

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product name : 2-Ethylacrolein

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

According to Regulation (EC) No1272/2008

Flammable liquids (Category 2)

Acute toxicity, Inhalation (Category 2)

Acute toxicity, Dermal (Category 4)

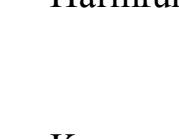
Acute toxicity, Oral (Category 4)

According to European Directive 67/548/EEC as amended.

Highly flammable. Harmful by inhalation, in contact with skin and if swallowed.

Label elements

Pictogram



Signal word

Danger

Hazard statement(s)

H225 Highly flammable liquid and vapour.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H330 Fatal if inhaled.

Precautionary statement(s)

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

P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

P280 Wear protective gloves/ protective clothing.

P284 Wear respiratory protection.

P310 Immediately call a POISON CENTER or doctor/ physician.

Hazard symbol(s)

F Highly flammable

Xn Harmful

R-phrases

R11 Highly flammable.

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

S-phrase(s)

S16 Keep away from sources of ignition - No smoking.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S28 After contact with skin, wash immediately with plenty of water.

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

Other hazards

Lachrymator.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : 2-Ethylpropenal
2-Methylenebutyraldehyde

Formula : CSH8O

CAS-No.	EC-No.	Classification	Concentration
2-Ethylacrylaldehyde 922-63-4	213-079-3	Flam. Liq. 2; Acute Tox. 2; Acute Tox. 4; H225, H302, H312, H330 F, Xn, R11 - R20/21/22	99,995 %
Hydroquinone 123-31-9	204-617-8	Carc. 2; Mut. 2; Eye Dam. 1; 0,005 % Skin Sens. 1; Aquatic Acute 1; Acute Tox. 4; H400, H302, H317, H318, H341, H351 Xn, N, Carc. Cat.3, Mut. Cat.3, R22 - R40 - R41 - R43 - R50 - R68	

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water.

Consult a physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

Further information

Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage temperature: 2 - 8 °C

Air and light sensitive.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Eye protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Complete suit protecting against chemicals. Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form clear, liquid

Colour light brown

Safety data

pH no data available

Melting point no data available

Boiling point 92 - 93 °C - lit.

Flash point 1 °C - closed cup

Ignition temperature no data available

Lower explosion limit no data available

Upper explosion limit no data available

Density 0.859 g/cm3 at 25 °C

Water solubility no data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Conditions to avoid

Heat, flames and sparks. Extremes of temperature and direct sunlight.

Materials to avoid

Strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions: Carbon oxides

Contains the following stabilizer(s):

Hydroquinone (0,005 %)

11. TOXICOLOGICAL INFORMATION

Acute toxicity

LC50 Inhalation - rat - 4 h - 289 ppm

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as

probable, possible or confirmed human carcinogen by IARC.

WHO: No component of this product present at levels greater than or equal to 0.1% is identified as

probable, possible or confirmed human carcinogen by WHO.

EU: No component of this product present at levels greater than or equal to 0.1% is identified as

probable, possible or confirmed human carcinogen by EU.

Other: No component of this product present at levels greater than or equal to 0.1% is identified as

probable, possible or confirmed human carcinogen by other organization.

RETECS: ES348000

12. ECOLOGICAL INFORMATION

Toxicity

No data available

Persistence and degradability

No data available

Biodegradability

No data available

Mobilization in soil

No data available

PBT and vPvB assessment

No data available

Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

Product

Burn material highly flammable equipped with surplus and non-recyclable scrubbers to exert extra disposal in igniting as

Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

ADR/RID

UN-Number: 3384 Class: 6.1 (3)