

# Material Safety Data Sheet

acc. to OSHA and ANSI

Printing date 06/15/2010

Reviewed on 06/14/2010

**1 Identification of substance:****Product details:****Product name:** 2-Methoxyethyl acrylate**Stock number:** L11902**Manufacturer/Supplier:**

Alfa Aesar, A Johnson Matthey Company  
 Johnson Matthey Catalog Company, Inc.  
 30 Bond Street  
 Ward Hill, MA 01835-8099  
 Emergency Phone: (978) 521-6300  
 CHEMTREC: (800) 424-9300  
 Web Site: www.alfa.com

**Information Department:** Health, Safety and Environmental Department**Emergency information:**

During normal hours the Health, Safety and Environmental Department. After normal hours call Chemtrec at (800) 424-9300.

**2 Composition/Data on components:****Chemical characterization:****Description: (CAS#)**

2-Methoxyethyl acrylate (CAS# 3121-61-7)

**Identification number(s):****EINECS Number:** 221-499-3**3 Hazards identification****Hazard description:**

T Toxic  
 N Dangerous for the environment

**Information pertaining to particular dangers for man and environment**

R 20/22 Harmful by inhalation and if swallowed.  
 R 24 Toxic in contact with skin.  
 R 36/38 Irritating to eyes and skin.  
 R 43 May cause sensitization by skin contact.  
 R 62 Possible risk of impaired fertility  
 R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment  
 R 63 Possible risk of harm to the unborn child

**Classification system****HMIS ratings (scale 0-4)****(Hazardous Materials Identification System)**

HEALTH	3	Health (acute effects) = 3
FIRE	2	Flammability = 2
REACTIVITY	1	Reactivity = 1

**GHS label elements****Danger**

3.1/3 - Toxic in contact with skin.  
 3.1/3 - Toxic if inhaled.  
 3.1/4 - Harmful if swallowed.  
 3.2/2 - Causes skin irritation.  
 3.3/2A - Causes serious eye irritation.  
 3.4/1 - May cause an allergic skin reaction.

**Warning**

2.6/3 - Flammable liquid and vapour.

**Warning**

3.7/2 - Suspected of damaging fertility or the unborn child.

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4.1/2 - Toxic to aquatic life with long lasting effects.

4.1/2 - Toxic to aquatic life.

**Prevention:**

Do not get in eyes, on skin, or on clothing.

Avoid release to the environment.

Wear protective gloves/clothing.

**Response:**

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

IF exposed or if you feel unwell:

Immediately call a POISON CENTER or doctor/physician.

**4 First aid measures****General information**

Immediately remove any clothing soiled by the product.

In case of irregular breathing or respiratory arrest provide artificial respiration.

**After inhalation**

Supply fresh air and to be sure call for a doctor.

Supply fresh air. If required, provide artificial respiration. Keep patient warm.

Seek immediate medical advice.

**After skin contact**

Immediately wash with water and soap and rinse thoroughly.

Seek immediate medical advice.

**After eye contact**

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

**After swallowing** Seek immediate medical advice.**5 Fire fighting measures****Suitable extinguishing agents** Special powder for metal fires. Do not use water.**For safety reasons unsuitable extinguishing agents** Water**Special hazards caused by the material, its products of combustion or resulting gases:**

In case of fire, the following can be released:

Carbon monoxide and carbon dioxide

Danger of containers bursting upon heating.

**Protective equipment:**

Wear self-contained respirator.

Wear fully protective impervious suit.

**6 Accidental release measures****Person-related safety precautions:**

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

**Measures for environmental protection:**

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

**Measures for cleaning/collecting:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

**Additional information:**

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

**7 Handling and storage****Handling****Information for safe handling:**

Keep container tightly sealed.

Ensure good ventilation at the workplace.

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

Keep ignition sources away.

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Protect against electrostatic charges.

**Storage****Requirements to be met by storerooms and receptacles:** No special requirements.**Information about storage in one common storage facility:**

Store away from oxidizing agents.

Do not store together with acids.

Store in the dark.

Protect from heat.

**Further information about storage conditions:**

Keep container tightly sealed.

Store in cool, dry conditions in well sealed containers.

Protect from exposure to light.

**8 Exposure controls and 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.

**Components with limit values that require monitoring at the workplace:** Not required.**Additional information:** No data**Personal protective equipment****General protective and hygienic measures**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes and skin.

**Breathing equipment:** Use suitable respirator when high concentrations are present.**Protection of hands:**

Impervious gloves

Check protective gloves prior to each use for their proper condition.

**Material of gloves**

The selection of suitable gloves not only depends on the material, but also on quality.

Quality will vary from manufacturer to manufacturer.

**Eye protection:** Safety glasses**Body protection:** Protective work clothing.**9 Physical and chemical properties:****General Information**

<b>Form:</b>	Liquid
<b>Color:</b>	Colorless
<b>Odor:</b>	Ester-like

**Change in condition**

<b>Melting point/Melting range:</b>	<-30°C (<-22°F)
<b>Boiling point/Boiling range:</b>	Not determined
<b>Sublimation temperature / start:</b>	Not determined

**Flash point:** 56°C (133°F)**Ignition temperature:** 402°C (756°F)**Decomposition temperature:** Not determined**Danger of explosion:** Product does not present an explosion hazard.**Explosion limits:**

<b>Lower:</b>	1.6 Vol %
<b>Upper:</b>	Not determined

**Vapor pressure at 20°C (68°F):** 3 hPa (2 mm Hg)**Density at 20°C (68°F):** 1.008 g/cm<sup>3</sup>**Solubility in / Miscibility with****Water at 20°C (68°F):** 116 g/l**Viscosity:****dynamic at 20°C (68°F):** 1.26 mPas

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### 10 Stability and reactivity

**Thermal decomposition / conditions to be avoided:**

Decomposition will not occur if used and stored according to specifications.

