FINAL MARINE ADHESIVE

SECTION 1: IDENTIFICATIONS OF THE SUBSTANCE /MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product form : ONE PART POLYURETHANE

Trade name : FINAL MARINE

Type of product : ADHESIVE, POLYURETHANE

Product group : TRADE PRODUCT

1.2. Relevant identified uses of the substance or mixture and uses discouraged

Intended for general public.

1.3. Details of the supplier providing the safety data sheet

Head office: Chasbkaran Sahel Aras Co. 4th Floor, No.2, Mahan Bldg, Mojahedi Alley, Tavanir Blvd, Valiasr, Tabriz, Iran

Phone: +98 (41) 4196

info@csa-team.com www.chasbkaran.com

1.4. Emergency telephone number

In Case Of Emergency : +98 (41) 4196

SECTION 2: HAZARDS IDENTIFICATION

2.1. Label elements

Signal word

Danger

Symbols

Exclamation mark | Health Hazard |

Pictograms

GHS07 GHS08

Hazard Statements

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause an allergic skin reaction.

Harmful if inhaled.

May damage fertility or the unborn child.

May cause cancer.

Precautionary Statements

General:

Keep out of reach of children.

Prevention

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Avoid breathing dust/fume/gas/mist/vapors/spray.

Use only outdoors or in a well-ventilated area.

In case of inadequate ventilation wear respiratory protection.

Wear protective gloves.

Contaminated work clothing must not be allowed out of the workplace.

Response:

If inhaled: Remove person to fresh air and keep comfortable for breathing.

If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

If on skin: Wash with plenty of soap and water.

If skin irritation or rash occurs: Get medical advice/attention.

Wash contaminated clothing before reuse.

If exposed or concerned: Get medical advice/attention.

Disposal:

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

Supplemental Information:

Persons previously sensitized to isocyanates may develop a cross-sensitization reaction to other isocyanates.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	C.A.S. No.	% by Wt
Urethane Polymer	68611-34-7	30 - 60 Trade Secret *
Talc	14807-96-6	15 - 40 Trade Secret *
Titanium Dioxide	13463-67-7	5 - 10 Trade Secret *
Carbitol Acetate	112-15-2	1 - 5 Trade Secret *
Fumed Silica	112945-52-5	0.5 - 5 Trade Secret *
Zinc Oxide	1314-13-2	< 2.5 Trade Secret *
Alkyl Isocyanate Silane	85702-90-5	0.5 - 1.5 Trade Secret *
Heptane	142-82-5	< 1 Trade Secret *
Toluene	108-88-3	< 1 Trade Secret *
Toluene Diisocyanate	26471-62-5	< 1 Trade Secret *

(Gamma-Mercaptopropyl) trimethoxy silane	4420-74-0	< 0.19 Trade Secret *
Hexamethylene Diisocyanato	822-06-0	< 0.015 Trade Secret *

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures:

Inhalation:

Remove person to fresh air. If you feel unwell, get medical attention.

Skin Contact:

Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

Eye Contact:

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

If Swallowed:

Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Allergic respiratory reaction (difficulty breathing, wheezing, cough, and tightness of chest). Allergic skin reaction (redness, swelling, blistering, and itching).

SECTION 5: FIREFIGHTING MEASURES

5.1. Suitable extinguishing media

In case of fire: Use a carbon dioxide or dry chemical extinguisher to extinguish.

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

SECTION 6: HANDLING AND STORAGE

6.1. Precautions for safe handling

Keep out of reach of children. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Use personal protective equipment (gloves, respirators, etc.) as required.

6.2. Conditions for safe storage including any incompatibilities

Keep container tightly closed to prevent contamination with water or air. If contamination is suspected, do not reseal container. Keep cool. Protect from sunlight. Store away from heat. Store away from amines.

