SAFETY DATA SHEET

SDS ID: SEAL 2.0

1. Identification

Product identifier **Atlas UltiBond Clear Silicone (Translucent)**

Recommended use Metal roof sealant

Recommended restrictions None Known.

Distributor information

Name Atlas Bolt and Screw LLC
Address 1628 Troy Rd. Ashland, OH 44805

Telephone Number 419-289-6171
Fax Number 419-289-2564

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards

Serious eye damage/eye irritation	Category 2
Sensitization, skin	Category 1
Reproductive toxicity (fertility)	Category 2
Specific target organ toxicity, repeated exposure	Category 2 (Cardiovascular / Hematological: hematopoiesis)

Environmental hazards Not classified.

OSHA defined hazards Not classified.

*Hazards not stated here are "Not classified", "Not applicable" or "Classification not possible".

Label elements

Signal word Warning

Hazard statement Causes serious eye irritation. May cause an allergic skin reaction. Suspected of damaging fertility. May cause damage to organs (Cardiovascular / Hematological: hematopoiesis) through prolonged or repeated exposure.

Precautionary statement

Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Response IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Get medical advice/attention if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF exposed or concerned: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

Storage Store locked up.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information None.

Substance(s) formed under the condition of use	This product reacts with water , moisture or humid air to evolve following compounds: Methylethylketoxime
HMIS® ratings	Health: 2* Flammability: 1 Physical hazard: 0

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Methyloximesilane*		Proprietary*	1 - < 3
Vinyloximesilane*		Proprietary*	< 1
Alkoxysilane*		Proprietary*	< 1
Methylethylketoxime(Impurity)		96-29-7	< 1
Octamethylcyclotetrasiloxane (Impurity)		556-67-2	< 1

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Wash off with soap and plenty of water. For minor skin contact, avoid spreading material on unaffected skin. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
Eye contact	Rinse immediately with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention immediately.
Most important symptoms/effects, acute and delayed	Dermatitis. Rash. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause an allergic skin reaction. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	By heating and fire, harmful vapors/gases may be formed. Nitrogen oxides. (corrosive)
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet, gloves, rubber boots, and self-contained breathing apparatus.
Fire-fighting equipment/instructions	Move containers from fire area if you can do so without risk.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Local authorities should be advised if significant spillages cannot be contained. Do not touch or walk through spilled material. Ensure adequate ventilation. Wear appropriate personal protective equipment.

Methods and materials for containment and cleaning up

Eliminate sources of ignition.

Large Spills: Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills in original containers for re-use.

Environmental precautions

Prevent further leakage or spillage if safe to do so.

7. Handling and storage

Precautions for safe handling

Provide adequate ventilation. Use care in handling/storage. Obtain special instructions before use. Wash hands thoroughly after handling. Do not handle until all safety precautions have been read and understood. Do not breathe mist or vapor. Avoid contact with eyes. Avoid contact with skin.

Conditions for safe storage, including any incompatibilities

Store locked up. Keep container tightly closed. Keep out of the reach of children. Store in a cool, dry place out of direct sunlight. Keep in original container.

8. Exposure controls/personal protection

Occupational exposure limits

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
Methylethylketoxime(Impurity) (CAS 96-29-7)	TWA	36 mg/m3
		10 ppm

Vendor guide

Components	Type	Value
Methylethylketoxime(Impurity) (CAS 96-29-7)	STEL	10 ppm
	TWA	3 ppm

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Provide adequate general and local exhaust ventilation. Provide eyewash station.
Pay attention to ventilation such as local exhaust, mechanical and/or door open for at least 24 hours after application.

Individual protection measures, such as personal protective equipment

Eye/face protection

Tightly sealed safety glasses according to EN166.

Skin protection

Hand protection

Wear protective gloves.

Other

Wear suitable protective clothing.

Respiratory protection

If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection.

Thermal hazards

Wear appropriate thermal protective clothing, whennecessary.

General hygiene considerations

Avoid contact with eyes. Avoid contact with skin. When using, do not eat, drink or smoke. Keep away from food and drink. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the workplace. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Appearance

Form

Paste.

Color

Translucent

Odor

Oxime odor

Odor threshold

Not available.

pH

Not available.

