SAFETY DATA SHEET

This Safety Data Sheet (SDS) is for welding consumables and related products and may be used to comply with OSHA’s Hazard Communication standard, 29 CFR 1910.1200, and Superfund Amendments and Reauthorization Act (SARA) of 1986 Public Law 99-499 and Canadian Workplace Hazardous Materials Information System (WHMIS) per Health Canada administrative policy. The OSHA standard must be consulted for specific requirements. This Safety Data Sheet complies with ISO 11014-1 and ANSI Z400.1. This document is translated in several languages and is available on our website at www.hobartbrothers.com, from your sales representative or by calling customer service at 1 (937) 332-4000.

SECTION 1 – IDENTIFICATION

Manufacturer/Supplier

<table>
<thead>
<tr>
<th>Name:</th>
<th>HOBART BROTHERS LLC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telephone No:</td>
<td>+1 (937) 332-4000</td>
</tr>
<tr>
<td>Address:</td>
<td>101 TRADE SQUARE EAST, TROY, OH 45373</td>
</tr>
<tr>
<td>Emergency No:</td>
<td>+1 (800) 424-9300</td>
</tr>
<tr>
<td>Canadian Address:</td>
<td>2570 NORTH TALBOT ROAD, OLDCASTLE, ONTARIO, CANADA N0R1L0</td>
</tr>
<tr>
<td>Canada:</td>
<td>+1 (519) 737-3053</td>
</tr>
<tr>
<td>Website:</td>
<td><a href="http://www.hobartbrothers.com">www.hobartbrothers.com</a></td>
</tr>
</tbody>
</table>

Products Type: FLUX FOR SUBMERGED ARC WELDING

GROUP A: Trade Name: ---

GROUP B: Trade Name: HF-N

GROUP C: Trade Name: HA-495, HN-511, HN-590

GROUP D: Trade Name: PF 201

AWS Specification: None

Recommended Use: FLUX FOR SUBMERGED ARC WELDING

Restrictions on Use: Use only as indicated for welding operations

SECTION 2 – HAZARDS IDENTIFICATION

Group A

HAZARD CLASSIFICATION – This product as described in Section 1 is classified as hazardous according to applicable GHS hazard classification criteria as required and defined in OSHA Hazard Communication Standard (29 CFR Part 1910.1200).

- Acute Toxicity - Oral Category 4
- Acute Toxicity - Inhalation Category 4
- Specific Target Organ Toxicity (Repeated Exposure) Category 2
- Carcinogenicity Category 2

LABEL ELEMENTS

Hazard Pictograms:

Signal Word – WARNING

Hazard Statements:

H302: Harmful if swallowed
H332: Harmful if inhaled
H351: Suspected of causing cancer through inhalation
H373: May cause damage to organs through prolonged or repeated exposure through inhalation

Precautionary Statements:

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P260: Do not breathe dusts/fumes/gases/mists/vapours/sprays.
P264: Wash affected areas thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P271: Use only outdoors or in a well-ventilated area.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P312: IF SWALLOWED: Call a POISON CENTER
P303 + P361: IN CASE OF CONTACT WITH EYES: Rinse immediately with plenty of water and seek medical advice/attention.
P331: Do not eat, drink or smoke.
P304 + P340 + P310 + P311: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312: Call a POISON CENTER if you feel unwell.
P308 + P330: If exposed or suspected to be exposed: Get medical advice/attention.
P314: Get medical advice/attention if you feel unwell.
P405: Store locked up.
P501: Dispose of contents and container in accordance with local and national regulations.

Group B

HAZARD CLASSIFICATION – This product as described in Section 1 is classified as hazardous according to applicable GHS hazard classification criteria as required and defined in OSHA Hazard Communication Standard (29 CFR Part 1910.1200).

