skin.
 H331 Toxic if inhaled.

Precautionary statements

H314 Causes severe skin burns and eye damage.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
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 P309 IF exposed or if you feel unwell:
 P310 Immediately call a POISON CENTER or doctor/physician.

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)