

# Safety data sheet

according to 1907/2006/EC, Article 31

Revision: 29.08.2011

Printing date 02.07.2013

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier**

Trade name

**3-Bromopropionaldehyde dimethyl acetal, stab**

Stock number:

L20150

CAS Number:

36255-44-4

EC number:

252-936-6

**1.2 Relevant identified uses of the substance or mixture and uses advised against.**

Identified use:

SU24 Scientific research and development

**1.3 Details of the supplier of the safety data sheet**

Manufacturer/Supplier:

Alfa Aesar GmbH & Co.KG  
A Johnson Matthey Company  
Zeppelinstr. 7b  
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 Tel + +049 (0) 7275 988687-0

**1.4 Emergency telephone number:**

Carechem 24: +44 (0) 1235 239 670 (Multi-language emergency number)

Poison Information Center Mainz

www.giftinfo.uni-mainz.de Telephone: +49(0)6131/19240

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Flam. Liq. 3 H226 Flammable liquid and vapour.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

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

Xi; Irritant

R36/37/38: Irritating to eyes, respiratory system and skin.

R10: Flammable.

**Information concerning particular hazards for human and environment:**

Not applicable

**Other hazards that do not result in classification**

No information known.

**2.2 Label elements****Labelling according to Regulation (EC) No 1272/2008**

Hazard pictograms

Signal word

Hazard statements

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

GHS02, GHS07

Warning

H226 Flammable liquid and vapour.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

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

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.

P405 Store locked up.

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

**2.3 Other hazards**

Results of PBT and vPvB assessment

PBT:

Not applicable.

vPvB:

Not applicable.

**SECTION 3: Composition/information on ingredients****3.1 Substances**

CAS# Designation:

36255-44-4 3-Bromopropionaldehyde dimethyl acetal, stab

Identification number(s):

252-936-6

EC number:

Stabilised with:

Potassium carbonate (CAS# 584-08-7)

Impurities and stabilising additives:

**SECTION 4: First aid measures****4.1 Description of first aid measures**

After inhalation

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

Seek immediate medical advice.

Instantly wash with water and soap and rinse thoroughly.

Seek immediate medical advice.

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

Seek medical treatment.

After skin contact

After eye contact

After swallowing

**4.2 Most important symptoms and effects, both acute and delayed**

No further relevant information available.

**4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

**SECTION 5: Firefighting measures****5.1 Extinguishing media**

Suitable extinguishing agents

CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

**5.2 Special hazards arising from the substance or mixture**

If this product is involved in a fire, the following can be released:

Carbon monoxide and carbon dioxide

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**5.3 Advice for firefighters**  
**Protective equipment:**

Hydrogen bromide (HBr)

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

**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation  
Keep away from ignition sources

**6.2 Environmental precautions:**

Do not allow material to be released to the environment without proper governmental permits.  
Do not allow product to reach sewage system or water bodies.  
Do not allow to enter the ground/soil.

**6.3 Methods and material for containment and cleaning up:**

Keep away from ignition sources.  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Ensure adequate ventilation.

**Prevention of secondary hazards:****6.4 Reference to other sections**

Keep away from ignition sources.  
See Section 7 for information on safe handling  
See section 8 for information on personal protection equipment.  
See Section 13 for information on disposal.

**SECTION 7: Handling and storage****7.1 Precautions for safe handling**

Keep containers tightly sealed.  
Ensure good ventilation/exhaustion at the workplace.

**Information about protection against explosions and fires:**

Protect against electrostatic charges.  
Fumes can combine with air to form an explosive mixture.

**7.2 Conditions for safe storage, including any incompatibilities**
**Storage**  
**Requirements to be met by storerooms and containers:**  
**Information about storage in one common storage facility:**

Refrigerate

Store away from oxidizing agents.  
Protect from heat.

**Further information about storage conditions:**

Keep container tightly sealed.  
Refrigerate  
No further relevant information available.

**7.3 Specific end use(s)****SECTION 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.

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

Not required.  
No data

**8.2 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.  
Maintain an ergonomically appropriate working environment.  
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****Penetration time of glove material****Eye protection:****Body protection:**

Impervious gloves  
Not determined  
Safety glasses  
Face protection  
Protective work clothing.

