

ALSTONE SS-995 STRUCTURE SILICONE SEALANT**1. IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY**

1.1 Product Name:	ALSTONE SS-995 STRUCTURE SILICONE SEALANT
1.2 Manufacturer's Product Code:	SS-995
1.3 Chemical Classification:	Silicone elastomer
1.4 Use:	Sealant and adhesive
1.5 Company Details	
Manufacturer/Supplier:	Alstone Silicones Private Limited
Address:	Plot No 420, Village Keshwana, Ricco Road, Kotputli, Jaipur-Rajasthan.
Telephone Number:	+91 (011) - 41232400
Fax Number:	+91 (011) - 41232412
Customer Care Number:	+91 - 8860787878
Contact Person:	Environment, Health and Safety Leader

WHMIS CLASSIFICATION: Class B, Division 3.
Class D, Division 1, Subdivision B.
Class D, Division 2, Subdivision A.
Class E.

Material Usage: Silicone rubber curing agent

2. HAZARDS IDENTIFICATION**EMERGENCY OVERVIEW**

Generic Description: Silicone compound

Physical Form: Viscous Liquid

Colour: Black

Odour: Fishy

n-Propyl alcohol is formed upon contact with water or humid air. Provide adequate ventilation to control exposures within guidelines of OSHA PEL (final rule): TWA 200 ppm, STEL 250 ppm. ACGIH TLV: TWA 100 ppm.

Ethyl alcohol is formed upon contact with water or humid air. Provide adequate ventilation to control exposures within guidelines of OSHA PEL and ACGIH TLV: TWA 1000 ppm.

n-Butyl alcohol is formed on contact with water or humid air. Provide adequate ventilation to control exposures within guidelines of OSHA PEL (final rule): TWA 100 ppm and ACGIH TLV: 20 ppm.

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POTENTIAL HEALTH EFFECTSAcute Effects

Eye: May cause irreversible damage and burns to the eyes.

Skin: Corrosive. Burns skin upon prolonged contact.

ALSTONE SS-995 STRUCTURE SILICONE SEALANT

2. HAZARDS IDENTIFICATION

- Inhalation:** Severely irritating to the respiratory tract. Overexposure by inhalation may cause drowsiness, dizziness, confusion or loss of coordination.
- Oral:** Corrosive. May cause severe and permanent damage to the mouth, throat and stomach. Overexposure by ingestion may cause central nervous system depression which may be characterized by drowsiness, dizziness, confusion, loss of coordination, unconsciousness, and with large quantities even death.
- Prolonged/Repeated Exposure Effects
- Skin:** Overexposure by skin absorption may injure the following organ(s): Kidneys.
- Inhalation :** Overexposure by inhalation may injure the following organ(s): Kidneys. Nervous system. Lungs.
- Oral:** Overexposure by ingestion may injure the following organ(s): Liver. Kidneys.

Signs and Symptoms of Overexposure

No known applicable information.

Medical Conditions Aggravated by Exposure

No known applicable information.

The above listed potential effects of overexposure are based on actual data, results of studies performed upon similar compositions, component data and/or expert review of the product. Please refer to Section 11 for the detailed toxicology information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS Number	Wt %	Component Name
682-01-9	15.0 - 40.0	Tetrapropyl orthosilicate
919-30-2	15.0 - 40.0	Gamma-Aminopropyl triethoxysilane
1333-86-4	15.0 - 40.0	Carbon black
77-58-7	1.0 - 5.0	Dibutyltin dilaurate
64-17-5	0.1 - 1.0	Ethyl alcohol

The ingredients listed above are controlled products as defined in CPR, am. SOR/88-555.

4. FIRST AID MEASURES

- Eye:** Immediately flush with water for 15 minutes. Get medical attention.
- Skin:** Remove from skin and immediately flush with water for 15 minutes. Get medical attention.
- Inhalation:** Remove to fresh air. Get immediate medical attention.

ALSTONE SS-995 STRUCTURE SILICONE SEALANT

Oral: Get immediate medical attention. Do not induce vomiting.
Notes to Physician: Treat according to person's condition and specifics of exposure.

5. FIRE FIGHTING MEASURES

Flash Point: 109.9 °F / 43.3 °C (Pensky-Martens Closed Cup)
Autoignition Temperature: Not available.
Flammability Limits in Air: Not available.
Extinguishing Media: 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.
Fire Fighting Measures: Self-contained breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals. Determine the need to evacuate or isolate the area according to your local emergency plan. Use water spray to keep fire exposed containers cool.
Unusual Fire Hazards: Static electricity will accumulate and may ignite vapors. Prevent a possible fire hazard by bonding and grounding or inert gas purge.

6. ACCIDENTAL RELEASE MEASURES

Containment/Clean up: Remove possible ignition sources. Determine whether to evacuate or isolate the area according to your local emergency plan. Observe all personal protection equipment recommendations described in Sections 5 and 8. For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbant. 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. Local, provincial, federal 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.

