SAFETY DATA SHEET

1. Identification

Product identifier **Andisil MOS**

Other means of identification

SDS number MOS Master

Product code 8164

Recommended use Polymer for adhesives/sealants/coatings

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Company name AB Specialty Silicones LLC

Address 3790 Sunset Ave.
Waukegan, IL 60087
US

Telephone General Assistance: 847-599-7765

E-mail info@andisil.com

Contact person Health & Safety Manager

Emergency phone number 24 hour: CHEMTREC 800-424-9300

2. Hazard(s) identification

Physical hazards	Flammable liquids	Category 4
Health hazards	Serious eye damage/eye irritation	Category 2A
	Sensitization, skin	Category 1
	Carcinogenicity	Category 2
	Specific target organ toxicity, repeated exposure	Category 2
	Aspiration hazard	Category 1

OSHA defined hazards Not classified.

Label elements

Signal word Danger

Hazard statement Combustible liquid. May be fatal if swallowed and enters airways. May cause an allergic skin reaction. Causes serious eye irritation. Suspected of causing cancer. May cause damage to organs (blood) 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. Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Response Do NOT induce vomiting. If swallowed: Immediately call a poison center/doctor.

Storage Store in a well-ventilated place. Keep cool. 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

Not applicable.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Methyl-tris (2-butanonoxime)silane	22984-54-9	< 100
2-butanone oxime	96-29-7	< 1

2-Butanone Oxime is formed by reaction of polymer with water.

4. First-aid measures

Inhalation
Move to fresh air. If breathing is difficult, give oxygen. Call a physician if symptoms develop or persist.

Skin contact
For minor skin contact, avoid spreading material on unaffected skin. Wash clothing separately before reuse. Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions.

Eye contact
Immediately flush eyes 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
Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Most important symptoms/effects, acute and delayed
Aspiration may cause pulmonary edema and pneumonitis. Causes serious eye irritation. Symptoms include itching, burning, redness, and tearing of eyes. May cause allergic skin reaction. Symptoms include redness, itching and pain. Rash.

Indication of immediate medical attention and special treatment needed
Provide general supportive measures and treat symptomatically.

General information
Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media
Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media
Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical
The product is combustible, and heating may generate vapors which may form explosive vapor/air mixtures. During fire, gases hazardous to health may be formed.
This product contains methylpolysiloxanes which can generate formaldehyde at approximately 300 º F (150 º C) and above, in atmospheres which contain oxygen.

Special protective equipment and precautions for firefighters
Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Structural firefighters protective clothing will only provide limited protection.

Specific methods
Use standard firefighting procedures and consider the hazards of other involved materials. Move container from fire area if it can be done without risk.

General fire hazards
Combustible liquid.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Do not breathe mist or vapor. Ensure adequate ventilation. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. In case of spills, beware of slippery floors and surfaces. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see Section 8 of the SDS.

Methods and materials for containment and cleaning up
Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

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

Never return spills to original containers for re-use. For waste disposal, see Section 13 of the SDS.

Environmental precautions
Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from open flames, hot surfaces and sources of ignition. Ground container and transfer equipment to eliminate static electric sparks, especially during transfer of material. Do not breathe mist or vapor. Provide adequate ventilation. Avoid contact with eyes, skin, and clothing. Wear appropriate personal protective equipment. Wash hands thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Keep away from heat, sparks and open flame. Take precautionary measures against static discharges. Store locked up. Store in a cool, dry, well-ventilated place. Keep container tightly closed. Keep in an area equipped with sprinklers. Store away from incompatible materials, see Section 10 of the SDS.

8. Exposure controls/personal protection

Occupational exposure limits

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
2-butanone oxime (CAS 96-29-7)	TWA	36 mg/m3
		10 ppm

Biological limit values

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

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

This product may be capable of generating 0.1 ppm or greater formaldehyde vapors under certain use conditions. According to OSHA 29 CFR 1910.1048, formaldehyde vapors may be considered hazardous if workplace airborne concentrations exceed 0.1 ppm.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection

Wear appropriate chemical resistant gloves.

