

KBRCHEM

Material Safety Data Sheet

Revision Date: 2023-12-1

KBR KH570

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Name of substance/preparation

Commercial product name: KH-570

Chemical name: 3-Methacryloxypropyltrimethoxysilane

1.2 Use of substance/preparation

Industrial, intermediate chemical

1.3 Company information

Manufacturer/distributor: HUANGSHAN KBR NEW MATERIAL TECHNOLOGY CO.,LTD

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1.4 Revision date

2023-12-1

2. HAZARDS IDENTIFICATION

2.1 Emergency overview

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

flammable liquid	Category 4
Acute toxicity-oral	Category 5
Acute toxicity- skin	Category 5

Pictogram

Signal word warning

Hazard statement(s)

H227 Flammable liquid

H303+H313 May be harmful in contact with swallowing or skin.

Precautionary statement(s)

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

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P370+P378 In case of fire: Use Dry sand, dry powder or soluble bubble for extinction.

P403+P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents/container to (in accordance with local/regional/national/international regulation).

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2.2 Other effects

Chronic: No information found.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Chemical characterization (substance)

CAS No.	Chemical characteristics
2530-85-0	Organosilane

3.2 Ingredients

Chemical name	CAS No.	Concentration
3-Methacryloxypropyltrimethoxysilane	2530-85-0	≥98.0%
Methanol	67-56-1	≤2.0%

Notes: Additional methanol may be formed by reaction with moisture. Harmful if swallowed.

4. FIRST AID MEASURES

4.1 General information

Take persons to a safe place. Observe self-protection for first aid. Always seek medical advice in the event of contact with this substance.

4.2 After inhalation

Keep the patient calm. If unconscious place in stable sideways position. Protect against loss of body heat. If breathing stops, administer artificial respiration. Seek medical advice immediately and clearly identify substance.

4.3 After contact with the skin

Remove contaminated clothes at once. Wash off with plenty of water or water and soap immediately for 10-15 minutes. In serious cases, use emergency shower immediately. Seek medical advice immediately and clearly identify substance.

4.4 After contact with the eyes

Rinse immediately with plenty of water for 10-15 minutes. Keep eyelids well open to rinse the whole eye surface and eyelids with water. Seek medical advice immediately and clearly identify substance. Continue to bathe eyes during transport to medical practitioner.

4.5 After swallowing

If conscious, give several small portions of water to drink. Do not induce vomiting. Seek medical advice immediately and clearly identify substance.

4.6 Advice for the physician

In case of contact with water material splits off (also in gastrointestinal tract) methanol in larger amounts; therefore consider poisoning on methanol and also observe known period of latency of several days.

5. FIRE FIGHTING MEASURES

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5.1 Flash point: 108°C

5.2 Suitable extinguishing media

Use dry powder or foam in large fires and carbon dioxide, dry powder, and sand in small fires.
Water can be used to cool containers affected by the fire.

5.3 Special danger

Be careful, it may decompose under fire or high temperature to produce toxic fumes.

5.4 Specific methods

Decide whether you need to evacuate or isolate the area based on your local emergency plan.
Keep water exposed containers cool by spraying water.

5.5 Special protective equipment for firefighters

Wear personal protective equipment when fighting fires.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions

Wear personal protection equipment (see section 8). Keep unprotected persons away. Avoid contact with eyes and skin. Avoid inhaling mists and vapours. If material is released indicate risk of slipping.

6.2 Environmental precautions

Prevent material from entering surface waters, drains or sewers and soil. Contain any fluid that runs out using suitable material. Retain contaminated water/extinguishing water. Dispose of in prescribed marked containers.

6.3 Methods for cleaning up

Absorb with inert absorbent material and treat as hazardous waste. Store in a suitable closed processing container.

7. HANDLING AND STORAGE

7.1 Handling

Use best in a well-ventilated area.

When using the product, contact with flammable methanol in water or humid air.

During use, it is necessary to control the exposure of methanol and use air-supply or self-contained breathing apparatus to provide ventilation.

Do not get into eyes.

Avoid skin contact.

Avoid breathing vapor, mist, dust or fumes.

Keep container tightly closed.

Don't take it internally.

Remove contaminated clothing immediately.

To develop good industrial hygiene habits, you must wash before eating, drinking, or smoking.

Take fire protection measures.

7.2 Storage precautions

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Store in a cool place. Keep container tightly closed in a dry and well-ventilated place.
Opened containers must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Maximum allowable concentration

Ingredient name	CAS	Maximum allowable concentration
γ -(Methacryloxy)propyltrimethoxysilane	2530-85-0	See methanol CHINA: TWA 25 mg/m ³ . STEL 50 mg/m ³ . Can be absorbed through the skin
Methanol	67-56-1	OSHA PEL (final rule): TWA 200 ppm, 260 mg/m ³ ACGIH TLV-skin: TWA 200ppm, STEL 250 ppm.

