Section 1 - Identification of The Material and Supplier

SolderWeld, Inc.
125 E Chandlerpoint Way
Draper, UT 84020

Phone: 1-800-356-8449 (office hours)
Fax: 801-930-9262

Chemical nature: Water solution of ingredients.
Trade Name: HotBlock
Product Use: Welding Aid - Heat Sink Compound.
Creation Date: May, 2016
This version issued: May, 2016 and is valid for 5 years from this date.
Poison Information Center: Phone 1-800-222-1222 from anywhere in the U.S.

Section 2 - Hazards Identification

Statement of Hazardous Nature
This product is classified as: Not classified as hazardous according to the criteria of SWA.

CLP/GHS Classification (1272/2008):
Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

EU Classification (67/548/EEC):
This substance is not classified as dangerous according to Directive 67/548/EEC.

Not a hazardous substance or mixture per 29CFR 1910.1200 (Rev. July 1, 2012)

UN Number: None allocated

GHS Signal word: NONE. Not hazardous.

PREVENTION
P102: Keep out of reach of children.
P262: Do not get in eyes, on skin, or on clothing.
P281: Use personal protective equipment as required.

RESPONSE
P353: Rinse skin or shower with water.
P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P370+P378: Not combustible. Use extinguishing media suited to burning materials.

STORAGE
P404: Store in a closed container.

DISPOSAL
P501: If they can not be recycled, dispose of contents to an approved waste disposal plant and containers to landfill (see Section 13 of this SDS).

Emergency Overview

Physical Description & Colour: Damp blue fibrous compound.
Odour: No odour.
Major Health Hazards: No significant risk factors have been found for this product.

Section 3 - Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS No</th>
<th>Conc,%</th>
<th>TWA (mg/m³)</th>
<th>STEL (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cellulose</td>
<td>9004-34-6</td>
<td>5-15</td>
<td>10</td>
<td>not set</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>7647-14-5</td>
<td>10-30</td>
<td>not set</td>
<td>not set</td>
</tr>
<tr>
<td>Mica</td>
<td>12001-26-2</td>
<td>10-30</td>
<td>2.5 (inspirable)</td>
<td>not set</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>to 100</td>
<td>not set</td>
<td>not set</td>
</tr>
</tbody>
</table>
This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non-hazardous ingredients are also possible.

The SWA TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equaled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak" is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

Section 4 - First Aid Measures

General Information:
You should call The Poison Information Center if you feel that you may have been poisoned, burned or irritated by this product. The number is 1-800-222-1222 from anywhere in the U.S. and is available at all times. Have this SDS with you when you call.

Inhalation: First aid is not generally required. If in doubt, contact a Poison Information Center or a doctor.

Skin Contact: Wash gently and thoroughly with water (use non-abrasive soap if necessary) for 5 minutes or until product is removed.

Eye Contact: Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes or until the product is removed, while holding the eyelid(s) open. Obtain medical advice immediately if irritation occurs. Take special care if exposed person is wearing contact lenses.

Ingestion: If product is swallowed or gets in mouth, do NOT induce vomiting; wash mouth with water and give some water to drink. If symptoms develop, or if in doubt contact a Poison Information Center or a doctor.

Section 5 - Fire Fighting Measures

Fire and Explosion Hazards: The major hazard in fires is usually inhalation of heated and toxic or oxygen deficient (or both), fire gases. There is no risk of an explosion from this product under normal circumstances if it is involved in a fire. Only small quantities of decomposition products are expected from this product at temperatures normally achieved in a fire. This will only occur after heating to dryness. Fire decomposition products from this product are likely to be irritating if inhaled.

Extinguishing Media: Not combustible. Use extinguishing media suited to burning materials.

Fire Fighting: If a significant quantity of this product is involved in a fire, call the fire department.

Flash point: Does not burn.

Upper Flammability Limit: Does not burn.

Lower Flammability Limit: Does not burn.

Autoignition temperature: Not applicable - does not burn.

Flammability Class: Does not burn.

Cellulose is a polysaccharide and therefore its oxygen content is higher than that of polyurethane or of polystyrene. The cellulose polymer begins to decompose at 482°F (250°C). The initial products include various glucose and furan products with further formation of acrolein and other respiratory irritants. Acrolein is very toxic to lungs. The furans are also toxic, and a model furan derivative, furyl alcohol, shows dose-dependent neurotoxicity in an inhalation exposure model. There are no data on the roles of toxicity of furan derivatives in the fire victims.

Section 6 - Accidental Release Measures

Accidental release: Minor spills do not normally need any special cleanup measures. In the event of a major spill, prevent spillage from entering drains or water courses. As a minimum, wear overalls, goggles and gloves. Suitable materials for protective clothing include rubber, PVC. Eye/face protective equipment should comprise as a minimum, protective glasses and, preferably, goggles. If there is a significant chance that vapors or mists are likely to build up in the cleanup area, we recommend that you use a respirator. Usually, no respirator is necessary when using this product. However, if you have any doubts consult the U.S. Standard mentioned below (section 8).

Stop leak if safe to do so, and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Recycle containers wherever possible after careful cleaning. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. This material may be suitable for approved landfill. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.
Section 7 - Handling and Storage

Handling: Keep exposure to this product to a minimum, and minimize the quantities kept in work areas. Check Section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimize risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

Storage: Make sure that containers of this product are kept tightly closed. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. Some liquid preparations settle or separate on standing and may require stirring before use. Check packaging - there may be further storage instructions on the label.

