

# Material Safety Data Sheet

Page No.:  
Last Revision Date: 2020/11/01  
Version No.: GHS 2.0

## KBRchem KH-792 SILANE

### 1. IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY

- 1.1 Product Name:** N-[3-(TRIMETHOXSILYL)PROPYLETHYLENEDIAMINE
- 1.2 Product Code:** KH-792
- 1.3 Chemical Classification:** Alkoxysilane
- 1.4 Recommended Product Usage and Limited Use:** Intermediate for chemical industry Use.  
chemical accejerant
- 1.5 Company Details**
- Manufacturer/Supplier:** HuangShan KBRchem Co.,LTD  
**Address:** 16-1-201,JinShanYun,JiangNan New City,TunXi District,HuangShan City, AnHui Province,China
- Telephone Number:** 0086-559-2335676      **Fax Number:** (0086-559-2331637  
**Email Address:** johnxu@kbrchem.com  
**Emergency Telephone Number:** (0086-559-2335676
- 1.6 First Issuing Date:** 2010/09/18
- 1.7 Chemical Emergency, Spill, Leak & Fire Exposure during Transport:** CHEMTREC International call: 0086-559-2335676; North America: 400-233-9557 (collect calls accepted)

### 2. HAZARD IDENTIFICATION

- 2.1 Hazard Classification:** Acute toxicity (oral): Category 5  
Acute toxicity (inhalation - dust and mist): Category 4  
Skin corrosion/irritation: Category 3  
Serious eye damage/eye irritation: Category 1  
Skin sensitization: Category 1  
Acute aquatic hazard: Category 2  
Chronic aquatic hazard: Category 2

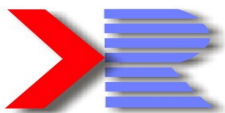
**2.2 Label Elements Including Precautionary Statements**

**Symbol:**



**Signal Word:** Danger

**Hazard Risk Statement:** May be harmful if swallowed.  
Harmful if inhaled.  
Causes mild skin irritation.  
Causes serious eye damage.  
May cause an allergic skin reaction.  
Toxic to aquatic life.  
Toxic to aquatic life with long lasting effects.



# Material Safety Data Sheet

Page No.:  
Last Revision Date: 2010/11/01  
Version No.: GHS 2.0

## KBR chem KBR-792 SILANE

**Precautionary Statement:** Avoid breathing dust/fume/gas/mist/vapours/spray.  
Wear suitable protective clothing, gloves and eye/face protection.  
Contaminated work clothing should not be allowed out of the workplace.  
Use only outdoors or in a well-ventilated area.  
Avoid release to the environment.  
IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
IF ON SKIN: Wash with plenty of soap and water.  
IF exposed or if you feel unwell: Get immediate medical advice/attention.  
Wash contaminated clothing before reuse.  
Collect spillage.  
Dispose of in accordance with local regulations.

2.3 **Other Hazard:** None known.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 **Chemical characterization:** Substance

#### 3.2 Hazardous Ingredients

<u>Chemical Name</u>	<u>CAS No.</u>	<u>% (w/w)</u>
Aminoethylaminopropyltrimethoxysilane	1760-24-3	98.00
High boiling point impurities	-	<1

### 4. FIRST AID MEASURES

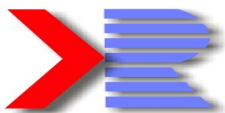
#### 4.1 First Aid Measures

**Eyes:** Immediately flush with water for 15 minutes. Get medical attention.  
**Skin:** Remove from skin and immediately flush with water for 15 minutes. Get medical attention if irritation or ill effects develop or persist.  
**Inhalation:** Remove to fresh air. Get medical attention if ill effects persist.  
**Oral:** Get medical attention.  
**Comments:** Treat according to person's condition and specifics of exposure.

4.2 **Important Symptoms and Hazard Effects:** Harmful if inhaled. May be harmful if swallowed. Causes serious eye damage. May cause skin irritation. May cause an allergic skin reaction.

#### 4.3 Personal Protection for First Aid or Rescue Personnel

**Respiratory Protection:** Use self-contained breathing apparatus (SCBA) or other supplied-air respirator.  
**Eye Protection:** Use full face respirator.  
**Skin Protection:** Wash at mealtime and end of shift. If skin contact occurs, change contaminated clothing as soon as possible and thoroughly flush affected areas with cool water. Chemical protective gloves are recommended.