7. HANDLING AND STORAGE

Use with adequate ventilation. Product evolves n-propyl alcohol when exposed to water or humid air. Provide ventilation during use to control n-propyl alcohol within exposure guidelines or use respiratory protection. Product evolves flammable ethyl alcohol on exposure to water or humid air. Provide ventilation during use to control ethanol within exposure guidelines or use respiratory protection. Product evolves n-butyl alcohol when exposed to water or humid air. Provide ventilation during use to control n-butyl alcohol within exposure guidelines or use respiratory protection. Do not get in eyes. Do not get on skin. Do not breathe vapor, mist, dust, or fumes. Keep container closed. Do not take internally.

Keep container closed and store away from water or moisture. Static electricity will accumulate and may ignite vapors. Prevent a possible fire hazard by bonding and grounding or inert gas purge. Keep container closed and away from heat, sparks, and flame.

ALSTONE SS-995 STRUCTURE SILICONE SEALANT

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

Consult local authorities for acceptable provincial values.

CAS Number	Component Name	Exposure Limits
919-30-2	Gamma-Aminopropyl triethoxysilane	See ethyl alcohol comments. LC50: > 7.35 mg/L - Inhalation Rat ; 4hr vapor LD50: 1,570 mg/kg - Oral Rat LD50: 4,290 mg/kg - Dermal
77-58-7	Dibutyltin dilaurate	Observe organic tin compounds limits. OSHA PEL and ACGIH TLV-skin: TWA 0.1 mg/m ³ ; ACGIH STEL 0.2 mg/m ³ . See n-butyl alcohol comments. LD50: 175 mg/kg - Oral Rat
64-17-5	Ethyl alcohol	OSHA PEL (final rule) and ACGIH TLV: TWA 1000 ppm. LC50: 124.7 mg/L - Inhalation Rat ; 4hr vapor LD50: 7,060 mg/kg - Oral Rat
682-01-9	Tetrapropyl orthosilicate	See n-propyl alcohol comments.
1333-86-4	Carbon black	OSHA PEL and ACGIH TLV: TWA 3.5 mg/m ³ .

n-Propyl alcohol is formed upon contact with water or humid air. Provide adequate ventilation to control exposures within guidelines of OSHA PEL (final rule): TWA 200 ppm, STEL 250 ppm. ACGIH TLV: TWA 100 ppm.

Ethyl alcohol is formed upon contact with water or humid air. Provide adequate ventilation to control exposures within guidelines of OSHA PEL and ACGIH TLV: TWA 1000 ppm.

n-Butyl alcohol is formed on contact with water or humid air. Provide adequate ventilation to control exposures within guidelines of OSHA PEL (final rule): TWA 100 ppm and ACGIH TLV: 20 ppm.

Engineering Controls

Local Ventilation: Recommended.
General Ventilation: Recommended.

Personal Protective Equipment for Routine Handling

Eyes: Use chemical worker's goggles.

Skin: Wash at mealtime and end of shift. Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc.). Use chemical protective gloves as a minimum and wash skin promptly upon any skin contact.

Suitable Gloves: Avoid skin contact by implementing good industrial hygiene practices and procedures. Select and use gloves and/or protective clothing to further minimize the potential for skin contact. Consult with your glove and/or personnel protective equipment manufacturer for selection of appropriate compatible materials.

ALSTONE SS-995 STRUCTURE SILICONE SEALANT

Inhalation: Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. IH personnel can assist in judging the adequacy of existing engineering controls.

Suitable Respirator: General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits as determined by air sampling or are unknown, appropriate respiratory protection should be worn. Follow CSA Standard Z94.4-93 and use NIOSH/MHSA approved respirators.

Personal Protective Equipment for Spills

Eyes: Use full face respirator.

Skin: Wash at mealtime and end of shift. Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc.). Use chemical protective gloves as a minimum and wash skin promptly upon any skin contact.

Inhalation/Suitable Respirator: Respiratory protection recommended. Follow CSA Standard Z94.4-93 and use NIOSH/MHSA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Precautionary Measures: Do not get in eyes. Do not get on skin. Do not breathe vapor, mist, dust, or fumes. Keep container closed. Do not take internally. Use reasonable care.

Comments: Product evolves n-propyl alcohol when exposed to water or humid air. Provide ventilation during use to control n-propyl alcohol within exposure guidelines or use respiratory protection. Product evolves flammable ethyl alcohol on exposure to water or humid air. Provide ventilation during use to control ethanol within exposure guidelines or use respiratory protection. Product evolves n-butyl alcohol when exposed to water or humid air. Provide ventilation during use to control n-butyl alcohol within exposure guidelines or use respiratory protection.