Melting point/freezing point

Not applicable

Initial boiling point and boiling range

Not applicable

Flash point	204.8 °F (96 °C) Closed Cup
Evaporation rate	< 1 (Butyl Acetate=1)
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	No data
Flammability limit - upper (%)	No data
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Negligible (25 °C)
Vapor density	> 1 (air=1)
Relative density	1.03 (25 °C)
Solubility(ies)	
Solubility (water)	Not soluble
Partition coefficient (n-octanol/water)	Not applicable
Auto-ignition temperature	No data
Decomposition temperature	Not available.
Viscosity	Not applicable
Other information	
Molecular weight	Not applicable

10. Stability and reactivity

Reactivity	No hazardous reaction known under normal conditions of use, storage and transport.
Chemical stability	Stable at normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does notoccur.
Conditions to avoid	None known.
Incompatible materials	Strong oxidizing agents. Water, moisture.
Hazardous decomposition products	This product reacts with water, moisture or humid air to evolve following compounds: Methylethylketoxime. Refer to section 8 : exposure controls/personal protection and section 11 : toxicological information. Thermal breakdown of this product during fire or very high heat condition may evolve the following hazardous decompositionproduct: Carbon oxides and traces of incompletely burned carbon compounds. Silicon dioxide. Nitrogen oxides. Formaldehyde.

11. Toxicological information

Information on likely routes of exposure

Ingestion	No significant effects are expected.
Inhalation	No significant effects are expected.
Skin contact	May cause an allergic skin reaction.
Eye contact	Causes serious eye irritation.
Symptoms related to the physical, chemical and toxicological characteristics	

Dermatitis. Rash. Severe eye irritation.	Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause an allergic skin reaction.

Information on toxicological effects

Acute toxicity

Components	Species	Test Results
Alkoxysilane (CAS Proprietary)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg

Components	Species	Test Results
		16 ml/kg
Inhalation		
LC50	Rat	1.49 - 2.44 mg/l/4h
Oral		
LD50	Rat	2995 mg/kg
		2400 mg/kg
Methylethylketoxime(Impurity) (CAS 96-29-7)		
Acute		
Dermal		
LD50	Rabbit	200 µl/kg
Oral		
LD50	Rat	930 mg/kg

Skin corrosion/irritation SKIN-RABBIT : Moderately irritating [Alkoxysilane]

SKIN-RABBIT : 500mg/24hr MILD [Octamethylcyclotetrasiloxane]

Serious eye damage/eye irritation Causes serious eye damage. [Vinyloximesilane] [Methylethylketoxime]
EYE-RABBIT : 15mg SEVERE [Alkoxysilane]
Causes serious eye irritation. [Methyloximesilane]
EYE-RABBIT : MILD [Octamethylcyclotetrasiloxane]

Respiratory or skin sensitization

Respiratory sensitization Not available.

Skin sensitization May cause an allergic skin reaction. [Methyloximesilane] [Vinyloximesilane] [Methylethylketoxime]
Positive (Guinea pig) [Alkoxysilane]
No evidence of sensitization [Octamethylcyclotetrasiloxane]

Germ cell mutagenicity Negative(Ames test, Chromosome analysis, Micronucleus test) [Alkoxysilane]
Negative(Bacteria) [Octamethylcyclotetrasiloxane]

Carcinogenicity Suspected of causing cancer. [Methylethylketoxime]

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity Octamethylcyclotetrasiloxane administered to rats by whole body inhalation at concentrations of 500 and 700 ppm for 70 days prior to mating, through mating, gestation and lactation resulted in decreases in live litter size. Additionally, increases in the incidence of deliveries ofoffspring extending over an unusually long time period (dystocia) were observed at these concentrations. Statistically significant alterations in these parameters were not observed in the lower concentrations evaluated (300 and 70 ppm). In a previous range-finding study, rats exposed to vapor concentrations of 700 ppm had decreases in the number of implantation sites and live litter size. The significance of these findings to humans is not known. [Octamethylcyclotetrasiloxane]
Developmental toxicity: NOAEL 500mg/kg/day (Rat), Maternal toxicity: NOAEL 500mg/kg/day (Rat) [Alkoxysilane]

Specific target organ toxicity - single exposure Not available.

Specific target organ toxicity - repeated exposure

May cause damage to the following organs through prolonged or repeated exposure: Cardiovascular / Hematological : hematopoiesis. [Vinyloximesilane]
Cardiovascular / Hematological : hematopoiesis. [Methyloximesilane]

Repeated inhalation or oral exposure of mice and rats to octamethylcyclotetrasiloxane produced an increase in liver size. No gross histopathological or significant clinical chemistry effects were observed. An increase in liver metabolizing enzymes, as well as a transient increase in the number of normal cells (hyperplasia) followed by an increase in cell size (hypertrophy) were determined to be the underlying causes of the liver enlargement. The biochemical mechanisms producing these effects are highly sensitive in rodents, while similar mechanisms in humans are insensitive. A two year combined chronic and carcinogenicity assy was conducted on octamethylcyclotetrasiloxane. Rats were exposed by whole-body vapor inhalation 6hrs/day, 5days/week for up to 104weeks to 0, 10, 30, 150 or 700ppm of octamethylcyclotetrasiloxane. The increase in incidence of (uterine)endometrial cell hyperplasia and uterine adenomas(benign tumors) were observed in female rats at 700ppm. Since these effects only occurred at 700ppm, a level that greatly exceeds typical workplace or consumer exposure, it is unlikely that industrial, commercial or consumer uses of products containing octamethylcyclotetrasiloxane would result in a significant risk to humans. [Octamethylcyclotetrasiloxane]

Aspiration hazard

Not available.