## Material Safety Data Sheet

Page No.:  
Last Revision Date: 2010/11/01  
Version No.: GHS 2.0

### KBR chem KBR-792 SILANE

**4.4 Note to physicians:** Treat symptomatically. For further information, the medical practitioner should contact HuangShan KBR chem Co.,LTD

#### 5. FIRE-FIGHTING MEASURES

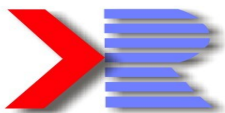
- 5.1 Suitable Extinguishing Media:** On large fires use dry chemical or foam. On small fires use CO<sub>2</sub> or dry chemical. Water can be used to cool fire exposed containers.
- 5.2 Unsuitable Extinguishing Media:** Water. Do not allow extinguishing medium to contact container contents.
- 5.3 Specific Hazards:** None.
- 5.4 Special Fire Fighting Procedures:** Determine the need to evacuate or isolate the area according to your local emergency plan. Use water spray to keep fire exposed containers cool.
- 5.5 Special protective equipment for the Fire Fighters:** Self-contained breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals.

#### 6. ACCIDENTAL RELEASE MEASURES

- 6.1 Personal Precautions:** Do not get in eyes. Avoid skin contact. Avoid breathing vapor, mist, dust, or fumes. Keep container closed. Do not take internally.
- 6.2 Environmental Precautions:** Do not empty into drains. Prevent from spreading or entering into drains, ditches or rivers by using sand, earth or other appropriate barriers. Inform local authorities if this cannot be prevented.
- 6.3 Methods for Cleaning up:** Determine whether to evacuate or isolate the area according to your local emergency plan. Observe all personal protective equipment recommendations described in this MSDS. If diked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbant. Clean area as appropriate since spilled materials, even in small quantities, may present a slip hazard. Final cleaning may require use of steam, solvents or detergents. Dispose of saturated absorbant or cleaning materials appropriately, since spontaneous heating may occur. Laws and regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which laws and regulations are applicable.

#### 7. HANDLING AND STORAGE

- 7.1 Handling Precautions:** Use with adequate ventilation. Product evolves flammable methyl alcohol when exposed to water or humid air. Provide ventilation during use to control methyl alcohol exposures within exposure guidelines or use air-supplied or self-contained breathing apparatus. Do not get in eyes. Avoid skin contact. Avoid breathing vapor, mist, dust, or



## Material Safety Data Sheet

Page No.:  
Last Revision Date: 2010/11/01  
Version No.: GHS 2.0

### KBR chem KBR-792 SILANE

fumes. Keep container closed. Do not take internally. Remove contaminated clothing immediately. Exercise good industrial hygiene practice. Wash after handling, especially before eating, drinking or smoking.

**7.2 Storage Conditions:** Keep container closed and store away from water or moisture.

**7.3 Unsuitable Packaging Materials:** None established.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 Industrial Hygiene Standards:

<u>Ingredients</u>	<u>CAS No.</u>	<u>Exposure Limits</u>
Aminoethylaminopropyltrimethoxysilane	1760-24-3	See methyl alcohol comments.
High boiling point impurities	-	See methyl alcohol comments.

Methyl alcohol forms on contact with water or humid air. Provide adequate ventilation to control exposures within guidelines of OSHA PEL: TWA 200 ppm and ACGIH TLV-skin: TWA 200 ppm, STEL 250 ppm.

### 8.2 Engineering Controls

**Local Ventilation:** Recommended.  
**General Ventilation:** Recommended.

### 8.3 Personal Protective Equipment for Routine Handling

**Respiratory protection:** Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. IH personnel can assist in judging the adequacy of existing engineering controls.

**Suitable Respirator:** Organic Vapor/Dust/Mist Type.

**Eye protection:** Use chemical worker's goggles.

**Hand protection:** Chemical protective gloves should be worn.

**Skin protection:** Wash at mealtime and end of shift. If skin contact occurs, change contaminated clothing as soon as possible and thoroughly flush affected areas with cool water. Chemical protective gloves are recommended.

**Hygiene Measures:** Remove contaminated clothing immediately. Exercise good industrial hygiene practice. Wash after handling, especially before eating, drinking or smoking.

