

Material Safety Data Sheet

2-Ethyl hexyl acrylate



1 Chemical product and company identification

Common name : 2-Ethyl hexyl acrylate **Code** : Not available.

Synonym : Hexanol 2-ethyl acrylate, 2-Ethylhexyl 2-propenoate, 2-Ethylhexyl acrylate, 2-Propenoic acid 2-ethylhexyl ester, Octyl acrylate **MSDS#** : Not available.

Trade name : 2-Ethyl hexyl acrylate **Validation date** : 14 December 2004

Material uses : Industrial applications: Raw material for adhesives and binders, printing inks and printing ink additives, surface coating resins.

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2 Composition / information on ingredients

Substance/preparation : Substance

Chemical name*	CAS No.	%	EC number	Classification
Europe 2-Ethyl hexyl acrylate	103-11-7	99.5	203-080-7	Xi; R37/38 R43
See section 16 for the full text of the R Phrases declared above				

* Occupational exposure limit(s), if available, are listed in section 8

3 Hazards identification

The substance is classified as dangerous according to Directive 67/548/EEC and its amendments.

Classification : Xi; R37/38
R43

Additional hazards : Not available.

Effects and symptoms : Irritating to respiratory system and skin.
May cause sensitization by skin contact.

Aggravating conditions : Repeated or prolonged exposure is not known to aggravate medical condition.

See toxicological Information (section 11)

Date of issue : 14 December 2004

Page: 1/5

4 First-aid measures

First-aid measures

- Inhalation** : If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
- Ingestion** : Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. If large quantities of this material are swallowed, call a physician immediately.
- Skin contact** : In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
- Eye contact** : Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

Notes to physician

Protection of first-aiders

- : Support respiratory and cardiovascular function.
- : Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

5 Fire-fighting measures

Extinguishing Media

- Suitable** : SMALL FIRE: Use DRY chemical powder.
LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

- Not suitable** : No data available.

- Special fire-fighting procedures** : No additional remark.

- Hazardous thermal decomposition products** : These products are carbon oxides (CO, CQ).

- Protection of fire-fighters** : Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

- Unusual fire/explosion hazards** : No additional remark.

6 Accidental release measures

- Personal precautions** : Avoid contact with eyes, skin and clothing. Wear suitable protective clothing.

- Environmental precautions and clean-up methods** : Stop leak if without risk. Keep away from heat. Keep away from sources of ignition.

Note: see section 8 for personal protective equipment and section 13 for waste disposal.

7 Handling and storage

- Handling** : Avoid contact with skin and eyes. Avoid breathing vapors or spray mists. Wear suitable protective clothing.

- Storage** : Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

Packaging materials

- Recommended use** : Use original container.

8 Exposure controls/personal protection

- Engineering measures** : Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are proximal to the work-station location.

- Hygiene measures** : Wash hands, forearms, and face thoroughly after handling compounds and before eating, smoking, using lavatory, and at the end of day.

- Occupational exposure limits** :

Ingredient name	Occupational exposure limits

2-Ethyl hexyl acrylate

Personal protective equipment

- Respiratory system** : Wear appropriate respirator when ventilation is inadequate.
- Skin and body** : Chemical resistant protective suit.
- Hands** : Chemical resistant rubber gloves.
- Eyes** : Splash goggles.



9 Physical and chemical properties

- Physical state** : Liquid.
- Color** : Colorless.
- Odor** : Acrylic.
- Odor threshold** : No data available.
- Boiling point** : 214°C (417.2°F)
- Melting point** : -90°C (-130°F)
- Density** : 0.883 g/cm³ (20°C / 68°F)
- Vapor density** : 6.35 (Air = 1)
- Vapor pressure** : <0.1 kPa (<1 mm Hg) (at 20°C)
- Evaporation rate (butyl acetate = 1)** : 0.03 compared to Butyl acetate.
- Solubility** : Slightly soluble in cold water, hot water.
- Octanol/water partition coefficient** : The product is more soluble in oil; log(oil/water) = 2.4
- pH** : No data available.
- Flash point** : Open cup: 88°C (190.4°F)(Cleveland).
- Auto-ignition temperature** : 252°C (485.6°F)
- Explosion limits** : Lower: 0.65% Upper: 6.6%
- Viscosity** : No data available.

