

# Safety data sheet

according to 1907/2006/EC, Article 31

Revision: 29.12.2008

Printing date 01.07.2013

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

### 1.1 Product identifier

Trade name ***Isobutyl methacrylate, stabilized***  
 Stock number: 41948  
 CAS Number: 97-86-9  
 EC number: 202-613-0  
 Index number: 607-113-00-X

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.



GHS09 environment

Aquatic Acute 1 H400 Very toxic to aquatic life.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.  
 Eye Irrit. 2 H319 Causes serious eye irritation.  
 Skin Sens. 1 H317 May cause an allergic skin reaction.  
 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.

Xi; Sensitising

R43: May cause sensitisation by skin contact.

N; Dangerous for the environment

R50: Very toxic to aquatic organisms.

R10: Flammable.

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

Other hazards that do not result in classification

Not applicable

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, GHS09

Warning

H226 Flammable liquid and vapour.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

H400 Very toxic to aquatic life.

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.

### Precautionary statements

### 2.3 Other hazards

Results of PBT and vPvB assessment

PBT:

vPvB:

Not applicable.

Not applicable.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

CAS# Designation: 97-86-9 Isobutyl methacrylate, stabilized

Identification number(s):

202-613-0

EC number:

607-113-00-X

Index number:

Additional information:

Stabilized with 4-Methoxyphenol (CAS# 150-76-5)

## 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.

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**After skin contact**

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.

**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**CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.**Suitable extinguishing agents**If this product is involved in a fire, the following can be released:  
Carbon monoxide and carbon dioxide**5.2 Special hazards arising from the substance or mixture****5.3 Advice for firefighters****Protective equipment:**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.

Keep away from ignition sources.

**Prevention of secondary hazards:****6.4 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.

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

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:**

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:**

No special requirements.

**Information about storage in one common storage facility:**

Keep away from heat and direct sunlight.

Store in the dark.

**Further information about storage conditions:**

Keep container tightly sealed.

Store in cool, dry conditions in well sealed containers.

Protect from the effects of light.

**7.3 Specific end use(s)**

No further relevant information available.

**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:****97-86-9 Isobutyl methacrylate, stabilized (100,0%)**MAK (TRGS 900) (Germany) 300 mg/m<sup>3</sup>  
S**Additional information:**

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**

Impervious gloves

**Penetration time of glove material**

Not determined

**Eye protection:**

Safety glasses

**Body protection:**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

**Smell:**

Not determined

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Odour threshold: Not determined.

pH-value: Not determined.

Change in condition  
Melting point/Melting range: Not determined  
Boiling point/Boiling range: 155 °C  
Sublimation temperature / start: Not determined

Flash point: 41 °C  
Inflammability (solid, gaseous) Not determined.  
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 0,889 g/cm<sup>3</sup>  
Relative density Not determined.  
Vapour density Not determined.  
Evaporation rate Not determined.  
Solubility in / Miscibility with  
Water at 20 °C: 2 g/l  
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  
Bases  
Light  
10.6 Hazardous decomposition products: Carbon monoxide and carbon dioxide

**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: May cause an allergic skin reaction.  
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.  
Other information (about experimental toxicology): Reproductive effects have been observed on tests with laboratory animals.  
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.  
Ecotoxic effects:  
Remark: Very toxic for fish  
Additional ecological information:  
General notes: Do not allow product to reach ground water, water bodies or sewage system.  
Do not allow material to be released to the environment without proper governmental permits.  
Water hazard class 2 (Self-assessment): hazardous for water.  
Danger to drinking water if even small quantities leak into soil.  
Also poisonous for fish and plankton in water bodies.  
Avoid transfer into the environment.  
Very toxic for aquatic organisms  
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.

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**SECTION 14: Transport information**

UN-Number ADR, IMDG, IATA	UN2283
14.2 UN proper shipping name ADR IMDG, IATA	2283 ISOBUTYL METHACRYLATE, STABILIZED ISOBUTYL METHACRYLATE, STABILIZED
14.3 Transport hazard class(es) ADR	
	
Class Label IMDG, IATA	3 (F1) Flammable liquids. 3
	
Class Label	3 Flammable liquids. 3
Packing group ADR, IMDG, IATA	III
14.5 Environmental hazards:	Environmentally hazardous substance, liquid
14.6 Special precautions for user Kemler Number:	Warning: Flammable liquids. 39
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): Limited quantities (LQ) Transport category Tunnel restriction code	E1 5L 3 D/E
UN "Model Regulation":	UN2283, ISOBUTYL METHACRYLATE, STABILIZED, 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 listed.

Standard for the Uniform Scheduling of Drugs and Poisons

Substance is not listed.

National regulations

Information about limitation of use:

Employment restrictions concerning young persons must be observed.  
For use only by technically qualified individuals.

Water hazard class:

Water hazard class 2 (Self-assessment): 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)

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)

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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