- Acute Toxicity - Oral Category 4
- Acute Toxicity - Inhalation Category 4
- Specific Target Organ Toxicity (Repeated Exposure) Category 2
- Carcinogenicity Category 2

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LABEL ELEMENTS
Hazard Pictograms:

Signal Word – WARNING
Hazard Statements:
H302: Harmful if swallowed
H332: Harmful if inhaled
H351: Suspected of causing cancer through inhalation
H373: May cause damage to organs through prolonged or repeated exposure through inhalation
Precautionary Statements:
P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P264: Wash affected areas thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P271: Use only outdoors or in a well-ventilated area.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P312: IF SWALLOWED: Call a POISON CENTER
P330: Rinse mouth
P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312: Call a POISON CENTER if you feel unwell.
P308 + P313: If exposed or concerned: Get medical advice/attention.
P314: Get medical advice/attention if you feel unwell.
P405: Store locked up.
P501: Dispose of contents and container in accordance with local and national regulations.

GROUP C:
CLASSIFICATION OF SUBSTANCE OR MIXTURE – These products as described in Section 1 are classified as hazardous according to applicable GHS hazard classification criteria as required and defined in OSHA Hazard Communication Standard (29 CFR Part 1910.1200).
• Acute Toxicity - Oral Category 4
• Acute Toxicity - Inhalation Category 4
• Specific Target Organ Toxicity (Repeated Exposure) Category 2
• Carcinogenicity Category 2

LABEL ELEMENTS
Hazard Pictograms:

Signal Word – WARNING
Hazard Statements:
H302: Harmful if swallowed
H332: Harmful if inhaled
H351: Suspected of causing cancer through inhalation
H373: May cause damage to organs through prolonged or repeated exposure through inhalation
Precautionary Statements:
P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P264: Wash affected areas thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P271: Use only outdoors or in a well-ventilated area.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P312: IF SWALLOWED: Call a POISON CENTER
P330: Rinse mouth
P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312: Call a POISON CENTER if you feel unwell.
P308 + P313: If exposed or concerned: Get medical advice/attention.
P314: Get medical advice/attention if you feel unwell.
P405: Store locked up.
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GROUP D:

2.1 CLASSIFICATION OF SUBSTANCE OR MIXTURE – The product described in Section 1 is classified as hazardous according to applicable GHS hazard classification criteria as required and defined in European Parliament and Council Regulations (EC) No 1907/2006 and (EC) No 1272/2008.

- Skin Corrosion/Irritation Category 2
- Serious Eye Damage/Eye Irritation Category 1
- Specific Target Organ Toxicity (Single Exposure) Category 3
- Carcinogenicity Category 2
- Specific Target Organ Toxicity (Repeated Exposure) Category 2

2.2 LABEL ELEMENTS

Hazard Pictograms:

Signal Word – DANGER

Hazard Statements:

H315: Causes skin irritation
H318: Causes serious eye damage
H335: May cause respiratory irritation
H351: Suspected of causing cancer through inhalation
H373: May cause damage to organs through prolonged or repeated exposure through inhalation

Precautionary Statements:

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P264: Wash affected areas thoroughly after handling.
P271: Use only outdoors or in a well-ventilated area.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352: IF ON SKIN: Wash with plenty of water.
P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313 IF exposed or concerned: Get medical advice/attention.
P308 + P313: IF exposed or concerned: Get medical advice/attention.
P314: Get medical advice/attention if you feel unwell.
P310: Immediately call a POISON CENTER or doctor/physician.
P321: Specific treatment (see on this label).
P332+P313 If skin irritation occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P362: Take off the clothing immediately after exposure and wash it before reuse.
P403+P233: Store in well-ventilated place. Keep container tightly closed.
P405: Store locked up.
P501: Dispose of contents and container in accordance with local and national regulations.

HAZARDS NOT OTHERWISE CLASSIFIED

WARNING! - Avoid breathing welding fumes and gases, they may be dangerous to your health. Always use adequate ventilation. Always use appropriate personal protective equipment.

PRIMARY ROUTES OF ENTRY: Respiratory System, Eyes and/or Skin. See Section 8.

ARC RAYS: The welding arc can injure eyes and burn skin.

ELECTRIC SHOCK: Arc welding and associated processes can kill. See Section 8.

FUMES AND GASES: Can be dangerous to your health.