**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties****General Information****Appearance:**

**Form:** Liquid  
**Colour:** Colourless to yellow  
**Smell:** Not determined  
**Odour threshold:** Not determined.

**pH-value:** Not determined.

**Change in condition**

**Melting point/Melting range:** Not determined  
**Boiling point/Boiling range:** 58-60 °C (17 mmHg)  
**Sublimation temperature / start:** Not determined

**Flash point:** 45 °C  
**Inflammability (solid, gaseous)** Not applicable.  
**Ignition temperature:** Not determined  
**Decomposition temperature:** Not determined  
**Self-inflammability:** Not determined.  
**Critical values for explosion:**  
**Lower:** Not determined  
**Upper:** Not determined  
**Steam pressure:** Not determined  
**Density at 20 °C** 1,341 g/cm<sup>3</sup>  
**Relative density** Not determined.  
**Vapour density** Not determined.

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Evaporation rate	Not determined.
Solubility in / Miscibility with	
Water:	Not miscible or difficult to mix
Partition coefficient (n-octanol/water):	Not determined.
Viscosity:	
dynamic:	Not determined.
kinematic:	Not determined.
9.2 Other information	No further relevant information available.

**SECTION 10: Stability and reactivity**

10.1 Reactivity	No information known.
10.2 Chemical stability	Stable under recommended storage conditions.
Thermal decomposition / conditions to be avoided:	No decomposition if used and stored according to specifications.
10.3 Possibility of hazardous reactions	No dangerous reactions known
10.5 Incompatible materials:	Oxidizing agents Heat
10.6 Hazardous decomposition products:	Carbon monoxide and carbon dioxide Hydrogen bromide

**SECTION 11: Toxicological information**

11.1 Information on toxicological effects	
Acute toxicity:	No effects known.
LD/LC50 values that are relevant for classification:	No data
Skin irritation or corrosion:	Causes skin irritation.
Eye irritation or corrosion:	Causes serious eye irritation.
Sensitization:	No sensitizing effect known.
Germ cell mutagenicity:	No effects known.
Carcinogenicity:	No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.
Reproductive toxicity:	No effects known.
Specific target organ system toxicity - repeated exposure:	No effects known.
Specific target organ system toxicity - single exposure:	May cause respiratory irritation.
Aspiration hazard:	No effects known.
Additional toxicological information:	To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.



**SECTION 12: Ecological information**

12.1 Toxicity	
Aquatic toxicity:	No further relevant information available.
12.2 Persistence and degradability	No further relevant information available.
12.3 Bioaccumulative potential	No further relevant information available.
12.4 Mobility in soil	No further relevant information available.
Additional ecological information:	
General notes:	Do not allow material to be released to the environment without proper governmental permits. Generally not hazardous for water. Avoid transfer into the environment.
12.5 Results of PBT and vPvB assessment	
PBT:	Not applicable.
vPvB:	Not applicable.
12.6 Other adverse effects	No further relevant information available.

**SECTION 13: Disposal considerations**

13.1 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.

**SECTION 14: Transport information**

UN-Number	UN1993
ADR, IMDG, IATA	
14.2 UN proper shipping name	1993 FLAMMABLE LIQUID, N.O.S. (3-Bromopropionaldehyde dimethyl acetal, stab)
ADR	
IMDG, IATA	FLAMMABLE LIQUID, N.O.S. (3-Bromopropionaldehyde dimethyl acetal, stab)
14.3 Transport hazard class(es)	
ADR	
	
Class	3 (F1) Flammable liquids.
Label	3
IMDG, IATA	
	
Class	3 Flammable liquids.
Label	3
Packing group	
ADR, IMDG, IATA	III
14.5 Environmental hazards:	Not applicable.
14.6 Special precautions for user	Warning: Flammable liquids.

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Kemler Number: 30

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

Transport/Additional information:

ADR  
Excepted quantities (EQ): E1  
Limited quantities (LQ) 5L  
Tunnel restriction code D/E

UN "Model Regulation": UN1993, FLAMMABLE LIQUID, N.O.S. (3-Bromopropionaldehyde dimethyl acetal, stab), 3, III

**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

Australian Inventory of Chemical

Substances Substance is not listed.

Standard for the Uniform Scheduling of

Drugs and Poisons Substance is not listed.

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: Generally not hazardous for water.

Other regulations, limitations and prohibitive regulations

ELINCS (European List of Notified Chemical

Substances) Substance is not listed.

Substances of very high concern (SVHC)

according to REACH, Article 57 Substance is not listed.

REACH - Pre-registered substances Substance is listed.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

**SECTION 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.

Abbreviations and acronyms: RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organization

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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