



Material Safety Data Sheet

SEALANT ACETOXY EXTENDED – SOLARSIL S201

[This MSDS is prepared pursuant to the provision of Article 41 of the Industrial Safety and Health Law]

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

| | |
|---|--|
| 1.1 Product Name: | SEALANT ACETOXY EXTENDED – SOLARSIL S201 |
| 1.2 Manufacturer's Product Code: | |
| 1.3 Chemical Classification: | Silicone Sealant |
| 1.4 Recommended Product Usage and Limited Use: | Sealant and adhesive |
| 1.5 Company Details: | |
| Manufacturer/Supplier: | Gio Corporation |
| Address: | MIHO B/D 4F, 394-10, GALHYUN-DONG, EUNPYUNG-GU, SEOUL, KOREA |
| Telephone Number: | 82-2-1644-6582 |

2. HAZARD IDENTIFICATION

| | |
|--|---|
| 2.1 Hazard Classification: | Not hazardous. |
| 2.2 Label Elements Including Precautionary Statements: | |
| Symbol: | None. |
| Signal Word: | None. |
| Hazard Risk Statement: | Not hazardous. |
| Precautionary Statement: | |
| Prevention: | Avoid contact with skin and eyes. |
| Response: | 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. |
| Storage: | Not applicable. |
| Disposal: | Not applicable. |
| 2.3 Other Hazard. Risk which are not included in the classification criteria: | None know |

3. COMPOSITION / INFORMATION ON INGREDIENTS

| <u>Chemical Name</u> | <u>Common Name or</u> | <u>CAS No.</u> | <u>% (w/w)</u> | <u>Synonym</u> <u>GHS Classification</u> |
|----------------------|-----------------------|----------------|----------------|---|
|----------------------|-----------------------|----------------|----------------|---|



Hydrotreated middle petroleum distillates - 64742-46-7 30 - <35 Aspiration hazard: Category 1

Other ingredients not listed in this section are non-hazardous or business confidential.

4. FIRST AID MEASURES

- | | | |
|-----|----------------------------------|--|
| 4.1 | If in Eyes: | Immediately flush with water for 15 minutes. |
| 4.2 | If on Skin: | Wash off with soap and water. |
| 4.3 | If Inhaled: | Remove to fresh air. |
| 4.4 | If Ingested: | Get medical attention. |
| 4.5 | Other Note to physicians: | Treat according to person's condition and specifics of exposure. Treat symptomatically. For further information, the Medical Practitioner should refer to the phone number in Section 1. |

5. FIRE-FIGHTING MEASURES

5.1 Suitable (and Unsuitable) Extinguishing Media:

Suitable: On large fires use dry chemical, foam or water spray. On small fires use carbon dioxide (CO₂), dry chemical or water spray. Water can be used to cool fire exposed containers.

nsuitable: None established.

5.2 **Specific Hazards Arising from the Chemical(e.g. nature of any Hazardous Combustion Products):** Carbon oxides and traces of incompletely burned carbon compounds. Silicon dioxide. Formaldehyde.

5.3 **Special Protective Equipment and Precautions for Fire-Fighters:** Determine the need to evacuate or isolate the area according to your local emergency plan. Use water spray to keep fire exposed containers cool. Self-contained breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals.

6. ACCIDENTAL RELEASE MEASURES

6.1 **Personal Precautions and Protective Equipment:** Avoid skin and eye contact. Do not breathe vapour. Do not take internally.

6.2 **Environmental Precautions:** Do not allow large quantities to enter drains or surface waters.



6.3 Methods for Cleaning up: Observe all personal protective equipment recommendations described in this MSDS. If diked material can be pumped, store recovered material in appropriate container. Wipe up or scrape up and contain for salvage or disposal. 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. Avoid skin and eye contact. Do not breathe vapour. Do not take internally. Exercise good industrial hygiene practice. Wash after handling, especially before eating, drinking or smoking.