Section 8 - Exposure Controls and Personal Protection

The following U.S. Standard will provide general advice regarding safety clothing and equipment:

Respiratory equipment: Use an air purifying dust respirator when welding or brazing in a confined space, or when local exhaust or ventilation is not sufficient to keep exposure values within safe limits.

Protective Gloves: Wear appropriate gloves to prevent skin contact.

EN 12477: Protection gloves for welders
Type B gloves are recommended when high dexterity is required as for TIG welding, while type A gloves are recommended for other welding processes. The contact temp (°C) is 100 and the threshold time (seconds) >15.

WA Exposure Limits | TWA (mg/m³) | STEL (mg/m³)
--- | --- | ---
Cellulose | 10 | not set
Mica | 2.5 (inspirable) | not set

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

Ventilation: This product should only be used in a well ventilated area. If natural ventilation is inadequate, use of a fan is suggested.

Eye Protection: Eye protection such as protective glasses or goggles is recommended when this product is being used.

Skin Protection: You should avoid contact even with mild skin irritants. Therefore you should wear suitable impervious elbow-length gloves and facial protection when handling this product. See below for suitable material types.

Protective Material Types: We suggest that protective clothing be made from the following materials: rubber, PVC.

Respirator: Usually, no respirator is necessary when using this product. However, if you have any doubts consult the U.S. Standard mentioned above.

Safety deluge showers should, if practical, be provided near to where this product is being handled commercially.

Section 9 - Physical and Chemical Properties:

Physical Description & color: Damp blue fibrous compound.
Odor: No odor.
Boiling Point: About 100°C at 100kPa
Freezing/Melting Point: No specific data.
Volatile: Water component.
Vapor Pressure: 2.37 kPa at 20°C (water vapor pressure).
Vapor Density: No data.
Specific Gravity: No data.
Water Solubility: No data.
PH: No data.
Volatility: No data.
Odor Threshold: No data.
Evaporation Rate: No data.
Coeff. Oil/water Distribution: No data.
Autoignition temp: Not applicable - does not burn.

Section 10 - Stability and Reactivity

Reactivity: This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

Conditions to Avoid: Keep containers tightly closed.

Incompatibilities: No particular Incompatibilities.

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Poison Information Center: 800-222-1222 from anywhere in the U.S.
Fire Decomposition: Only small quantities of decomposition products are expected from this product at temperatures normally achieved in a fire. This will only occur after heating to dryness. Combustion forms carbon dioxide, and if incomplete, carbon monoxide and possibly smoke. Water is also formed. Sodium compounds. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death. Polymerization: This product will not undergo polymerization reactions.

Section 11 - Toxicological Information

Local Effects:
Target Organs: There is no data to hand indicating any particular target organs.

Classification of Hazardous Ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Risk Phrases</th>
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</table>

No ingredient mentioned in the HSIS Database is present in this product at hazardous concentrations.

Potential Health Effects

Inhalation:
Short Term Exposure: Available data indicates that this product is not harmful. In addition product is unlikely to cause any discomfort or irritation.
Long Term Exposure: No data for health effects associated with long term inhalation.

Skin Contact:
Short Term Exposure: Available data indicates that this product is not harmful. It should present no hazards in normal use. However product may be irritating, but is unlikely to cause anything more than mild transient discomfort.
Long Term Exposure: No data for health effects associated with long term skin exposure.

Eye Contact:
Short Term Exposure: This product is believed to be mildly irritating, to eyes, but is unlikely to cause anything more than mild transient discomfort.
Long Term Exposure: No data for health effects associated with long term eye exposure.

Ingestion:
Short Term Exposure: Significant oral exposure is considered to be unlikely. However, this product is believed to be mildly irritating to mucous membranes but is unlikely to cause anything more than mild transient discomfort.
Long Term Exposure: No data for health effects associated with long term ingestion.

Carcinogen Status:
SWA: No significant ingredient is classified as carcinogenic by SWA.
NTP: No significant ingredient is classified as carcinogenic by NTP.
IARC: No significant ingredient is classified as carcinogenic by IARC.

Section 12 - Ecological Information

Insufficient data to be sure of status. Expected to not be an environmental hazard.

Section 13 - Disposal Considerations

Disposal: Containers should be emptied as completely as practical before disposal. If possible, recycle product and containers either in-house or send to recycle company. If this is not practical, send to a commercial waste disposal site.

Section 14 - Transport Information

UN Number: This product is not classified as a Dangerous Good by ADG, IATA or IMDG/IMSBC criteria. No special transport conditions are necessary unless required by other regulations.

Section 15 - Regulatory Information

AICS: All of the significant ingredients in this formulation are compliant with NICNAS regulations.

Section 16 - Other Information

This SDS contains only safety-related information. For other data see product literature.

Acronyms:

- CAS number: Chemical Abstracts Service Registry Number
- Hazchem Code: Emergency action code of numbers and letters that provide information to emergency services especially firefighters
- IARC: International Agency for Research on Cancer
SAFETY DATA SHEET
Issued by: SolderWeld, Inc. Phone: 1-800-356-8449 (office hours)
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Please read all labels carefully before using product.

The information in this document is believed to be correct as of the date issued. However, no warranty is expressed to be implied regarding the accuracy or completeness of this information. This information and product are furnished on the condition that the person receiving them shall make his own determinations as to the suitability of the product for his particular purpose and on the condition that he assumes the risk of his use thereof.

This Material Safety Data Sheet complies with the EC directives 91/155/EEC and 93/112/EEC, including modifications 2001/58/EC.