

MATERIAL SAFETY DATA SHEET

KEIM Silex-OH-100



1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: KEIM Silex-OH-100
CHEMICAL FAMILY: Tetraethylsilicate
PRODUCT USE: Consolidator

MANUFACTURER:

KEIM Mineral Coatings of America, Inc.
10615 Texland Boulevard, #600
Charlotte, NC 28273
Phone: 1-704-588-4811
Emergency Phone: only in US and Canada
1 800 535 5053 (INFOTRAC)

2. HAZARD IDENTIFICATION

POTENTIAL HEALTH EFFECTS: (Also see section 11)

EMERGENCY OVERVIEW: WARNING!
FLAMMABLE LIQUID AND VAPOR.
IRRITANT TO SKIN, EYES AND RESPIRATORY PASSAGES
OVEREXPOSURE MAY CAUSE DIZZINESS, DROWSINESS
AND CENTRAL NERVOUS SYSTEM EFFECTS.

ROUTES OF ENTRY: Skin and eye contact and inhalation.

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Appearance: Colorless liquid with a weak, characteristic odor

CARCINOGENICITY:

NTP: No, IARC: No, OSHA: No

This material is considered hazardous by the OSHA Hazard Communication Standard. (29CFR1910.1200)

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3. COMPOSITION/ INFORMATION ON INGREDIENTS

Component	CAS#	% by wt.
Tetraethyl silicate	78-10-4	25 - 50
Di-n-butyltin dilaurate	77-58-7	<1

4. FIRST AID MEASURES:

SKIN: Wash with soap or mild detergent and large amounts of water. Do not use solvents or thinners. Get medical attention if irritation occurs

EYES: Hold eyes open and flush for at least 15 minutes with large amounts of water. Get immediate medical attention.

INGESTION: Do not induce vomiting. Give two glasses of water to dilute stomach contents. Never give anything by mouth to an unconscious person. Get immediate medical attention.

INHALATION: Remove to fresh air. If breathing is difficult administer oxygen. Consult physician if irritation of respiratory passage occurs.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Alcohol foam, carbon dioxide, or dry powder.

SPECIAL FIRE FIGHTING PROCEDURES: Fight fire from a safe distance due to explosion hazard. Use self-contained breathing apparatus and full protective clothing.

6. ACCIDENTAL RELEASE MEASURES:

SPILL AND LEAK PROCEDURES: Remove all sources of ignition. Wear personal protective equipment. Contain spills using inert absorbent and place in suitable containers.

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7. HANDLING AND STORAGE

STORAGE: Keep away from heat, and all sources of ignition. Store closed containers in an area away from moisture, acids and bases. Do not store containers in direct sunlight. Keep in a well-ventilated area suitable for flammable material storage.

HANDLING: Observe all requirements for handling flammable liquids. Avoid skin and eye contact. Do not eat, drink or smoke in application area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMITS:

Component	CAS#	Exposure limits
Tetraethyl silicate	78-10-4	10 ppm TWA ACGIH
Di-n-butyltin dilaurate	77-58-7	0.1 mg/m ³ TWA 0.2 mg/m ³ STEL ACGIH
Ethanol*	64-17-5	1000 PPM TWA ACGIH

*Forms due to reaction or decomposition of tetraethyl silicate.

ENGINEERING CONTROLS: Use local exhaust ventilation. Use in an area with controls and equipment suitable for handling flammable liquids.

RESPIRATORY PROTECTION: For exposure to vapor or mist, or If airborne concentration becomes irritating, use a NIOSH approved respirator in accordance with OSHA Respiratory Protection requirements under 29 CFR 1910.134.

SKIN PROTECTION: Clothing and gloves suitable to avoid skin contact. Use butyl rubber gloves and protective clothing.

EYE PROTECTION: Safety goggles with side shields.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Property	Value
Appearance	Colorless liquid
Odor	Weak, characteristic
Flashpoint	104 °F (40°C)
Ignition Temperature	445 °F (230°C)
Lower Explosion Limit	1.3 vol. %
Upper Explosion Limit	23 vol. %
Vapor pressure at 20°C	233 hPa
Density at 20°C	0.99 g/cm ³
Viscosity, Dynamic at 25°C	1.6 mPas
Solubility in Water (20°C)	Insoluble/Hydrolyzes

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Decomposes and releases ethanol on contact with water.

HAZARDOUS DECOMPOSITION PRODUCTS: Ethanol.

POLYMERIZATION: Will not occur.

INCOMPATIBILITIES: Reacts with water, acids and bases and forms ethanol.

11. TOXICOLOGICAL INFORMATION

Tetraethyl silicate: LD50 oral-rat 6270- mg/kg

LD50 dermal-rabbit 5878 mg/kg

Dibutyltin dilaurate: LD50 oral-rat 175 mg/kg

Product is an irritant to eyes and respiratory passages.

Ethyl silicate caused liver, kidney and blood effects in laboratory animals.

12. ECOLOGICAL INFORMATION

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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13. DISPOSAL CONSIDERATIONS

Dispose of or incinerate in accordance with Federal, State or Local regulations.

14. TRANSPORT INFORMATION

DOT SHIPPING NAME: TETRAETHYL SILICATE MIXTURE
Class 3, UN 1292, Packing group III

15. REGULATORY INFORMATION

All components of this product are on the TSCA Inventory.

SARA Title III:

This product contains no toxic chemicals which are subject to the supplier notification requirements of Section 313 of the Superfund Amendments and Reauthorization Act (SARA/EPCRA) and the requirements of 40 CFR Part 372.

Note: Entries under this section cover only those regulations typically addressed in the MSDS generating process, such as, TSCA, and EPCRA/SARA Title III.

16. OTHER INFORMATION

HAZCOM LABEL: WARNING!
FLAMMABLE LIQUID AND VAPOR.
IRRITANT TO SKIN, EYES AND RESPIRATORY PASSAGES
OVEREXPOSURE MAY CAUSE DIZZINESS, DROWSINESS
AND CENTRAL NERVOUS SYSTEM EFFECTS.

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Version 3 includes changes to section 9.

Version 2 includes changes to sections 1, 2, 3, 8, 9 and 10

This MSDS conforms to the American National Standard, ANSI Z400.1-2004.

To the best of our knowledge, the information contained in this MSDS is accurate.

It is intended to assist the user in his evaluation of the product's hazards, and safety precautions to be taken in its use. The data on this MSDS relate only to the specific material designated herein. We do not assume any liability for the use of, or reliance on this information, nor do we guarantee its accuracy or completeness.

Version 3:

November 14, 2007

Version 2

September 13, 2007

Version 1:

August 24, 2006

KEIM Silex-OH-100(v3).doc