### 8.4 Personal Protective Equipment for Spills

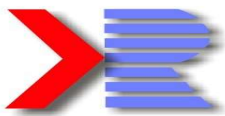
**Respiratory protection:** Use self-contained breathing apparatus (SCBA) or other supplied-air respirator.

**Eye protection:** Use full face respirator.

**Skin protection:** Wash at mealtime and end of shift. If skin contact occurs, change contaminated clothing as soon as possible and thoroughly flush affected areas with cool water. Chemical protective gloves are recommended.

**Precautionary Measures:** Do not get in eyes. Avoid skin contact. Avoid breathing vapor, mist, dust, or fumes. Keep container closed. Do not take internally. Use reasonable care.

**Comments:** Product evolves flammable methyl alcohol when exposed to water or humid air. Provide ventilation during use to control methyl alcohol exposures within exposure



## Material Safety Data Sheet

Page No.:  
Last Revision Date: 2010/11/01  
Version No.: GHS 2.0

### KBR chem KBR-792 SILANE

guidelines or use air-supplied or self-contained breathing apparatus.

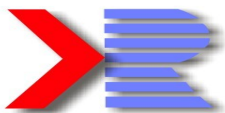
*Note: These precautions are for room temperature handling. Use at elevated temperature or aerosol/spray applications may require added precautions. For further information regarding aerosol inhalation toxicity, please refer to the guidance document regarding the use of silicone-based materials in aerosol applications that has been developed by the silicone industry.*

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1	<b>Physical Form:</b>	Liquid
9.2	<b>Color:</b>	Colorless
9.3	<b>Odor:</b>	Not available
9.4	<b>pH:</b>	Not determined.
9.5	<b>Melting Point:</b>	< -20 °C
9.6	<b>Boiling point/range:</b>	264 °C
9.7	<b>Flash Point:</b>	94 °C(Seta Closed Cup)
9.8	<b>Explosive Limit:</b>	Not determined.
9.9	<b>Vapor Pressure @ 25°C:</b>	Not determined.
9.10	<b>Vapour Density (air=1):</b>	Not determined.
9.11	<b>Specific Gravity:</b>	1.02 g/cm <sup>3</sup>
9.12	<b>Water Solubility:</b>	Not determined.
9.13	<b>Partition Coefficient (n-Octanol/Water):</b>	Not determined.
9.14	<b>Autoignition temperature:</b>	320 °C
9.15	<b>Decomposition Temperature :</b>	Not determined.
9.16	<b>Odor Threshold:</b>	Not determined.
9.17	<b>Evaporation Rate:</b>	Not determined.
9.18	<b>Flammability (Solid, Gas):</b>	Not applicable.

#### 10. STABILITY AND REACTIVITY

10.1	<b>Stability:</b>	Stable.
10.2	<b>Possibility of Hazardous Reactions:</b>	Hazardous polymerization will not occur.
10.3	<b>Conditions to Avoid:</b>	None.



## Material Safety Data Sheet

Page No.:  
Last Revision Date: 2010/11/01  
Version No.: GHS 2.0

### KBR chem KBR-792 SILANE

- 10.4 Materials to Avoid:** Can react with strong oxidising agents. Water, moisture or humid air can cause hazardous vapors to form.
- 10.5 Hazardous Decomposition Products:** Carbon oxides and traces of incompletely burned carbon compounds. Formaldehyde. Nitrogen oxides. Silicon dioxide.

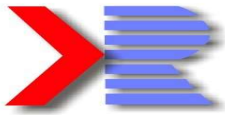
### 11. TOXICOLOGICAL INFORMATION

- 11.1 Route of Exposure:** Inhalation, skin contact and accidental 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:** LD50: 2,295 mg/kg - Oral Rat  
LC50: < 2.44 mg/l - Inhalation Rat; 4hr dust/mist  
LD50: > 2,000 mg/kg - Dermal Rabbit
- Eyes<sup>1</sup>:** May cause irreversible damage and burns to the eyes.  
**Skin<sup>1</sup>:** May cause mild irritation. Repeated skin contact may cause allergic skin reaction.  
**Ingestion<sup>1</sup>:** May be harmful if swallowed.  
**Inhalation:** Vapor may irritate nose and throat. Harmful if inhaled. Vapor overexposure may cause drowsiness.
- 11.4 Chronic Toxicity**
- Skin:** Repeated or prolonged exposure may cause irritation.  
**Ingestion:** Repeated ingestion or swallowing large amounts may injure internally.  
**Inhalation:** Prolonged or repeated exposure by inhalation may injure internally.
- 11.5 Other Health Hazard Information:** This material may liberate methanol upon exposure to moisture or humid air. Overexposure to methanol can result in blindness and nervous system effects.

