

GLENDO LLC

SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 PRODUCT IDENTIFIER(S)

Product Name: High-Temp Soldering Platform

Stock Number: 004-691

Recommended use and restrictions

Identified uses: Wear resistant, corrosion resistant, temperature resistant products.

1.2 COMPANY INFORMATION

Distributor's Name: Glendo LLC

Address: 900 Overlander Road, Emporia, KS 66801

Phone: (620) 343-1084

2. HAZARDS IDENTIFICATION

2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

Classification of the substance or mixture: SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
[Respiratory tract irritation] - Category 3

2.2 LABEL ELEMENTS

HAZARD PICTOGRAMS:



Signal word: Warning

Hazard statements: May cause respiratory irritation.

PRECAUTIONARY STATEMENTS

General: Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Prevention: Use only outdoors or in a well-ventilated area. Avoid breathing dust.

Response: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.

Storage: Store locked up.

Disposal: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Other hazards which do not result in classification: None known.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance/mixture: Substance

Other means of identification: AD-85; AD-90; AD-94; AD-96; AD-98; AD-995; AD-995; AD-996; AD-998;
ADR-96; AHP-99; AP-All; FG-995; FG-98

CAS NUMBER/OTHER IDENTIFIERS

CAS number: 1344-28-1

EC number: Not available.

Product code: Not available.

Ingredient Name	%	CAS Number
Aluminum oxide	60 - 100	1344-28-1

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

4. FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

In case of eye contact: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention if irritation occurs.

In case of skin contact: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

If swallowed: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

POTENTIAL ACUTE HEALTH EFFECTS

Eye contact: No known significant effects or critical hazards.

Inhalation: May cause respiratory irritation.

Skin contact: No known significant effects or critical hazards.

Ingestion: No known significant effects or critical hazards.

OVER-EXPOSURE SIGNS/SYMPTOMS

Eye contact: No known significant effects or critical hazards.

Inhalation: Adverse symptoms may include the following: respiratory tract irritation, coughing

Skin contact: No known significant effects or critical hazards.

Ingestion: No known significant effects or critical hazards.

4. FIRST AID MEASURES (continued)

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments: No specific treatment.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. See toxicological information (Section 11).

5. FIREFIGHTING MEASURES

5.1 EXTINGUISHING MEDIA

Suitable extinguishing media: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media: None known.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Specific hazards arising from the chemical: No specific fire or explosion hazard.

Hazardous thermal decomposition products: Decomposition products may include the following materials: metal oxide/oxides

5.3 ADVICE FOR FIREFIGHTERS

Special protective actions for firefighters: No special protection is required.

Special protective equipment for firefighters: Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

For non-emergency personnel: No special measures are required

For emergency responders: No special measures are required.

6.2 ENVIRONMENTAL PRECAUTIONS

No special measures are required.

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

Spill: Place in a designated, labeled waste container taking into consideration any contamination that may be on the filter as a result of use.

7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Store in a cool, clean environment. Handle and open container with care. See Section 10 for further details.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

Occupational exposure limits

Ingredient name	Exposure limits
Aluminum oxide	<p>NIOSH REL (United States, 6/2009). TWA: 5 mg/m³, (as Al) 10 hours. Form: Pyro powders and welding fumes</p> <p>OSHA PEL (United States, 6/2010). TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust</p> <p>ACGIH TLV (United States). TWA: 1 mg/m³, (Al) 8 hours. Form: Respirable fraction</p>

Recommended monitoring procedures: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

8.2 EXPOSURE CONTROLS

Appropriate engineering controls: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

INDIVIDUAL PROTECTION MEASURES

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: safety glasses with side-shields.

SKIN PROTECTION

Hand protection: Protective gloves.

Body protection: Lab coat or equivalent.

Other skin protection: Suitable protective footwear.

Respiratory protection: A respirator is not needed under normal and intended conditions of product use.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

General Information

Appearance

Physical state: Solid.

Color: White.

Odor: None.

Odor threshold: Not available.

pH: Not available.

Change in condition

Melting point/freezing point: >1700°C (>3092°F)

9. PHYSICAL AND CHEMICAL PROPERTIES (continued)

Boiling point/boiling range: >2200°C (>3992°F)

Flash point: Not available.

Evaporation rate: Not available.

Flammability (solid, gas): Not available.

