### 1. IDENTIFICATION

**Product identifier**
- **Product Name**: STEEL WELD 2 OZ.

**Other means of identification**
- **Product Code**: 84332
- **Synonyms**: None

**Recommended use of the chemical and restrictions on use**
- **Recommended Use**: Sealant
- **Uses advised against**: No information available

**Details of the supplier of the safety data sheet**

<table>
<thead>
<tr>
<th>Manufacturer Address</th>
<th>Distributor</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITW Permatex</td>
<td>ITW Permatex Canada</td>
</tr>
<tr>
<td>10 Columbus Blvd.</td>
<td>35 Brownridge Road, Unit 1</td>
</tr>
<tr>
<td>Hartford, CT 06106 USA</td>
<td>Halton Hills, ON Canada L7G 0C6</td>
</tr>
<tr>
<td>Telephone: (800) 924-6994</td>
<td></td>
</tr>
</tbody>
</table>

| Company Phone Number | 1-87-Permatex | (877) 376-2839 |
| 24 Hour Emergency Phone Number | Chem-Tel: 800-255-3924 | International Emergency: 00+1 813-248-0585 |
| Contract Number | MIS0003453 |

**E-mail address**
- mail@permatex.com

### 2. HAZARDS IDENTIFICATION

**Classification**

**OSHA Regulatory Status**
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin corrosion/irritation</td>
<td>2</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>2</td>
</tr>
<tr>
<td>Skin sensitization</td>
<td>1</td>
</tr>
</tbody>
</table>

**Label elements**

**Emergency Overview**

**Warning**
- Causes skin irritation
- Causes serious eye irritation
- May cause an allergic skin reaction
Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing should not be allowed out of the workplace
Wear eye/face protection

Precautionary Statements - Response
Specific treatment (see supplemental first aid instructions on this label)
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
IF ON SKIN: Wash with plenty of soap and water
Take off contaminated clothing and wash before reuse
If skin irritation or rash occurs: Get medical advice/attention

Precautionary Statements - Storage
Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
Not applicable

Other Information
Harmful to aquatic life with long lasting effects. Carcinogenic effects.: Does not apply. No. Respirable dust.

Unknown acute toxicity 67.5% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Weight-%</th>
<th>Trade Secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAGNESIUM SILICATE</td>
<td>14807-96-6</td>
<td>30 - 60</td>
<td>*</td>
</tr>
<tr>
<td>BISPHENOL A/EPICHLOROHYDRIN BASED EPOXY RESIN</td>
<td>25068-38-6</td>
<td>10 - 30</td>
<td>*</td>
</tr>
<tr>
<td>GLASS OXIDE</td>
<td>65997-17-3</td>
<td>10 - 30</td>
<td>*</td>
</tr>
<tr>
<td>FERROSILICON</td>
<td>8049-17-0</td>
<td>10 - 30</td>
<td>*</td>
</tr>
<tr>
<td>NEPHELINE SYENITE</td>
<td>37244-96-5</td>
<td>1 - 5</td>
<td>*</td>
</tr>
<tr>
<td>SILICA, QUARTZ</td>
<td>14808-60-7</td>
<td>0.1 - 1</td>
<td>*</td>
</tr>
</tbody>
</table>

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

General advice Get medical advice/attention if you feel unwell.
Eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin contact

Call a physician immediately. Wash with soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician.

Ingestion

IF SWALLOWED: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician.

Self-protection of the first aider

Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

Most important symptoms and effects, both acute and delayed

Symptoms

See section 2 for more information.

Indication of any immediate medical attention and special treatment needed

Note to physicians

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Carbon dioxide (CO2), Dry chemical, Foam

Unsuitable extinguishing media

None.

Specific hazards arising from the chemical

None in particular.

Explosion data

Sensitivity to Mechanical Impact

None.

Sensitivity to Static Discharge

None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions

Ensure adequate ventilation, especially in confined areas. Avoid contact with eyes and skin. Use personal protective equipment as required.