Danger of containers bursting upon heating.

**Stable until:** Depletion of inhibitor.
**Materials to be avoided:**

Heat

Light

Ultraviolet radiation

Free radical initiators

Oxidizing agents

Acids

**Dangerous reactions**

Danger of polymerization

Spontaneous polymerization can be caused in unstabilized product e.g. by ambient heat

**Dangerous products of decomposition:** Carbon monoxide and carbon dioxide
**Additional information:**

Unless inhibited, the product can polymerize resulting in a temperature and pressure increase that may rupture the container.

### 11 Toxicological information

**Acute toxicity:**
**LD/LC50 values that are relevant for classification:**

Oral	LD50	403 mg/kg (rat) (RTECS; calcd from uL)
Dermal	LD50	252 mg/kg (rabbit) (RTECS; calcd from uL)
Inhalative	LC50/4H	2710 mg/m <sup>3</sup> /4H (rat) (RTECS; calcd from ppm)
		500 ppm/4H (rat) (RTECS)
Irritation of skin	moderate	unknown mg (rabbit) (external SDS)
Irritation of eyes	moderate	unknown mg (rabbit) (external SDS)
	severe	100 µL (rabbit) (RTECS)

**Primary irritant effect:**
**on the skin:** Irritant to skin and mucous membranes.**on the eye:** Irritating effect.**Sensitization:** Sensitization possible through skin contact.
**Subacute to chronic toxicity:**

Other than potential irritation (see above), no information on illness or injury to humans from acute or chronic exposure to this product is available.

**Additional toxicological information:**

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

Danger through skin absorption.

Possible risk of impaired fertility.

Possible risk of harm to the unborn child.

No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

### 12 Ecological information:

**Ecotoxicological effects:**
**Remark:** Toxic for aquatic organisms
**Additional ecological information:**
**General notes:**

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Danger to drinking water if even extremely small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

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

Toxic for aquatic organisms

### 13 Disposal considerations

**Product:**
**Recommendation** Consult state, local or national regulations to ensure proper disposal.

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Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

## 14 Transport information

DOT regulations:



**Hazard class:** 6.1  
**Identification number:** UN2929  
**Packing group:** II  
**Proper shipping name (technical name):** TOXIC LIQUID, FLAMMABLE, ORGANIC, N.O.S. (2-Methoxyethyl acrylate)  
**Label:** 6.1+3  
**Remarks:** Special marking with the symbol (fish and tree).

Land transport ADR/RID (cross-border)



**ADR/RID class:** 6.1 (TF1) Toxic substances  
**Danger code (Kemler):** 63  
**UN-Number:** 2929  
**Packaging group:** II  
**Special marking:** Symbol (fish and tree)  
**Description of goods:** 2929 TOXIC LIQUID, FLAMMABLE, ORGANIC, N.O.S. (2-Methoxyethyl acrylate)

Maritime transport IMDG:



**IMDG Class:** 6.1  
**UN Number:** 2929  
**Label:** 6.1+3  
**Packaging group:** II  
**EMS Number:** F-E, S-D  
**Marine pollutant:** Yes (P)  
**Proper shipping name:** Symbol (fish and tree)  
 TOXIC LIQUID, FLAMMABLE, ORGANIC, N.O.S. (2-Methoxyethyl acrylate)

Air transport ICAO-TI and IATA-DGR:



**ICAO/IATA Class:** 6.1  
**UN/ID Number:** 2929  
**Label:** 6.1+3  
**Packaging group:** II  
**Proper shipping name:** TOXIC LIQUID, FLAMMABLE, ORGANIC, N.O.S. (2-Methoxyethyl acrylate)

**UN "Model Regulation":** UN2929, TOXIC LIQUID, FLAMMABLE, ORGANIC, N.O.S., 6.1 (3), II  
**Environmental hazards:** Environmentally hazardous substance, liquid; Marine Pollutant

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### 15 Regulations

**Product related hazard informations:**
**Hazard symbols:**

T Toxic  
N Dangerous for the environment

**Risk phrases:**

20/22 Harmful by inhalation and if swallowed.  
24 Toxic in contact with skin.  
36/38 Irritating to eyes and skin.  
43 May cause sensitization by skin contact.  
62 Possible risk of impaired fertility  
51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment  
63 Possible risk of harm to the unborn child

**Safety phrases:**

24 Avoid contact with skin.  
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
36/37 Wear suitable protective clothing and gloves.  
45 In case of accident or if you feel unwell, seek medical advice immediately.  
61 Avoid release to the environment. Refer to special instructions/Safety data sheets

**National regulations**

All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.  
All components of this product are listed on the Canadian Non-Domestic Substances List (NDSL).

**Information about limitation of use:** For use only by technically qualified individuals.

### 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 MSDS:** Health, Safety and Environmental Department.

**Contact:** Zachariah Holt

**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  
DOT: US Department of Transportation  
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)  
P: Marine Pollutant  
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)  
HMIS: Hazardous Materials Identification System (USA)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent

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