

Material Safety Data Sheet

acc. to OSHA and ANSI

Printing date 08/26/2009

Reviewed on 08/25/2009

1 Identification of substance:**Product details:****Product name:** 2-Hydroxyethyl methacrylate**Stock number:** L15243**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-Hydroxyethyl methacrylate (CAS# 868-77-9)

Identification number(s):**EINECS Number:** 212-782-2**Index number:** 607-124-00-X**Impurities and stabilising additives:**

300-400ppm monomethyl ether hydroquinone (MEHQ) (CAS# 150-76-5)

3 Hazards identification**Hazard description:**

Xi Irritant

Information pertaining to particular dangers for man and environment

R 36/38 Irritating to eyes and skin.

R 43 May cause sensitization by skin contact.

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

HEALTH	1
FIRE	1
REACTIVITY	1

Health (acute effects) = 1

Flammability = 1

Reactivity = 1

GHS label elements

Warning

3.2/2 - Causes skin irritation.

3.3/2A - Causes serious eye irritation.

3.4/1 - May cause an allergic skin reaction.

Prevention:

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wash thoroughly after handling.

Contaminated work clothing should not be allowed out of the workplace.

Wear protective gloves/protective clothing/eye protection/face protection.

Response:

IF ON SKIN: Wash with plenty of soap and water.

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

Specific treatment (see on this label).

If skin irritation occurs: Get medical advice/attention.

If skin irritation or rash occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Take off contaminated clothing and wash before reuse.

Wash contaminated clothing before reuse.

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Disposal:

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

4 First aid measures**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**

Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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

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).

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:**

Handle under dry protective gas.

Keep container tightly sealed.

Ensure good ventilation at the workplace.

Information about protection against explosions and fires: Keep ignition sources away.

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.

Store in the dark.

Protect from heat.

Store away from water/moisture.

Further information about storage conditions:

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 water.

Protect from exposure to light.

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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.

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**

Form:	Liquid
Color:	Colorless
Odor:	Ester-like

Change in condition

Melting point/Melting range:	-12°C (10°F)
Boiling point/Boiling range:	250°C (482°F)
Sublimation temperature / start:	Not determined

Flash point: 101°C (214°F)

Ignition temperature: Not determined

Decomposition temperature: Not determined

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

Lower:	Not determined
Upper:	Not determined

Vapor pressure at 20°C (68°F): 0.08 hPa

Density at 20°C (68°F): 1.071 g/cm³

Solubility in / Miscibility with

Water: Fully miscible

Viscosity:

dynamic at 20°C (68°F): 5 mPas

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:

Oxidizing agents

Heat

Ultraviolet radiation

Free radical initiators

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

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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: Skin sensitization test: Positive (guinea pig)

LD/LC50 values that are relevant for classification:

Oral	LD50	4680 mg/kg (guinea pig) 3275 mg/kg (mouse) 5050 mg/kg (rat)
Dermal	LD50	>3000 mg/kg (rabbit)
Irritation of skin	mild	unknown mg/24H (rabbit)
Irritation of eyes	moderate	unknown mg (rabbit)

Primary irritant effect:

on the skin: Irritant to skin and mucous membranes.

on the eye: Irritating effect.

Sensitization: Sensitization possible through skin contact.

Other information (about experimental toxicology):

Reproductive effects have been observed on tests with laboratory animals.

Bacterial mutagenicity test: Ames Salmonella Typhimurium: Negative

Subacute to chronic toxicity:**Subacute to chronic toxicity:**

Behavioral - coma.

Liver - other changes.

Blood - changes in spleen.

Blood - changes in serum composition (e.g. TP, bilirubin, cholesterol).

Blood - changes in leukocyte (WBC) count.

Biochemical - Enzyme inhibition, induction, or change in blood or tissue levels - other transferases.

Reproductive - Fertility - post-implantation mortality (e.g. dead/or resorbed implants per total number of implants).

Reproductive - Effects on Embryo or Fetus - fetal death.

Reproductive - Fertility - pre-implantation mortality (e.g. reduction in number of implants per female; total number of implants per corpora lutea)

Reproductive - Effects on Embryo or Fetus - fetotoxicity (except death, e.g., stunted fetus).

Additional toxicological information:

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

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

12 Ecological information:**General notes:**

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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

13 Disposal considerations**Product:**

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

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

14 Transport information

Not a hazardous material for transportation.

DOT regulations:

Hazard class: None

Land transport ADR/RID (cross-border)

ADR/RID class: None

Maritime transport IMDG:

IMDG Class: None

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Marine pollutant: No**Air transport ICAO-TI and IATA-DGR:**
ICAO/IATA Class: None**Transport/Additional information:** Not dangerous according to the above specifications.**15 Regulations****Product related hazard informations:****Hazard symbols:**

Xi Irritant

Risk phrases:

36/38 Irritating to eyes and skin.

43 May cause sensitization by skin contact.

Safety phrases:

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

28 After contact with skin, wash immediately with plenty of soap and water

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 Domestic Substances List (DSL).

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)

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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