Environmental precautions

Environmental precautions

Do not flush into surface water or sanitary sewer system. See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment

Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Ensure adequate ventilation. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

Prevention of secondary hazards

Clean contaminated objects and areas thoroughly observing environmental regulations.
7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling
Handle in accordance with good industrial hygiene and safety practice. Avoid breathing vapors or mists. Avoid contact with skin, eyes or clothing. Wash thoroughly after handling. Wash contaminated clothing before reuse. Use personal protective equipment as required.

Conditions for safe storage, including any incompatibilities

Storage Conditions
Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible materials
Strong oxidizing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAGNESIUM SILICATE 14807-96-6</td>
<td>TWA: 2 mg/m³ particulate matter containing no asbestos and &lt;1% crystalline silica, respirable fraction</td>
<td>(vacated) TWA: 2 mg/m³ respirable dust &lt;1% Crystalline silica, containing no Asbestos TWA: 20 mppcf if 1% Quartz or more, use Quartz limit</td>
<td>IDLH: 1000 mg/m³ TWA: 2 mg/m³ containing no Asbestos and &lt;1% Quartz respirable dust</td>
</tr>
<tr>
<td>GLASS OXIDE 65997-17-3</td>
<td>TWA: 1 fiber/cm³ respirable fibers: length &gt;5 µm, aspect ratio &gt;=3:1, as determined by the membrane filter method at 400-450X magnification [4-mm objective], using phase-contrast illumination TWA: 5 mg/m³ inhalable fraction</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>SILICA, QUARTZ 14808-60-7</td>
<td>TWA: 0.025 mg/m³ respirable fraction</td>
<td>(vacated) TWA: 0.1 mg/m³ respirable dust: (30)/(%SiO2 + 2) mg/m³ TWA total dust: (250)/(%SiO2 + 5) mppcf TWA respirable fraction: (10)/(%SiO2 + 2) mg/m³ TWA respirable fraction</td>
<td>IDLH: 50 mg/m³ respirable dust TWA: 0.05 mg/m³ respirable dust</td>
</tr>
</tbody>
</table>

NIOSH IDLH Immediately Dangerous to Life or Health

Other Information
Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls
Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection
Wear safety glasses with side shields (or goggles).

Skin and body protection
Wear protective gloves and protective clothing.

Respiratory protection
Use NIOSH-approved air-purifying respirator with organic vapor cartridge or canister, as appropriate.

General Hygiene Considerations
Handle in accordance with good industrial hygiene and safety practice. Regular cleaning of equipment, work area and clothing is recommended.
9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state  Solid
Appearance  Gray
Odor  Pungent sulfur
Odor threshold  No information available

**Property**  **Values**  **Remarks • Method**
pH  No information available
Melting point / freezing point  No information available
Boiling point / boiling range  Not Applicable
Flash point  > 93 °C / > 200 °F  Setaflash Closed Cup
Evaporation rate  No information available
Flammability (solid, gas)  No information available
Flammability Limit in Air
  Upper flammability limit:  No information available
  Lower flammability limit:  No information available
Vapor pressure  No information available
Vapor density  No information available
Relative density  2.25
Water solubility  No information available
Solubility in other solvents  No information available
Partition coefficient  No information available
Autoignition temperature  No information available
Decomposition temperature  >200°C (>392°F)
Kinematic viscosity  No information available
Dynamic viscosity  No information available
Explosive properties  No information available
Oxidizing properties  No information available

Other Information

Softening point  No information available
Molecular weight  No information available
VOC Content (%)  0
Density  No information available
Bulk density  No information available

10. STABILITY AND REACTIVITY

Reactivity
No data available

Chemical stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Conditions to avoid
Excessive heat.

Incompatible materials
Strong oxidizing agents

Hazardous Decomposition Products
Carbon oxides
Oxides of sulfur
Metal oxides
11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation
May cause irritation of respiratory tract.