*Note* <sub>1</sub> Based on product test data.  
<sub>2</sub> Based on test data from similar products.

### 12. ECOLOGICAL INFORMATION

- 12.1 Aquatic and Terrestrial Ecotoxicity**
- Ecotoxicity Effects:**
- Acute:** Toxic to aquatic life.  
**Chronic:** Toxic to aquatic life with long lasting effects.
- Fate and Effects in Waste Water Treatment Plants:** May cause adverse effects on bacteria.
- 12.2 Persistence and Degradability**
- Water:** This product hydrolyses in water or moist air, releasing methanol and organosilicons.



## Material Safety Data Sheet

Page No.:  
Last Revision Date: 2010/11/01  
Version No.: GHS 2.0

### KBR chem KBR-792 SILANE

#### 12.3 Bioaccumulative Potential

**Bioaccumulation:** No bioaccumulation potential.

**12.4 Mobility in Soil:** As a result of their physico/chemical properties, the products of hydrolysis will bind to sediment.

**12.5 Additional Environmental Information:** No specific information is available.

### 13. DISPOSAL CONSIDERATIONS

**13.1 Product Disposal:** This material must be disposed of as hazardous waste.

**13.2 Packaging Disposal:** Dispose of in accordance with local regulations.

### 14. TRANSPORT INFORMATION

#### 14.1 Road and Rail Transport

**UN No.:** NO  
**Proper Shipping Name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
**Technical Name:** Aminoethylaminopropyltrimethoxysilane

**Hazard Label(s):** Miscellaneous articles and substances

#### 14.2 Sea Transport (IMDG)

**UN No.:** NO  
**Proper Shipping Name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
**Technical Name:** Aminoethylaminopropyltrimethoxysilane

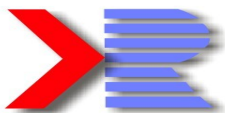
**Marine Pollutant (Yes/No):** Yes, Aminoethylaminopropyltrimethoxysilane  
**Hazard Label(s):** miscellaneous

#### 14.3 Air Transport (IATA)

**UN No.:** NO  
**Proper Shipping Name:** Environmentally hazardous substance, liquid, n.o.s.  
**Technical Name:** Aminoethylaminopropyltrimethoxysilane

**Hazard Label(s):** Miscellaneous dangerous goods  
Apply Gross Wt Supplemental Label to Outer Package if shipping Limited Quantity

**14.4 Special Requirements and Additional Information :** None.



## Material Safety Data Sheet

Page No.:  
Last Revision Date: 2010/11/01  
Version No.: GHS 2.0

### KBR chem KBR-792 SILANE

#### 15. REGULATORY INFORMATION

- 15.1 Applicable Laws:** Provisions of the Regulations for the Safe Handling of Chemicals in the Workplace  
The Regulations for Safe Management of Dangerous Chemicals (promulgated by the PRC Government on 1-2-2002.)  
Code of Practice for Safe Management of Dangerous Chemicals (Ministry of Labor, No.677-1992).  
General rule for classification and hazard communication of chemicals [GB 13690-2009]
- 15.2 Chemical Inventories**
- EINECS:** All ingredients listed or exempt.
- TSCA:** All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.
- AICS:** All ingredients listed or exempt.
- IECSC:** All ingredients listed or exempt.
- ENCS/ISHL:** All components are listed on ENCS/ISHL or its exempt rule.
- KECL:** All ingredients listed, exempt or notified.
- DSL:** All chemical substances in this material are included on or exempted from the DSL.
- PICCS:** Not determined.
- HSNO:** Not determined.

#### 16. OTHER INFORMATION

- 16.1 Contact Point:** Technical Information Center 400-233-9557
- 16.2 Prepared by:** HuangShan KBR chem Co.,LTD

**Legend:**

- No specific information available

This information is offered in good faith as typical values and not as a product specification. No warranty, expressed or implied, is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.