Welding fumes and gases cannot be classified simply. The composition and quantity of both are dependent upon the metal being welded, the process, procedures and electrodes used. Most fume ingredients are present as complex oxides and compounds and not as pure metals. When the electrode is consumed, the fume and gas decomposition products generated are different in percent and form from the ingredients listed in Section 3. Decomposition products of normal operation include those originating from the volatilization, reaction or oxidation, plus those from the base metal and coating, etc., of the materials shown in Section 3 of this Safety Data Sheet. Monitor for the component materials identified in the list in Section 3.

Fumes from the use of this product may contain complex oxides or compounds of the following elements and molecules: amorphous silica fume, calcium oxide, fluorospir or fluorides, manganese and silica. Other reasonably expected constituents of the fume would also include complex oxides of iron, titanium and silicon. Gaseous reaction products may include carbon monoxide and carbon dioxide. Ozone and nitrogen oxides may be formed by the radiation from the arc. Other conditions which also influence the composition and quantity of the fumes and gases to which workers may be exposed include: coatings on the metal being welded (such as paint, plating or galvanizing), the number of welders and the volume of the work area, the quality and amount of ventilation, the position of the welder’s head with respect to the fume plume, as well as the presence of contaminants in the atmosphere (such as chlorinated hydrocarbon vapors from cleaning and degreasing activities). One recommended way to determine the composition and quantity of fumes and gases to which workers are exposed is to take an air sample inside the welder’s helmet if worn or in the worker’s breathing zone. See ANSI/AWS F1.1 and F1.3, available from the "American Welding Society", 8669 NW 36 Street, # 130, Miami, Florida 33166-6672, Phone: 800-443-9353 or 305-443-9353.
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SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS

IMPORTANT - This section covers the hazardous materials from which this product is manufactured. This data has been classified according to the criteria of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) as required and defined in OSHA Hazard Communication Standard (29 CFR Part 1910.1200). The fumes and gases produced during welding with normal use of this product are addressed in Section 8.

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>CAS NO.</th>
<th>EINECS'</th>
<th>GROUP AND %WEIGHT</th>
<th>GHS Classification(s)</th>
<th>GHS HAZARD STATEMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALUMINUM OXIDE</td>
<td>1344-28-1</td>
<td>215-691-6</td>
<td>20-30 10-20 15-45 10-20</td>
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<tr>
<td>CALCIUM CARBONATE</td>
<td>471-34-1</td>
<td>207-439-9</td>
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<td>CALCIUM CARBONATE</td>
<td>1317-65-3</td>
<td>215-279-6</td>
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<td>CALCIUM OXIDE</td>
<td>1305-78-8</td>
<td>215-138-9</td>
<td>--- --- --- 3-10</td>
<td>- Skin Corr. 2(1) - Eye Irrit. 1(2)</td>
<td>H315 H318 H355</td>
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<tr>
<td>FLUORSPAR</td>
<td>7789-75-5</td>
<td>232-188-7</td>
<td>5-10 25-35 3-10 10-20</td>
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<td>IRON</td>
<td>7439-89-6</td>
<td>231-096-4</td>
<td>&lt;5 --- &lt;5 &lt;2</td>
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<td>KAOLIN</td>
<td>1332-58-7</td>
<td>310-164-1</td>
<td>&lt;5 --- 0-10 ---</td>
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<td>MANGANESE</td>
<td>7439-96-5</td>
<td>231-105-1</td>
<td>5-10 &lt;5 0-10 ---</td>
<td>- Acute Tox. 4 (Ora)(4) - Acute Tox. 4 (Inhalation)(4)</td>
<td>H302 H332 H372</td>
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<tr>
<td>MANGANOUS OXIDE</td>
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<td>POTASSIUM SILICATE</td>
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<td>215-199-1</td>
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<td>SILICA</td>
<td>14808-60-7</td>
<td>238-878-4</td>
<td>&lt;7 3-10 15-25(6) 30-40</td>
<td>- STOT RE 2(3) - Carc. 2(5)</td>
<td>H373 H351</td>
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<td>(Amorphous Silica Fume)</td>
<td>69012-64-2</td>
<td>273-761-1</td>
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<td>SILICON</td>
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<td>SODIUM SILICATE</td>
<td>1344-09-8</td>
<td>215-687-4</td>
<td>0-1 0-2 0-2 ---</td>
<td>NONE</td>
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<tr>
<td>TITANIUM DIOXIDE</td>
<td>13463-67-7</td>
<td>236-675-5</td>
<td>&lt;5 --- &lt;5 ---</td>
<td>- Pyr. Sol. 1(8) - Water-react. 1(9)</td>
<td>H250 H260</td>
</tr>
<tr>
<td>ZIRCONIUM</td>
<td>7440-67-7</td>
<td>231-176-9</td>
<td>&lt;5 --- --- ---</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