Eye contact
Contact with eyes may cause irritation. May cause redness and tearing of the eyes.

Skin contact
May cause skin irritation and/or dermatitis. May cause sensitization by skin contact.

Ingestion
Ingestion may cause irritation to mucous membranes.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>BISPHENOL A/EPICHLOORHYDRIN BASED EPOXY RESIN 25068-38-6</td>
<td>= 11400 mg/kg (Rat)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>FERROSILICON 8049-17-0</td>
<td>-</td>
<td>&gt; 20 g/kg (Rabbit)</td>
<td>-</td>
</tr>
<tr>
<td>SILICA, QUARTZ 14808-60-7</td>
<td>= 500 mg/kg (Rat)</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Information on toxicological effects

Symptoms
No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization
No information available.

Germ cell mutagenicity
No information available.

Carcinogenicity
The table below indicates whether each agency has listed any ingredient as a carcinogen.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAGNESIUM SILICATE</td>
<td></td>
<td>Group 3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>14807-96-6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GLASS OXIDE</td>
<td></td>
<td>Group 3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>65997-17-3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SILICA, QUARTZ</td>
<td></td>
<td>A2</td>
<td>Group 1</td>
<td>Known</td>
</tr>
<tr>
<td>14808-60-7</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

ACGIH (American Conference of Governmental Industrial Hygienists)
A2 - Suspected Human Carcinogen

IARC (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans
Not classifiable as a human carcinogen

NTP (National Toxicology Program)
Known - Known Carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Target Organ Effects
Central Vascular System (CVS), Eyes, Respiratory system.

The following values are calculated based on chapter 3.1 of the GHS document:

ATEmix (oral) 18525 mg/kg
ATEmix (dermal) 32532 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

43% of the mixture consists of components(s) of unknown hazards to the aquatic environment

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAGNESIUM SILICATE</td>
<td>14807-96-6</td>
<td>100: 96 h Brachydanio rerio g/L LC50 semi-static</td>
<td>-</td>
</tr>
</tbody>
</table>
Persistence and degradability
No information available.

Bioaccumulation
No information available.

Mobility
No information available.

Other adverse effects
No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes
Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging
Do not reuse container.

US EPA Waste Number
Not applicable

14. TRANSPORT INFORMATION

DOT
Proper shipping name: Not regulated

IATA
Proper shipping name: Not regulated

IMDG
Proper shipping name: Not regulated

15. REGULATORY INFORMATION

International Inventories
TSCA Complies
DSL/NDSL Complies
EINECS/ELINCS Not determined
ENCS Not determined
IECSC Not determined
KECL Not determined
PICCS Not determined
AICS Not determined

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances
SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

<table>
<thead>
<tr>
<th>Acute health hazard</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic Health Hazard</td>
<td>No</td>
</tr>
<tr>
<td>Fire hazard</td>
<td>No</td>
</tr>
<tr>
<td>Sudden release of pressure hazard</td>
<td>No</td>
</tr>
<tr>
<td>Reactive Hazard</td>
<td>No</td>
</tr>
</tbody>
</table>

CWA (Clean Water Act)
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations

California Proposition 65
This product contains the following Proposition 65 chemicals:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>California Proposition 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>SILICA, QUARTZ - 14808-60-7</td>
<td>Carcinogen</td>
</tr>
</tbody>
</table>

U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAGNESIUM SILICATE 14807-96-6</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>FERROSILICON 8049-17-0</td>
<td>X</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>SILICA, QUARTZ 14808-60-7</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

U.S. EPA Label Information

| EPA Pesticide Registration Number | Not applicable |

NFPA Health hazards 2 Flammability 1 Instability 0 -
HMIS Health hazards 2 Flammability 1 Physical hazards 0 Personal protection B

NFPA (National Fire Protection Association)
HMIS (Hazardous Material Information System)

Revision Date 05-May-2015

Disclaimer
The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet