1 Identification of the substance/mixture and of the company/undertaking

· **Product identifier**

· **Tradename: 2-HEMA (Hydroxyethylmethacrylate)**

· **CAS-nummer:**
868-77-9
EG-nummer:
212-782-2

· Relevant identified uses of the substance or mixture and uses advised against
Identified uses : Laboratory chemicals, Manufacture of substances

Details of the supplier of the safety data sheet

Manufacturer/Supplier:
Anhui Renxin Environmental Protection Materials Co.,Ltd.
Xinfa Industrial Park,Langxi County,
Xuancheng Anhui Province
China

2 Hazards identification

Classification according to Regulation (EC) No 1272/2008
Skin irritation (Category 2), H315
Eye irritation (Category 2), H319
Skin sensitisation (Category 1), H317
For the full text of the H-Statements mentioned in this Section, see Section 16.

Classification according to EU Directives 67/548/EEC or 1999/45/EC
R43
Xi Irritant R36/38
For the full text of the R-phrases mentioned in this Section, see Section 16.

Label elements
Labeling according Regulation (EC) No 1272/2008
Pictogram

Signal word Warning

Hazard statement(s)
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
Precautionary statement(s)
P280 Wear protective gloves.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Supplemental Hazard Statements
none

3 Composition/information on ingredients

Synonyms : 1,2-Ethanediol mono(2-methylpropenoate,Glycol methacrylate, HEMA
Formula : C6H10O3
Molecular Weight : 130,14 g/mol
CAS-No. : 868-77-9
EC-No. : 212-782-2
Hazardous ingredients according to Regulation (EC) No 1272/2008
Component Classification Concentration
2-Hydroxyethyl methacrylate
CAS-No. 868-77-9
EC-No. 212-782-2
Skin Irrit. 2; Eye Irrit. 2; Skin Sens. 1; H315, H317, H319
<= 100 %
Hazardous ingredients according to Directive 1999/45/EC
Component Classification Concentration
2-Hydroxyethyl methacrylate
CAS-No. 868-77-9
EC-No. 212-782-2
Xi, R36/38 - R43 <= 100 %
For the full text of the H-Statements and R-Phrases 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
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Indication of any immediate medical attention and special treatment needed
no data available

5 Firefighting measures

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards arising from the substance or mixture
Carbon oxides, nitrogen oxides (NOx)
Advice for firefighters
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, protective equipment and emergency procedures
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). Keep in suitable, closed containers for disposal.
Reference to other sections
For disposal 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, including any incompatibilities
Store in cool place. 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
Moisture sensitive. Light sensitive.
Specific end uses
no data available

8 Exposure controls/personal protection

Control parameters
Components with workplace control parameters

Exposure controls

Appropriate engineering controls

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

Personal protective equipment

Eye/face 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 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.

Body Protection

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

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).

9 Physical and chemical properties

Information on basic physical and chemical properties

a) Appearance Form	clear, liquid
Colour	colourless
b) Odour	ester-like
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezingpoint	< -60 °C
f) Initial boiling point and boiling range	67 °C at 4,7 hPa - lit.
g) Flash point	96 °C - closed cup
h) Evapouration rate	no data available
i) Flammability (solid, gas)	no data available
j) Upper/lowerflammability/explosive limits	no data available
k) Vapour pressure	0,1 hPa at 20 °C
l) Vapour density	no data available
m) Relative density	1,073 g/mL at 25 °C
n) Water solubility	no data available
o) Partition coefficient: noctanol/water	log Pow: -0,53 at 20 °C
p) Auto-ignition temperature	no data available
q) Decomposition temperature	no data available
r) Viscosity	no data available
s) Explosive properties	no data available
t) Oxidizing properties	no data available

10 Stability and reactivity

Reactivity
no data available
Chemical stability
no data available
Contains the following stabiliser(s):
Mequinol ((>=180 - <=220 ppm)
Possibility of hazardous reactions
no data available
Conditions to avoid
Exposure to light. May polymerize on exposure to light.
Incompatible materials
Strong acids, Strong bases, Strong oxidizing agents, Strong reducing agents
Hazardous decomposition products
Other decomposition products - no data available

11 Toxicological information

Acute toxicity
LD50 Oral - rat - 5.564 mg/kg
LD50 Dermal - rabbit - > 3.000 mg/kg
Skin corrosion/irritation
Skin - rabbit
Result: irritating - 24 h
Serious eye damage/eye irritation
Eyes - rabbit
Result: Moderate eye irritation - 24 h
(Draize Test)
Respiratory or skin sensitisation
Maximisation Test - guinea pig
May cause sensitisation by skin contact.
(OECD Test Guideline 406)
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.
Reproductive toxicity
Reproductive toxicity - rat - female - Oral
Effects on Fertility: Pre-implantation mortality (e.g., reduction in number of implants per female; total number of implants per corpora lutea). Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Effects on Embryo or Fetus: Fetal death.
Specific target organ toxicity - single exposure
no data available
Specific target organ toxicity - repeated exposure
no data available
Aspiration hazard

no data available

Additional Information

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12 Ecological

Toxicity to fish flow-through test - Pimephales promelas (fathead minnow) - 227 mg/l - 96 h

Persistence and degradability

Biodegradability aerobic Chemical oxygen demand - Exposure time 28 d
Result: 84 % - Readily biodegradable.
(Closed Bottle test)

Bioaccumulative potential

no data available

Mobility in soil

no data available

Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects

no data available

13 Disposal considerations

Waste treatment methods

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

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14 Transport information

UN number

ADR/RID: - IMDG: - IATA: -

UN proper shipping name

ADR/RID: Not dangerous goods
IMDG: Not dangerous goods
IATA: Not dangerous goods

Transport hazard class(es)

ADR/RID: - IMDG: - IATA: -

Packaging group

ADR/RID: - IMDG: - IATA: -

Environmental hazards

ADR/RID: no IMDG Marine Pollutant: no IATA: no

Special precautions for user

no data available

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms Please refer section 2.

Signal word Please refer section 2.

Hazard-determining components of labeling: Please refer section 2.

Hazard statements Please refer section 2.

Precautionary statements Please refer section 2.

Chemical safety assessment Please refer section 2.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

√ **CHINA - China Inventory of Existing Chemical Substances（IECSC）**
√ **TSCA - United States Inventory of Toxic Substances Control Act Chemical Substances（TSCA）**
√ **ENCS - Japan Existing and New Chemical Substances（ENCS）**
√ **EINECS - European Inventory of Existing Commercial Chemical Substances（EINECS）**

Note:
"√" Indicates that the substance included in the regulations

16 Other information

Full text of H-Statements referred to under sections 2 and 3.
Eye Irrit. Eye irritation
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
Skin Irrit. Skin irritation
Skin Sens. Skin sensitisation
Full text of R-phrases referred to under sections 2 and 3
Xi Irritant
R36/38 Irritating to eyes and skin.
R43 May cause sensitisation by skin contact.

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.