Other

Wear appropriate chemical resistant clothing.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA 29 CFR 1910.134.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance

Clear to light yellow liquid.

Physical state

Liquid.

Form

Liquid.

Color

Clear to yellow.

Odor

Aromatic.

Odor threshold

Not available.

pH

Not available.

Melting point/freezing point

Not determined.

Initial boiling point and boiling range

> 572 °F (> 300 °C)

239 °F (115 °C) at 12mm

Flash point

> 145.4 °F (> 63.0 °C) Pensky-Martens Closed Cup

Evaporation rate	< 1 (n-butylacetate = 1)
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	< 0.1 mbar at 68 °F
Vapor density	> 1 at 25 °C (Air = 1) 8.09 - 8.26 lbs/gallon at 68 °F
Relative density	0.97 - 0.99 at 25 °C
Solubility(ies)	
Solubility (water)	Insoluble (water).
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	5 - 15 cSt at 20 °C 5 - 15 mPa·s at 77 °F
Other information	
Molecular formula	C13H27N3O3Si
Percent volatile	Not determined.

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use. Hazardous polymerization does not occur.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Water. Strong oxidizing agents. Alcohols. Acids. Iron. May react violently upon contact with electrophiles such as ferrous chloride.
Hazardous decomposition products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors. Methylpolysiloxanes can generate formaldehyde at approximately 300 degrees Fahrenheit (150 °C) and above, in atmospheres which contain oxygen.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May be fatal if swallowed and enters airways. May cause damage to organs by inhalation.
Skin contact	May cause an allergic skin reaction.
Eye contact	Causes serious eye irritation.
Ingestion	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.
Symptoms related to the physical, chemical and toxicological characteristics	Aspiration may cause pulmonary edema and pneumonitis. Suspected of causing cancer. Causes serious eye irritation. Symptoms include itching, burning, redness, and tearing of eyes. May cause an allergic skin reaction. Symptoms include redness, itching and pain. Rash.

Information on toxicological effects

Acute toxicity	May be fatal if swallowed and enters airways.

Components	Species	Test Results
Methyl-tris (2-butanonoxime)silane (CAS 22984-54-9)		
NOAEL	Rat	10 mg/kg

Components	Species	Test Results
Acute		
Oral		
LD50		2463 mg/kg

Skin corrosion/irritation Due to lack of data the classification is not possible.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory or skin sensitization

Respiratory sensitization Due to lack of data the classification is not possible.

Skin sensitization May cause an allergic skin reaction.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity Suspected of causing cancer.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity Due to lack of data the classification is not possible.

Specific target organ toxicity - single exposure Due to lack of data the classification is not possible.

Specific target organ toxicity - repeated exposure May cause damage to organs (blood) through prolonged or repeated exposure.

Aspiration hazard May be fatal if swallowed and enters airways.

Chronic effects Prolonged inhalation may be harmful. May cause damage to organs through prolonged or repeated exposure.

12. Ecological information

Ecotoxicity The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available for this product.

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations.

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

UN number NA1993

UN proper shipping name Combustible liquid, n.o.s. (Methyl-tris (2-butanonoxime)silane)

Transport hazard class(es)

Class Combustible liq

Subsidiary risk -

Label(s) None

Packing group	III
Special precautions for user	This material is not regulated under 49 CFR if in a container of 119 gallon capacity or less. Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.
Special provisions	IB3, T1, T4, TP1
Packaging exceptions	150
Packaging non bulk	203
Packaging bulk	241

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 Not available.

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 listed on or exempt from the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

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

This product contains the following chemical(s) known to the State of California to cause cancer and birth defects or other reproductive harm:
None known.

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

*A "Yes" indicates this product complies 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 the governing country(s).

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

Issue date 31-January-2014

Revision date 02-January-2015

Version # 02

HMIS® ratings Health: 2*
Flammability: 2
Physical hazard: 1

Disclaimer This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment. The information in the sheet was written based on the best knowledge and experience currently available.