Safety Data Sheet

1. IDENTIFICATION OF SUBSTANCE

1.1 Name: 3-Glycidoxypropyltrimethoxysilane AL160 Other Names: SG160; GLYMO; A-187; Z-6040 CAS No.: 2530-83-8

1.2 Identified uses: Industrial use as a **c**oupling agent, adhesion promoter, etc., in sealants, coatings and other applications

1.3 Supplier: AL₂Chem LLC 649 Route 206 Suite 9-132 Hillsborough, NJ 08844

1.4 Emergency Call: CHEMTREC® US 800-424-9300 International +1-703-527-3887

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture GHS Classification in accordance with 29 CFR 1910 (OSHA HCS) Serious eye damage (Category 1), H318 Acute aquatic toxicity (Category 3), H402 For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements

PictogramSignal wordDangerHazard statement(s)H318Causes serious eye damage.H402Harmful to aquatic life.Precautionary statement(s)P273Avoid release to the environment.P280Wear eye protection/ face protection.P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses,if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.

P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

2. COMPOSITION AND INFORMATION ON COMPONENTS

Name: 3-Glycidoxypropyltrimethoxysilane, minimum purity 98%Formula:C9H20O5SiMinor Impurities:Not determinedCAS Number:2530-83-8EINECS Number:219-784-2RTECS Number:VV4025000

4. FIRST AID MEASURES

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Get medical aid. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: Do not induce vomiting. Get medical aid.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

5. FIREFIGHTING MEASURES

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand,

MSHA/NIOSH (approved or equivalent), and full protective gear. Water reactive. Material will react with water and may release a flammable and/or toxic gas.

Extinguishing Media: Use foam, dry chemical, or carbon dioxide. DO NOT USE WATER!

Flash Point: 122 deg C (251.60 deg F)

Autoignition Temperature: 400 deg C (752.00 deg F)

Explosion Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 1; Flammability: 1; Instability: 2; Special Hazard: -W-

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections For disposal see section 13.

7. HANDLING AND STORAGE

Handling: Do not get in eyes, on skin, or on clothing. Do not ingest or inhale. Use with adequate ventilation. Do not allow contact with water.

Storage: Store in a cool, dry place. Store in a tightly closed container. Water free area.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits:

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
3-Glycidoxypropyltrimethoxysilane	none listed	none listed	none listed

OSHA Vacated PELs: 3-Glycidoxypropyltrimethoxysilane: No OSHA Vacated PELs are listed for this chemical. **Personal Protective Equipment**

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Colorless transparent liquid Physical Constants: Boiling Point: 290°C [760mmHg] Molecular Formula: C₉H₂₀O₅Si Formula Weight: 236.34 Water Solubility: NA Density: 1.070±0.005 Flash Point: 110°C

Information on toxicological effects

11.1

10. STABILITY AND REACTIVITY

Chemical Stability: May decompose on exposure to moist air or water. Reacts with water.
Conditions to Avoid: Incompatible materials, exposure to moist air or water.
Incompatibilities with Other Materials: Strong oxidizing agents, strong acids, water, bases, peroxides.
Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, silicon dioxide, methanol.
Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute toxicity LD50 Oral - Rat - 8,030 mg/kg LD50 Dermal - Rabbit - 4,248 mg/kg No data available Skin corrosion/irritation Serious eye damage/eye irritation Eyes - Rabbit Result: Risk of serious damage to eyes. Respiratory or skin sensitisation No data available Germ cell mutagenicity No data available Carcinogenicity IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH. NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. Reproductive toxicity No data available No data available Specific target organ toxicity - single exposure No data available Specific target organ toxicity - repeated exposure No data available Aspiration hazard No data available

Additional Information

RTECS: VV4025000

Material may form a siloxane polymer on the skin, eyes, or in the lungs. In the event of direct contact of the liquid with these tissues, seek medical attention. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL EFFECTS

12.1 Toxicity

Toxicity to fish LC50 - Cyprinus carpio (Carp) - 55 mg/l - 96 h

LC0 - Cyprinus carpio (Carp) - 30 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia magna (Water flea) - 473 mg/l - 48 h

Toxicity to algae

EC50 - Desmodesmus subspicatus (green algae) - 255 mg/l - 72 h

12.2 Persistence and degradability

Biodegradability Result: - Readily biodegradable.

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

Harmful to aquatic life.

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. No data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Contact a licensed professional waste disposal service to dispose of this material. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product

14. TRANSPORT INFORMATION

UN Number: none listed

Proper Shipping Name: None

Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Non-Hazardous for Air Transport

15. REGULATORY INFORMATION

US FEDERAL

TSCA: CAS# 2530-83-8 is listed on the TSCA inventory.

Health & Safety Reporting List: None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules: None of the chemicals in this product are under a Chemical Test Rule.

Section 12b: None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule: None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs: None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances: None of the chemicals in this product have a TPQ.

Section 313 No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 2530-83-8 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations European Labeling in Accordance with EC Directives Hazard Symbols: Not available. Risk Phrases: Safety Phrases: S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

CAS# 2530-83-8: 1

Canada - DSL/NDSL: CAS# 2530-83-8 is listed on Canada's DSL List.

Canada – WHMIS:

This product has a WHMIS classification of D2B.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List: CAS# 2530-83-8 is not listed on the Canadian Ingredient Disclosure List.

16. OTHER INFORMATION

HMIS Rating

Health hazard:	2
Flammability:	1
Physical Hazard	0

NFPA Rating

Health hazard:	2
Fire Hazard:	1
Reactivity Hazard:	0

Revised: 2015-June-01

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