--- Dashes indicate the ingredient is not present within the group of products Γ – European Inventory of Existing Commercial Chemical Substances (1) Skin corrosion/irritation (Categories 1, 1A, 1B, 1C and 2) (2) Serious eye damage/eye irritation (Cat. 1 and 2) (3) Specific target organ toxicity (STOT) – single exposure (Cat. 1, 2 and 3) (4) Acute toxicity (Cat. 1, 2, 3 and 4) (5) Specific target organ toxicity (STOT) – repeated exposure (Cat. 1 and 2) (6) – Group C – Not Present in HA-495 (7) Carcinogenicity (Cat. 1A, 1B and 2) (8) Pyrophoric solid (Cat. 1) (9) Substance or mixture which in contact with water emits flammable gases (Cat. 1, 2 and 3)

SECTION 4 – FIRST AID MEASURES

INGESTION: Not an expected route of exposure. Do not eat, drink, or smoke while welding; wash hands thoroughly before performing these activities. If symptoms develop, seek medical attention at once.

INHALATION during welding: If breathing is difficult, provide fresh air and contact physician. If breathing has stopped, perform artificial respiration and obtain medical assistance at once.

SKIN CONTACT during welding: Remove contaminated clothing and wash the skin thoroughly with soap and water. If symptoms develop, seek medical attention at once.

EYE CONTACT during welding: Dust or fume from this product should be flushed from the eyes with copious amounts of clean, tepid water until victim is transported to an emergency medical facility. Do not allow victim to rub or keep eyes tightly closed. Obtain medical assistance at once. Arc rays can injure eyes. If exposed to arc rays, move victim to dark room, remove contact lenses as necessary for treatment, cover eyes with a padded dressing and rest. Obtain medical assistance if symptoms persist.

Section 11 of this SDS covers the acute effects of overexposure to the various ingredients within the welding consumable. Section 8 of this SDS lists the exposure limits and covers methods for protecting yourself and your co-workers.
SAFETY DATA SHEET

SECTION 5 – FIRE-FIGHTING MEASURES

Fire Hazards: Welding consumables applicable to this sheet as shipped are nonreactive, nonflammable, non-explosive and essentially nonhazardous until welded. Welding arcs and sparks can ignite combustibles and flammable products. If there are flammable materials, including fuel or hydraulic lines, in the work area and the worker cannot move the work or the flammable material, a fire-resistant shield such as a piece of sheet metal or fire resistant blanket should be placed over the flammable material. If welding work is conducted within 35 feet or so of flammable materials, station a responsible person in the work zone to act as fire watcher to observe where sparks are flying and to grab an extinguisher or sound the alarm if needed. Unused welding consumables may remain hot for a period of time after completion of a welding process. See American National Standard Institute (ANSI) Z49.1 for further general safety information on the use and handling of welding consumables and associated procedures. Suitable Extinguishing Media: This product, as shipped, is essentially nonhazardous until welded; therefore, use a suitable extinguishing agent for a surrounding fire. Unsuitable Extinguishing Media: None known.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

In the case of a release of solid welding consumable products, granular flux objects can be swept up and placed into a disposal container. If airborne dust and/or fume is present, use adequate engineering controls and, if needed, personal protection to prevent overexposure. Refer to recommendations in Section 8. Wear proper personal protective equipment while handling. Do not discard as general trash.