Chronic effects

Not available.

Further information

Additional Information
Methyl Ethyl Ketoxime (MEKO). Material will generate MEKO on exposure to humid air gradually. Male rodents exposed to MEKO vapor at high concentration throughout their lifetime developed liver cancer. But relevance to humans is uncertain now. Please read the detail information to MEKO below
Skin Irritation ;Causes mild irritation. Can be absorbed through the skin.
Eyes Irritation ;Causes severe irritation.
Acute Oral Tox. ;LD50(rat)= >900mg/kg.
Acute Dermal Tox. ;LD50(rabbit)= >1000mg/kg.
Acute Inhalation Tox.;LC50(rat) > 4.83mg/l/4Hr
Inhalation Tox. ;Shows narcotic action at high concentration. May produce blood effects
Skin Sensitization ;Positive(guinea pig)
Neurotoxicity ;High dose can produce transient and reversible change in neurobehavioral function.
Carcinogenicity ;Liver carcinomas were observed in a lifetime inhalation study (ca.2 years) in which mice and rats were exposed.
Other Chronic Study ;Degenerative effects on the olfactory epithelium of nasal passages occured in a concentration related manner in males and females of mice and rats at MEKO concentration of 15, 75 and 375ppm. The significant change in hematological parameters were observed at 404ppm concentration.
Workplace Environmental Exposure Level; Vendor guide ; 3ppm(TWA),10ppm(STEL), AIHA WEEL ; 10ppm(TWA)

12. Ecological information

Ecotoxicity

Toxic to aquatic life. Toxic to aquatic life with long lasting effects. [Alkoxysilane]

May cause long lasting harmful effects to aquatic life. [Octamethylcyclotetrasiloxane]

Components		Species	Test Results
Alkoxysilane (CAS Proprietary)			
Aquatic			
Algae	EbC50	Green algae (Selenastrum capricornutum)	5.5 mg/l, 72 hr
	ErC50	Green algae (Selenastrum capricornutum)	8.8 mg/l, 72 hr
Crustacea	EC50	Water flea (Daphnia magna)	90 mg/l, 48 hr
Fish	LC50	Bluegill (Lepomis macrochirus)	> 100 mg/l, 96 hr
		Fathead minnow (Pimephales promelas)	> 100 mg/l, 96 hr
		Rainbow Trout	> 100 mg/l, 96 hr
Methylethylketoxime(Impurity) (CAS 96-29-7)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	777 - 914 mg/l, 96 hours

Persistence and degradability

Causes easily hydrolysis in water or atmosphere. [Alkoxysilane]

Bioaccumulative potential Bio concentration Factor(BCF) / (Fathead minnows) : 12400 [Octamethylcyclotetrasiloxane]

Mobility in soil Not available.

Other adverse effects Not available.

13. Disposal considerations

Disposal instructions Follow applicable Federal, State and Local regulations.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code This product is not intended to be transported in bulk.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 313 (TRI reporting)

US state regulations

US. Massachusetts RTK - Substance List

Not regulated.

US. New Jersey Worker and Community Right-to-Know Act

Not listed.

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed.

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory(yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes

Country(s) or region	Inventory name	On inventory(yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by thegoverning country(s).

16. Other information, including date of preparation or last revision

Issue date 03-13-2015

Version # 01

NFPA ratings Health: 2
Flammability: 1
Instability: 0

NFPA ratings

Disclaimer 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 theyare appropriate.
This product has been designed, manufactured and developed solely for general industrial use only. This product is not designed for, intended for use as, or suitable for, medical, surgical or other particular purposes. Users have the sole responsibility and obligation to determine the suitability of this product for any application, to make preliminary tests, and to confirm the safety of this product for their use. Users must never use this product for the purpose of implantation into the human body and/or injection into humans.

Revision Information Product and Company Identification: Product and Company Identification
Composition / Information on Ingredients: Disclosure Overrides
Physical & Chemical Properties: Multiple Properties
Toxicological Information: Toxicological Data
Ecological Information: Ecotoxicity
Transport Information: Material Transportation Information
Regulatory Information: United States
GHS: Classification