7.2 Storage Conditions (including any incompatibilities): Use reasonable care and store away from oxidizing materials.

8. PREVENTIVE MEASURES/PERSONAL PROTECTIVE EQUIPMENT

8.1 Occupational Exposure Limit Values, Biological Limit Values:

Industrial Hygiene Standards:

| <u>Ingredients</u> | <u>CAS No.</u> | <u>Exposure Limits</u> |
|---|----------------|---|
| Hydrotreated middle petroleum distillates | 64742-46-7 | Observe oil mist limits. OSHA PEL (final rule) and ACGIH TLV: TWA 5 mg/m3; ACGIH STEL 10 mg/m3. |

8.2 Engineering Controls:

Local Ventilation: Recommended.

General Ventilation: Recommended.

8.3 Personal Protective Equipment:

Routine Handling:

Respiratory protection: Suitable respiratory protection should be worn if the product is used in large quantities, confined spaces or in other circumstances where the OEL may be approached or exceeded.

Suitable Respirator: Organic Vapor/Acid Gas Type.

Eye protection: Use proper protection - safety glasses as a minimum.

Hand protection: Chemical protective gloves should be worn where repeated or prolonged contact can occur.



- Skin protection:** Washing at mealtime and end of shift is adequate.
- Hygiene Measures:** Exercise good industrial hygiene practice. Wash after handling, especially before eating, drinking or smoking.
- Spills:**
- Respiratory protection:** Use self-contained breathing apparatus (SCBA) or other supplied-air respirator.
- Eye protection:** Use full face respirator.
- Skin protection:** Washing at mealtime and end of shift is adequate.
- Precautionary Measures:** Avoid skin and eye contact. Do not breathe vapour. Do not take internally. Use reasonable care.

Note: These precautions are for room temperature handling. Use at elevated temperature or aerosol/spray applications may require added precautions.

9. PHYSICAL AND CHEMICAL PROPERTIES

- 9.1 **Appearance(physical state, colour etc):** Paste
Translucent white
- 9.2 **Odour:** Acetic acid odor
- 9.3 **Odour Threshold:** Not determined.
- 9.4 **pH:** Not determined.
- 9.5 **Melting Point/ Freezing Point:** Not determined.
- 9.6 **Initial Boiling Point and Boiling Range:** Not determined.
- 9.7 **Flash Point:** 100 °C (Seta Closed Cup)
- 9.8 **Evaporation Rate:** Not determined.
- 9.9 **Flammability (solid, gas):** Not applicable.
- 9.10 **Upper/ Lower Flammability or Explosive Limit:**
Upper Limit: Not determined.
Lower Limit: Not determined.
- 9.11 **Vapor Pressure @ 25°C:** Not determined.
- 9.12 **Solubility in Water:** Not determined.
- 9.13 **Vapour Density (air=1):** Not determined.
- 9.14 **Specific Gravity:** 0.95
- 9.15 **Octanol/water partition coefficient:** Not determined.
- 9.16 **Autoignition Temperature:** Not determined.
- 9.17 **Decomposition Temperature:** Not determined.
- 9.18 **Viscosity:** Not determined.
- 9.19 **Molecular Weight:** Not determined.

The above information is not intended for use in preparing product specifications.

10. STABILITY AND REACTIVITY



- 10.1 Chemical Stability and Possibility of Hazardous Reactions:** Stable. Hazardous polymerization will not occur.
- 10.2 Conditions to avoid:** None.
- 10.3 Materials to avoid:** Can react with strong oxidising agents.
- 10.4 Hazardous Decomposition Products:** Carbon oxides and traces of incompletely burned carbon compounds. Silicon dioxide. Formaldehyde.

11. TOXICOLOGICAL INFORMATION

11.1 Information on the likely Routes of Exposure:

- Respiratory:** Exposure is unexpected.
Oral: Exposure is expected.
Eye, Skin: Exposure is expected.

11.2 Information on the Health Hazards

- Acute Toxicity:** None known.
- Eyes:** Vapours released during curing may cause eye irritation.
- Skin:** May cause mild irritation.
- Inhalation:** Vapor may irritate nose and throat.
- Ingestion:** Low ingestion hazard in normal use.
- Chronic Toxicity:**
- Skin:** Repeated or prolonged contact may cause defatting and drying of skin which may result in skin irritation and dermatitis.
- Inhalation:** No known applicable information.
- Ingestion:** Repeated ingestion or swallowing large amounts may injure internally.
- Other Health Hazard Information:** No known applicable information.
- Skin Corrosion/ Irritation:** Please refer to Section 3.
- Serious Eye Damage/ Irritation:** Please refer to Section 3.
- Respiratory Sensitization:** Please refer to Section 3.
- Skin Sensitization:** Please refer to Section 3.
- Carcinogenicity:** None known.