SECTION 7: EXPOSURE CONTROLS/PERSONAL PROTECTION

7.1. Control parameters

Occupational exposure limits

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Toluene	108-88-3	ACGIH	TWA:20 ppm	A4: Not class. as human carcin, Ototoxic ant
Toluene	108-88-3	OSHA	TWA:200 ppm; CEIL:300 ppm	
SILICA, AMORPHOUS	112945-52- 5	OSHA	TWA:20 millions of particles/cu. ft.;TWA concentration:0.8 mg/m3	
Zinc Oxide	1314-13-2	ACGIH	TWA (respirable fraction):2 mg/m3; STEL (respirable fraction):10 mg/m3	
Zinc Oxide	1314-13-2	OSHA	TWA (as total dust):15 mg/m3; TWA (respirable fraction):5 mg/m3; TWA (as fume):5 mg/m3	
Titanium Dioxide	13463-67-7	ACGIH	TWA:10 mg/m3	A4: Not class. as human carcin
Titanium Dioxide	13463-67-7	OSHA	TWA (as total dust):15 mg/m3	
Heptane	142-82-5	ACGIH	TWA:400 ppm; STEL:500 ppm	
Heptane	142-82-5	OSHA	TWA:2000 mg/m3(500 ppm)	
Talc	14807-96-6	ACGIH	TWA (respirable fraction):2 mg/m3	A4: Not class. as human carcin
TALC	14807-96-6	OSHA	TWA - Use asbestos limits:	
Talc	14807-96-6	OSHA	TWA concentration(respirable):0.1 mg/m3(2.4 million of particles/cu. ft.); TWA:20 millions of particles/cu. ft.	
Toluene Diisocyanate	26471-62-5	ACGIH	TWA (inhalable fraction and vapor):0.001 ppm;STEL(inhalable fraction and vapor):0.005 ppm	A3: Confirmed animal carcin., Dermal/Respiratory Sensitizer
Hexamethylene Diisocyanato	822-06-0	ACGIH	TWA:0.005 ppm	

ACGIH: American Conference of Governmental Industrial Hygienists.

AIHA: American Industrial Hygiene Association.

CMRG: Chemical Manufacturer's Recommended Guidelines.

OSHA: United States Department of Labor - Occupational Safety and Health Administration.

TWA: Time-Weighted-Average.

STEL: Short Term Exposure Limit.

CEIL: Ceiling.

SECTION 8: PHYSICAL AND CHEMICAL PROPERTIES

8.1. Information on basic physical and chemical properties

Physical state	Solid
Color	Amber Honey
Specific Physical Form	Paste
Odor	Urethane
Density	1.36 g/ml
Specific Gravity	1.36 [Ref Std: WATER=1]
Viscosity	100,000 - 500,000 centipoise
Hazardous Air Pollutants	<=0.2 % weight [Test Method: Calculated]
Percent volatile	2.9 % weight
VOC Less H2O & Exempt Solvents	40 g/l [Test Method: tested per EPA method 24]

SECTION 9: TOXICOLOGICAL INFORMATION

Inhalation:

Harmful if inhaled.

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Allergic Respiratory Reaction: Signs/symptoms may include difficulty breathing, wheezing, cough, and tightness of chest.

Skin Contact:

Contact with the skin during product use is not expected to result in significant irritation. Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eye Contact:

Contact with the eyes during product use is not expected to result in significant irritation.

Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

Ingredient	CAS No.	Class Description	Regulation
Titanium dioxide	13463-67-7	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
Toluene Diisocyanate	26471-62-5	Anticipated human carcinogen	National Toxicology Program Carcinogens
Toluene diisocyanatos	26471-62-5	Grp. 2B: Possible human carc.	International Agency for Research on Cancer

SECTION 10: DISPOSAL CONSIDERATIONS

10.1. Disposal methods

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

Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

SECTION 11: OTHER INFORMATION

NFPA Hazard Classification

Health: 2 Flammability: 1 Instability: 1 Special Hazards: None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

SECTION 12: Ecological information

Ecotoxicological information

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

Chemical fate information

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

SECTION 13: Disposal considerations

13.1. Disposal methods

Dispose of contents/ container in accordance with the local/regional/national/international regulations. Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

SECTION 14: Regulatory information

EPCRA 311/312 Hazard Classifications:

Physical Hazards

Not applicable

Health Hazards
Acute toxicity
Carcinogenicity
Reproductive toxicity
Respiratory or Skin Sensitization

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

Ingredient	C.A.S. No	% by Wt
Zinc Oxide (ZINC COMPOUNDS)	1314-13-2	Trade Secret < 2.5
Carbitol Acetate (GLYCOL ETHERS)	112-15-2	Trade Secret 1 - 5
Toluene Diisocyanate (Benzene, 1,3-diisocyanatomethyl-)	26471-62-5	Trade Secret < 1

This material contains a chemical which requires export notification under TSCA Section 12[b]:

Ingredient (Category if applicable)	C.A.S. No	Regulation	Regulation

Toluene Diisocyanate (Benzene, 1,3-diisocyanatomethyl-)	26471-62-5	Toxic Substances Control Act (TSCA) 5 SNUR or Consent Order Chemicals	Proposed
Toluene Diisocyanate	26471-62-5	Toxic Substances Control Act (TSCA) 5 SNUR or Consent Order Chemicals	Proposed

This material contains a chemical subject to a proposed EPA Significant New Use Rule (TSCA Section 5)

Ingredient (Category if applicable)	C.A.S. No	Reference
Zinc Oxide (ZINC COMPOUNDS)	1314-13-2	Trade Secret < 2.5

SECTION 16: Other information

NFPA Hazard Classification

Health: 2 **Flammability:** 1 **Instability:** 1 **Special Hazards:** None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

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