8.2 Engineering controls

The workplace is recommended to be separated from other workplaces.

Closed operation to prevent leakage.

Increase ventilation.

Set up automatic alarm devices and accident ventilation facilities.

Set up emergency evacuation routes and necessary escape areas.

Set up red area warning lines, warning signs and Chinese warning instructions, and set up a communication alarm system.

Provide safety shower and eyewash equipment.

8.3 Personal protection

Respiratory protection: gas mask. Based on local and government regulations.

Hand protection: protective gloves.

Eye protection: Safety goggles. If necessary, wear a mask.

Skin and body protection: Protective clothing. If necessary, wear protective boots.

8.4 Environmental protection

Local ventilation recommended

General ventilation recommended

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 General information

Physical state/form.....: liquid

Color.....: colorless

pH.....: not determined

Boiling point.....: 255°C at 760mmHg

Melting point.....: not determined

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Flash point.....	: 108°C
Upper explosion limit.....	: no data available
Lower explosion limit.....	: no data available
Vapor pressure.....	: no data available
Vapor density.....	: no data available
Density/relative density.....	: 1.045g/ml (25°C)
Solubility.....	: not miscible in water

10. STABILITY AND REACTIVITY

10.1 General information

If stored and handled in accordance with standard industrial practices no hazardous reactions are known.

10.2 Chemical stability: Sensitive to humidity.

10.3 Reactivity

Conditions to avoid: Incompatible materials, sources of ignition, excess heat, exposure to moist air.

Hazardous decomposition products: Carbon oxides and incompletely combusted carbon compounds, formaldehyde, silicon dioxide.

Dangerous Polymerization: Polymerization may occur in the presence of water, strong acids, and heat.

11. TOXICOLOGICAL INFORMATION

11.1 Route of infection: inhalation, skin contact and ingestion.

11.2 Signs and symptoms of overexposure:

Harmful if inhaled. May be harmful if swallowed. Causes serious eye damage. May cause skin irritation. May cause an allergic skin reaction.

11.3 Acute toxicity

Chemical name	CAS	LD50 (oral)	LD50 (percutaneous)	LC50 (inhalation)
γ -(Methacryloxy)propyltrimethoxysilane	2530-85-0	>2000 mg/kg (rat)	>2000 mg/kg (rabbit)	> 2.28 mg/l (rat 4 h)

Potential health effects

Inhalation May be harmful if inhaled. May cause respiratory irritation.

Ingestion Harmful if swallowed.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eye Causes eye irritation.

11.4 Chronic toxicity

Organosilicon compounds are generally low in toxicity.

11.5 Other health hazard information

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This material may liberate methanol from contact with moisture or humid air. Excessive Methanol can cause blindness and nervous system effects.

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity:

Fish: LC50> 1024 mg / l Test time: 96 hours Brachydanio rerio

Toxicity to daphnia and other aquatic invertebrates: EC50 876 mg / l Test time: 48 hours

Daphnia magna

Algae: EC50 536 mg / l Test time: 72 hours Scenedesmus subspicatus

12.2 Residual / degradable

This product hydrolyzes in water or humid air, releasing methanol and organic silicon compounds

12.3 Potential Bioaccumulation (BCF): No data available

12.4 Mobility in soil: no data available

12.5 Additional environmental information

Even in the case of professional handling or disposal, environmental hazards cannot be ruled out.

13. DISPOSAL CONSIDERATIONS

13.1 Material

Properly dispose in accordance with local regulations.

13.2 Unclean packaging

Properly dispose in accordance with local regulations.

14. TRANSPORT INFORMATION

Dangerous goods category: None

United Nations number (UN No.): None

Packing group: None

Official shipping name: γ -(Methacryloxy)propyltrimethoxysilane

Chemical name: γ -(Methacryloxy)propyltrimethoxysilane

This product is not classified as dangerous by UN, IATA, IMDG

15. REGULATORY INFORMATION

National and local regulations must be followed. Refer to the information in this document. "Regulations on the Safety Management of Dangerous Chemicals" (promulgated by the State Council on February 16, 2011): Corresponding regulations have been made for the safe use, production, storage, transportation, loading and unloading of dangerous chemicals.

16. OTHER INFORMATION

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Prepared by HUANGSHAN KBR CO.

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The above information relates only to the specific materials designated herein and may not be valid for such materials used in combination with any other materials or in any process or if the material is altered or processed, unless specified in the text.

-End of Material Safety Data Sheet-