Germ Cell Mutagenicity: Please refer to Section 3.

Reproductive Toxicity: Please refer to Section 3.

**Specific Target Organ.
Systemic Toxicity (Single
Exposure):** Please refer to Section 3.

**Specific Target Organ.
Systemic Toxicity
(Repeated Exposure):** Please refer to Section 3.

Aspiration Hazard: Please refer to Section 3.

12. EFFECTS ON THE ENVIRONMENT

12.1 Ecotoxicity:

Environmental Effects

Acute: No adverse effects on aquatic organisms are predicted.

Chronic: No adverse effects on aquatic organisms are predicted.

12.2 Persistence and Degradability:

**Environmental Fate and
Distribution:** This product is a solid and does not contain significant concentrations of water soluble constituents that may be leached from the product. It is therefore not likely to present a danger to terrestrial organisms.

Water: Solid material, insoluble in water.

12.3 Bioaccumulative Potential:

Bioaccumulation: No bioaccumulation potential.

12.4 Mobility in Soil:

None known.

12.5 Additional Environmental Information:

**Fate and Effects in Waste
Water Treatment Plants:** No adverse effects on bacteria are predicted.

13. DISPOSAL CONSIDERATIONS

13.1 Product Disposal: Dispose of in accordance with local regulations.

13.2 Disposal precaution: Dispose of in accordance with local regulations.

14. TRANSPORT INFORMATION

14.1 Sea transport (IMDG):



UN No.: Not subject to IMDG code.
Class: Not subject to IMDG code.
Packing Group: Not subject to IMDG code.
Proper Shipping Name: Not subject to IMDG code.
Technical Name: Not subject to IMDG code.
Marine Pollutant (Yes/No): Not subject to IMDG code.
Hazard Label(s): Not subject to IMDG code.

14.2 Transportation Precautions:

Transport in accordance with the relevant regulations. Refer to section 7.2 for further information on transportation requirements. Refer to section 6 for the safety measures to be taken in the event of accidental release.

14.3 Other International Transportation Regulations

Air Transport (IATA-DGR):

UN No.: Not subject to IATA regulations.
Class: Not subject to IATA regulations.
Packing Group: Not subject to IATA regulations.
Proper Shipping Name: Not subject to IATA regulations.
Technical Name: Not subject to IATA regulations.
Hazard Label(s): Not subject to IATA regulations.

15. REGULATORY INFORMATION

15.1 Classification and labelling in accordance with Industrial Safety and Health Law:

Harmful Substances Prohibited from Manufacturing:

No subject chemicals

Harmful Substances Requiring Permission:

No subject chemicals **Controlled**

Hazardous Substances: No subject

chemicals

15.2 Chemicals controlled in accordance with Toxic Chemicals Control Act:

Toxic Chemicals:

No subject chemicals

Observational Chemicals:

No subject chemicals

Prohibited Chemicals:

No subject chemicals



Restricted Toxic Chemicals:

No subject chemicals

Korean TRI Chemicals:

No subject chemicals

Accident Release Prevention Chemicals:

No subject chemicals

15.3 Hazardous Material Safety Management Act:

Classification: Not applicable for Korea Fire Law.

15.4 Wastes Management Act: Product should be disposed of in accordance with Waste Management Law Article 13.

15.5 Other Local or International Regulations:

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. |
| PICCS: | All ingredients listed or exempt. |
| DSL: | Not determined. |
| HSNO: | Not determined. |

16. OTHER INFORMATION

| | |
|--------------------------------|---|
| Information Source: | Dow Corning Corporation |
| Preparation Department: | Product Safety & Regulatory Compliance Team |
| First Issuing Date: | 2010/08/16 |
| Revision No: | 2 |
| Latest Revision Date: | 2011/03/10 |
| Others: | Not determined. |

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.



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