SECTION 7 – HANDLING AND STORAGE

HANDLING: No specific requirements in the form supplied. Handle with care to avoid cuts. Wear gloves when handling welding consumables. Avoid exposure to dust. Do not ingest. Some individuals can develop an allergic reaction to certain materials. Retain all warning and product labels. STOR Age: Keep separate from acids and strong bases to prevent possible chemical reactions.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Read and understand the instructions and the labels on the packaging. Welding fumes do not have a specific OSHA PEL (Permissible Exposure Limit) or ACGIH TLV (Threshold Limit Value). The OSHA PEL for Particulates – Not Otherwise Regulated (PNOR) is 5 mg/m³ – Respirable Fraction, 15 mg/m³ – Total Dust. The ACGIH TLV for Particles – Not Otherwise Specified (PNOS) is 3 mg/m³ – Respirable Particles, 10 mg/m³ – Inhalable Particles. The individual complex compounds within the fume may have a lower OSHA PEL or ACGIH TLV than the OSHA PNOR and ACGIH PNOS. An Industrial Hygienist, the OSHA PELs for Air Contaminants (29 CFR 1910.1000), and the ACGIH TLVs should be consulted to determine the specific fume constituents present and their respective exposure limits. All exposure limits are in milligrams per cubic meter (mg/m³).

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Welding consumables applicable to this sheet as shipped are nonreactive, nonflammable, non-explosive and essentially nonhazardous until welded. PHYSICAL STATE: Solid
SAFETY DATA SHEET

GENERAL: Welding consumables applicable to this sheet are solid and nonvolatile as shipped. This product is only intended for use per the welding parameters it was designed for. When this product is used for welding, hazardous fumes may be created. Other factors to consider include the base metal, base metal preparation and base metal coatings. All of these factors can contribute to the fume and gases generated during welding. The amount of fume varies with the welding parameters.

STABILITY: This product is stable under normal conditions.

REACTIVITY: Contact with acids or strong bases may cause generation of gas.

SECTION 10 – STABILITY AND REACTIVITY

SECTION 11 – TOXICOLOGICAL INFORMATION

SHORT-TERM (ACUTE) OVEREXPOSURE EFFECTS: Welding Fumes - May result in discomfort such as dizziness, nausea or dryness or irritation of nose, throat or eyes. Aluminum Oxide, Kaolin - Irritation of the respiratory system. Calcium Oxide - Dust or fumes may cause irritation of the respiratory system, skin and eyes. Fluorides - Fluoride compounds evolved may cause skin and eye burns, pulmonary edema and bronchitis. Iron, Iron Oxide - None are known. Treat as nuisance dust or fume. Magnesium, Magnesium Oxide - Overexposure to the oxide may cause metal fume fever characterized by metallic taste, tightness of chest and fever. Symptoms may last 24 to 48 hours following overexposure. Manganese, Manganous Oxide - Metal fume fever characterized by chills, fever, upset stomach, vomiting, irritation of the throat and aching of body. Recovery is generally complete within 48 hours of the overexposure. Nickel, Nickel Compounds - Metallic taste, nausea, tightness in chest, metal fume fever, allergic reaction. Potassium Oxide - Dust or fumes may cause irritation of the respiratory system, skin and eyes. Silica (Amorphous) - Dust and fumes may cause irritation of the respiratory system, skin and eyes. Silica (Crystalline Quartz) - Irritation of the respiratory system, skin, and eyes. Sodium Oxide - Dust or fumes may cause irritation of the respiratory system, skin and eyes. Titanium Dioxide - Irritation of respiratory system. Zirconium - May cause irritation of the eyes, nose and throat due to mechanical effects.

