

SAFETY DATA SHEET

1. Identification

Product identifier Ormet 700 Series (700, 701, 702,)
CAS # Mixture

Manufacturer / Importer / Supplier / Distributor information

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2. Hazard(s) identification

Physical hazards Not applicable.
Health hazards Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 2A
Sensitization, skin Category 1
OSHA hazard(s) Not classified.

Label elements
Hazard symbol



Signal word Warning
Hazard statement Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction.
Toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention

Wear protective gloves and eye/face protection.
Wash thoroughly after handling. Avoid release to the environment.

Response

IF IN EYES: Rinse bare eyes with water for several minutes. If eye irritation persists: Get medical advice/attention. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Collect spillage.

Storage

Store away from incompatible materials.

Disposal

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

3. Composition/information on ingredients

Mixture

Hazardous Components

Chemical name	CAS number	%
Copper	7440-50-8	10-60
Tin	7440-31-5	10-50
Silver	7440-22-4	0-3
Bismuth	7440-69-9	1-20
Triethanolamine	102-71-6	1-5
4,4'-Isopropylidenebisphenol	80-05-7	1-10

Composition comments: All concentrations are in percent by weight.

4. First-aid measures

Inhalation	Low probability due to paste form. Move to fresh air. If breathing is difficult, give oxygen. Get medical attention if any discomfort continues.
Skin contact	Wash skin thoroughly 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. Get medical attention if irritation develops or persists.
Ingestion	Rinse mouth thoroughly. Large quantities: Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Irritation of eyes and mucous membranes. Skin irritation. Dermatitis. May cause redness and pain.
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	Use fire-extinguishing media appropriate for surrounding materials.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	By heating and fire, harmful vapors/gases may be formed.
Special protective equipment and precautions for firefighters	As with any fire, wear self-contained breathing apparatus and full protective clothing.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Avoid inhalation of vapors and contact with skin and eyes. Use Personal Protective Equipment recommended in Section 8.
Methods and materials for containment and cleaning up	Scoop up paste material and deposit in appropriate containers. Clean surface thoroughly to remove residual contamination.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground. Notify local authorities, if required.

7. Handling and storage

Precautions for safe handling	Provide adequate ventilation. Avoid inhalation of vapors. Avoid contact with eyes, skin, and clothing. Use Personal Protective Equipment recommended in section 8 of the MSDS. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Keep containers tightly closed. Keep away from heat, sparks and open flame.

8. Exposure controls/personal protection

Occupational exposure limits US. ACGIH Threshold Limit Values

Components	Type	Value
Copper (CAS 7440-50-8)	TWA	2 mg/m ³
Silver (CAS 7440-22-4)	TWA	0.1 mg/m ³
Tin (CAS 7440-31-5)	TWA	2 mg/m ³
Triethanolamine (CAS 102-71-6)	TWA	5 mg/m ³

Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	Provide adequate ventilation.

Individual protection measures, such as personal protective equipment	
Eye/face protection	Good general ventilation should be sufficient to control airborne levels. A NIOSH approved dust/mist respirator is recommended when TLV levels are

exceeded.

Skin protection	Avoid unnecessary skin contact with this material. Use appropriate chemical protective gloves when handling.
Respiratory protection	Wear respiratory suitable filter.
General hygiene considerations	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.

9. Physical and chemical properties

Appearance	Paste
Physical state	Liquid.
Form	Paste.
Color	Brown.
Odor	Mild.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	> 302 °F (> 150 °C) Closed Cup
Relative density	4.5 (g/cc, 25 °C)
Solubility (water)	Not miscible or difficult to mix
Viscosity	25000 cP (25 °C)

10. Stability and reactivity

Reactivity	The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	Stable at normal conditions
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Excessive heat.
Incompatible materials	Oxidizing agents. Strong acids. Strong bases.
Hazardous decomposition products	Carbon oxides. Metal oxides.

11. Toxicological information

Information on likely routes of exposure

Ingestion	Ingestion may cause irritation and malaise.
Inhalation	In high concentrations, vapors may irritate throat and respiratory system and cause coughing.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.
Symptoms related to the physical, chemical and toxicological characteristics	Irritation of eyes and mucous membranes. Dermatitis. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity	Ingestion may cause irritation and malaise. Heating above the melting point releases metallic oxides which may cause metal fume fever by inhalation. The symptoms are shivering, fever, malaise and muscular pain.
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Components	Species	Test Results
Silver (CAS 7440-22-4)		
<i>Dermal</i> LD50	Rat	> 2000 mg/kg
<i>Oral</i> LD50	Rat	> 5000 mg/kg
Triethanolamine (CAS 102-71-6)		

<i>Dermal</i> LD50	Rabbit	> 20000 mg/kg
<i>Oral</i> LD50	Rabbit	2200 mg/kg

Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Causes serious eye irritation.
Respiratory sensitization	No data available.
Skin sensitization	May cause an allergic skin reaction.
Germ cell mutagenicity	No data available.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
Reproductive toxicity	No data available.
Chronic effects	Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

12. Ecological information

Ecotoxicity	Toxic to aquatic life with long lasting effects.
Persistence and degradability	Not available.
Bioaccumulative potential	Not available.
Mobility in soil	Not available.
Other adverse effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

13. Disposal considerations

Disposal instructions	Dispose in accordance with all applicable regulations. Do not allow this material to drain into sewers/water supplies.
Hazardous waste code	Not regulated.
Waste from residues / unused products	Dispose of in accordance with local regulations.
Contaminated packaging	Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT	Not regulated
IATA	Not regulated
IMDG	Not regulated
Special precautions for user	Read safety instructions, MSDS and emergency procedures before handling.
UN Transport #	EUH401
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable

15. Regulatory information

US federal regulations	No reportable quantities
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16. Other information, including date of preparation or last version

Issue date 01-09-2013

Revision date -

Version # 01

Further information The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

References
ACGIH
EPA: Acquire database
US. IARC Monographs on Occupational Exposures to Chemical Agents
HSDB® - Hazardous Substances Data Bank
IARC Monographs. Overall Evaluation of Carcinogenicity
National Toxicology Program (NTP) Report on Carcinogens
ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices

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.