Lower and upper explosive (flammable) limits: Not available.

Vapor pressure: Not available.

Vapor density: Not available.

Relative density: 3.7

Solubility: Negligible solubility in water.

Partition coefficient: noctanol/water: Not available.

Auto/Self-ignition temperature: Not available.

Decomposition temperature: Not available.

SADT: Not available.

Viscosity: Not available.

10. STABILITY AND REACTIVITY

10.1 REACTIVITY

No specific test data related to reactivity available for this product or its ingredients.

10.2 CHEMICAL STABILITY

The product is stable.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 CONDITIONS TO AVOID

No specific data.

10.5 INCOMPATIBLE MATERIALS

Not available.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

Acute toxicity: There is no data available.

Irritation/Corrosion

Skin: There is no data available.

Eyes: There is no data available.

Respiratory: There is no data available.

Sensitization

Skin: There is no data available.

Respiratory: There is no data available.

Mutagenicity There is no data available.

11. TOXICOLOGICAL INFORMATION (continued)

Carcinogenicity

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Aluminum oxide	A4	-	-	-	-	-

Reproductive toxicity: There is no data available.

Teratogenicity: There is no data available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Aluminum oxide	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure): There is no data available.

Aspiration hazard: There is no data available.

Information on the likely routes of exposure: Not available.

Potential acute health effects

Eye contact: No known significant effects or critical hazards.

Inhalation: May cause respiratory irritation.

Skin contact: No known significant effects or critical hazards.

Ingestion: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact: No known significant effects or critical hazards.

Inhalation: Adverse symptoms may include the following: respiratory tract irritation, coughing

Skin contact: No known significant effects or critical hazards.

Ingestion: No known significant effects or critical hazards.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects: No known significant effects or critical hazards.

Potential delayed effects: No known significant effects or critical hazards.

Long term exposure: No known significant effects or critical hazards.

Potential immediate effects: No known significant effects or critical hazards.

Potential delayed effects: No known significant effects or critical hazards.

Potential chronic health effects

General: No known significant effects or critical hazards.

Carcinogenicity: No known significant effects or critical hazards.

Mutagenicity: No known significant effects or critical hazards.

Teratogenicity: No known significant effects or critical hazards.

Developmental effects: No known significant effects or critical hazards.

Fertility effects: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

There is no data available.

12. ECOLOGICAL INFORMATION

12.1 TOXICITY

There is no data available.

12.2 PERSISTENCE AND DEGRADABILITY

There is no data available.

12.3 BIOACCUMULATIVE POTENTIAL

There is no data available.

12.4 MOBILITY IN SOIL

Soil/water partition coefficient (KOC): There is no data available.

Other adverse effects: No known significant effects or critical hazards.

13. DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Disposal methods: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. TRANSPORT INFORMATION

	DOT	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	
Environmental hazards	No.	No.	No.
Special precautions for user	-	-	-
Additional information	-	-	-

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not available.

15. REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE PRODUCT

No known specific national and/or regional regulations applicable to this product (including its ingredients).

U.S. Federal regulations

TSCA 8(a) IUR Exempt/Partial exemption: Not determined

United States inventory (TSCA 8b): All components are listed or exempted.

SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/304/311/312 hazardous chemicals: Aluminum oxide

SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Aluminum oxide: Immediate (acute) health hazard

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs): Not listed

15. **REGULATORY INFORMATION (continued)**

Clean Air Act Section 602 Class I Substances: Not listed

Clean Air Act Section 602 Class II Substances: Not listed

DEA List I Chemicals (Precursor Chemicals): Not listed

DEA List II Chemicals (Essential Chemicals): Not listed

SARA 313

	Product name	CAS number	Concentration
Form R - Reporting requirements	Aluminum oxide	1344-28-1	60 - 100
Supplier notification	Aluminum oxide	1344-28-1	60 - 100

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

STATE REGULATIONS

Massachusetts: The following components are listed: Aluminum oxide

New York: None of the components are listed.

New Jersey: The following components are listed: Aluminum oxide

Pennsylvania: The following components are listed: Aluminum oxide

California Prop. 65: No products were found.

16. **OTHER INFORMATION**

User is granted the ability to make unlimited paper copies for internal use only. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. GLENDO, LLC. shall not be held liable for any damage resulting from handling or from contact with the above product.

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