10 Stability and reactivity

- Stability** : The product is stable.
- Conditions to avoid** : No additional remark.
- Materials to avoid** : Reactive with oxidizing agents, alkalis.
- Hazardous Decomposition Products** : These products are carbon oxides (CO, CQ).
- Hazardous polymerization** : Will polymerize on application of heat; uncontrolled bulk polymerization can be explosive. Inhibit polymerization with Methyl ether or hydroquinone: 90-120 ppm.

11 Toxicological information

Potential acute health effects

- Eyes** : Hazardous in case of eye contact.
- Skin** : Irritating to skin. May cause sensitization by skin contact.
- Inhalation** : Irritating to respiratory system.
- Ingestion** : Hazardous in case of ingestion.
- Routes of Entry** : Dermal contact. Eye contact. Inhalation. Ingestion.
- Target organs** : No data available.
- Acute toxicity** :

2-Ethyl hexyl acrylate

<u>Ingredient name</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
2-Ethyl hexyl acrylate	LD50 LCLo	6700 mg/kg 600 mg/m ³ (hour(s))	Oral Inhalation	Rat. Mouse

Special remarks on toxicity to animals : No additional remark.

Specific effects :

<u>Ingredient name</u>	<u>Carcinogenic effects</u>	<u>Mutagenic effects</u>	<u>Developmental toxicity</u>	<u>Impairs fertility</u>

Special remarks on chronic effects on humans : No additional remark.

Special remarks on other toxic effects on humans : Material is irritating to mucous membranes and upper respiratory tract. Exposure can cause drowsiness and convulsions.

12 Ecological information

Ecotoxicity Data :

<u>Ingredient name</u>	<u>Species</u>	<u>Period</u>	<u>Result</u>

Mobility : No data available.

Soil/water partition coefficient (K_{OC}) : No data available.

Persistence/degradability : No data available.

Bioaccumulative potential : No data available.

<u>Ingredient name</u>	<u>Persistence/degradability</u>						<u>Bioaccumulative potential</u>		
	<u>BOD₅</u>	<u>COD</u>	<u>ThOD</u>	<u>Aquatic half-life</u>	<u>Photolysis</u>	<u>Biodegradability</u>	<u>LogP_{ow}</u>	<u>BCF</u>	<u>Potential</u>

13 Disposal considerations

Methods of disposal : Waste must be disposed of in accordance with federal, state and local environmental control regulations.

14 Transport information

International transport regulations

<u>Regulatory Information</u>	<u>UN number</u>	<u>Proper shipping name</u>	<u>Class</u>	<u>Packing group</u>	<u>Label</u>	<u>Additional information</u>
ADR/RID Class	Not available.	Not regulated.	Not controlled under ADR/RID	Not applicab		
ADN Class	Not available.	Not regulated.	Not controlled under ADN.	Not applicab		
IMDG Class	Not applicable.	Not regulated.	Not controlled under IMDG.	Not applicab		-
IATA-DGR Class	Not applicable.	Not regulated.	Not controlled under IATA.	Not applicab		-

15 Regulatory information

EU Regulations

Hazard symbol(s)

:

*Irritant*

Indication of Danger

Risk phrases: *R37/38- Irritating to respiratory system and skin.
R43- May cause sensitization by skin contact.***Safety phrases**: *S24- Avoid contact with skin.
S37- Wear suitable gloves.***Contains**: *2-Ethyl hexyl acrylate* 203-080-7**Product use**: *Classification and labeling have been performed according to EU directives 67/548/EEC, 1999/45/EC including amendments and the intended use.
- Industrial applications.*

16 Other information

Full text of R-Phrases appearing in Section 2: *R37/38- Irritating to respiratory system and skin.
R43- May cause sensitization by skin contact.***Text of classifications appearing in Section 2**: *Xi - Irritant***Other special considerations**: *No additional remark.*

History

Date of printing: **14 December 2004****Date of issue**: **14 December 2004****Date of previous Issue**: **No Previous Validation.**

Notice to reader

This MSDS summarises at the date of issue our best knowledge of the health, safety and environmental hazard information related to the product, and in particular how to safely handle, use, store and transport the product. Since we cannot anticipate or control the conditions under which the product may be handled, used, stored or transported, each user must, prior to usage, review this MSDS in the context of how the user intends to handle, use, store or transport the product in the workplace and beyond, and communicate such information to all relevant parties. If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.

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Version**1****Page: 5/5**