Note: These precautions are for room temperature handling. Use at elevated temperature or aerosol/spray applications may require added precautions. For further information regarding aerosol inhalation toxicity, please refer to the guidance document regarding the use of silicone-based materials in aerosol applications that has been developed by the silicone industry (www.SEHSC.com) or contact the ALSTONE INDUSTRIES PVT. LTD. customer service group.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Form: Viscous Liquid
Color: Black
Odor: Fishy
Odor Threshold: Not available.
Specific Gravity @ 25°C: 1.36
Viscosity: 225000 cSt
Freezing/Melting Point: Not available.
Boiling Point: > 94 °C
Vapor Pressure @ 25°C: Not available.
Vapor Density: Not available.
Evaporation Rate: Not available.
Solubility in Water: Not available.
Coefficient of Water/Oil: Not available.

ALSTONE SS-995 STRUCTURE SILICONE SEALANT

Distribution:
pH: Not available.
Volatile Content: Not available.

Flash Point: 109.9 °F / 43.3 °C (Pensky-Martens Closed Cup)
Autoignition Temperature: Not available.
Flammability Limits in Air: Not available.

Note: The above information is not intended for use in preparing product specifications. Contact ALSTONE INDUSTRIES PVT. LTD. before writing specifications.

10. STABILITY AND REACTIVITY

Chemical Stability: Stable.

Hazardous Polymerization: Hazardous polymerization will not occur.

Conditions to Avoid: None.

Materials to Avoid: Oxidizing material can cause a reaction. Water, moisture, or humid air can cause hazardous vapors to form as described in Section 8.

Hazardous Decomposition Products

Thermal breakdown of this product during fire or very high heat conditions may evolve the following decomposition products: Carbon oxides and traces of incompletely burned carbon compounds. Silicon dioxide. Formaldehyde. Nitrogen oxides. Metal oxides.

11. TOXICOLOGICAL INFORMATION

Special Hazard Information on Components

Carcinogens

CAS Number	Wt %	Component Name	
1333-86-4	15.0 - 40.0	Carbon black	IARC Group 2B - Possibly Carcinogenic to Humans.

Teratogens

CAS Number	Wt %	Component Name	
77-58-7	1.0 - 5.0	Dibutyltin dilaurate	Evidence of teratogenicity (birth defects) in laboratory animals.
64-17-5	0.1 - 1.0	Ethyl alcohol	Evidence of teratogenicity (birth defects) in humans.

Reproductive Effects

CAS Number	Wt %	Component Name	
77-58-7	1.0 - 5.0	Dibutyltin dilaurate	Evidence of reproductive effects in laboratory animals.

ALSTONE SS-995 STRUCTURE SILICONE SEALANT**12. ECOLOGICAL INFORMATION****Environmental Fate and Distribution**

Complete information is not yet available.

Environmental Effects

Complete information is not yet available.

Fate and Effects in Waste Water Treatment Plants

Complete information is not yet available.

Ecotoxicity Classification Criteria

Hazard Parameters (LC50 or EC50)	High	Medium	Low
Acute Aquatic Toxicity (mg/L)	<=1	>1 and <=100	>100
Acute Terrestrial Toxicity	<=100	>100 and <= 2000	>2000

This table is adapted from "Environmental Toxicology and Risk Assessment", ASTM STP 1179, p.34, 1993.

This table can be used to classify the ecotoxicity of this product when ecotoxicity data is listed above. Please read the other information presented in the section concerning the overall ecological safety of this material.

13. DISPOSAL CONSIDERATIONS

Can be incinerated in accordance with local regulations.

Call local hazardous waste disposal company or provincial waste authorities for more information.

14. TRANSPORT INFORMATION**Canada Road (Based on IMDG Regulations)**

Proper Shipping Name: FLAMMABLE LIQUID, CORROSIVE, N.O.S.

Hazard Technical Name: Tetrapropyl orthosilicate / Gamma-Aminopropyl triethoxysilane

Hazard Class: 3: 8

UN/NA Number: UN 2924

Packing Group: III

Hazard Label(s): flammable liquid
corrosive

Ocean Shipment (IMDG)

Proper Shipping Name: FLAMMABLE LIQUID, CORROSIVE, N.O.S.

Hazard Technical Name: Tetrapropyl orthosilicate / Gamma-Aminopropyl triethoxysilane

Hazard Class: 3: 8

UN/NA Number: UN 2924

ALSTONE SS-995 STRUCTURE SILICONE SEALANT

Packing Group: III

Hazard Label(s): flammable liquid
corrosive**Air Shipment (IATA)**

Proper Shipping Name: Flammable liquid, corrosive, n.o.s.

Hazard Technical Name: Tetrapropyl orthosilicate / Gamma-Aminopropyl triethoxysilane

Hazard Class: 3: 8)

UN/NA Number: UN 2924

Packing Group: III

Hazard Label(s): Flammable Liquid
Corrosive**15. REGULATORY INFORMATION**

This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

WHMIS CLASSIFICATION: Class B, Division 3.
Class D, Division 1, Subdivision B.
Class D, Division 2, Subdivision A.
Class E.

DSL STATUS: All chemical substances in this material are included on or exempted from the DSL.

16. OTHER INFORMATION

Prepared by: ALSTONE INDUSTRIES PVT. LTD.

These data are offered in good faith as typical values and not as product specifications. No warranty, either 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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