LONG-TERM (CHRONIC) OVEREXPOSURE EFFECTS: Welding Fumes - Excess levels may cause bronchial asthma, lung fibrosis, pneumoconiosis or ‘siderosis.’ Studies have concluded that there is sufficient evidence for occupational melanoma in welders. Aluminum Oxide, Kaolin - Pulmonary fibrosis and emphysema. Calcium Oxide - Prolonged overexposure may cause ulceration of the skin and perforation of the nasal septum, dermatitis and pneumonia. Fluorides - Serious bone erosion (Osteoporosis) and mottling of teeth. Iron, Iron Oxide Fumes - Can cause siderosis (deposits of iron in lungs) which some researchers believe may affect pulmonary function. Lungs will clear in time when exposure to iron and its compounds ceases. Iron and magnetite (FeOx) are not regarded as fibrogenic materials. Magnesium, Magnesium Oxide - No adverse long term health effects have been reported in the literature. Manganese, Manganous Oxide - Long-term overexposure to manganese compounds may affect the central nervous system. Symptoms may be similar to Parkinson’s disease and can include slowness, changes in handwriting, gait impairment, muscle spasms and cramps and less commonly, tremor and behavioral changes. Employees who are overexposed to manganese compounds should be seen by a physician for early detection of neurologic problems. Overexposure to manganese and manganese compounds above safe exposure limits can cause irreversible damage to the central nervous system, including the brain, symptoms of which may include slurred speech, lethargy, tremor, muscular weakness, psychological disturbances and spastic gait. Potassium Oxide - Prolonged overexposure may cause ulceration of the skin and perforation of the nasal septum, dermatitis and pneumonia. Silica (Amorphous) - Research indicates that silica is present in welding fume in the amorphous form. Long term overexposure may cause pneumoconiosis. Noncrystalline forms of silica (amorphous silica) are considered to have little fibrict potential. Silica (Crystalline Quartz) - Overexposure can cause silicosis. IARC studies indicate sufficient evidence for carcinogenicity in humans. Sodium Oxide - Prolonged overexposure may cause ulceration of the skin and perforation of the nasal septum, dermatitis and pneumonia. Titanium Dioxide - Pulmonary irritation and slight fibrosis. Zirconium – May cause pulmonary fibrosis and pneumoconiosis.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Persons with pre-existing impaired lung functions (asthma-like conditions). Persons with a pacemaker should not go near welding and cutting operations until they have consulted their doctor and obtained information from the manufacturer of the device. Respirators are to be worn only after being medically cleared by your company-designated physician.

EMERGENCY AND FIRST AID PROCEDURES: Call for medical aid. Employ first aid techniques recommended by the International Red Cross. If irritation or flash burns develop after exposure, consult a physician.

CARCINOGENICITY: Silica (crystalline quartz) is classified as IARC Group 1 and NTP Group K carcinogen. Titanium dioxide and welding fumes are classified as IARC Group 2B carcinogens.

CALIFORNIA PROPOSITION 65: These products can expose you to chemicals, including crystalline silica, which are known to the State of California to cause cancer, and to carbon monoxide, which is known to the State of California to cause birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.
E – International Agency for Research on Cancer (1 – Carcinogenic to Humans, 2A – Probably Carcinogenic to Humans, 2B – Possibly Carcinogenic to Humans, 3 – Not Classifiable as to its Carcinogenicity to Humans, 4 – Probably Not Carcinogenic to Humans) Z – US National Toxicology Program (K – Known Carcinogen, S – Suspected Carcinogen) H – OSHA Designated Carcinogen List Θ – California Proposition 65 (X – On Proposition 65 list) Ψ – Silica Crystalline α-Quartz --- Dashes indicate the ingredient is not listed with the IARC, NTP, OSHA or Prop 65

SECTION 12 – ECOLOGICAL INFORMATION

Welding processes can release fumes directly to the environment. Welding flux (granular) can degrade if left outside and unprotected. Residues from welding consumables and processes could degrade and accumulate in the soil and groundwater.

SECTION 13 – DISPOSAL CONSIDERATIONS

Use recycling procedures if available. Discard any product, residue, packaging, disposable container or liner in an environmentally acceptable manner, in full compliance with federal, state and local regulations.

SECTION 14 – TRANSPORT INFORMATION

No international regulations or restrictions are applicable. No special precautions are necessary.

SECTION 15 – REGULATORY INFORMATION

Read and understand the manufacturer’s instructions, your employer’s safety practices and the health and safety instructions on the label and the material safety data sheet. Observe all local and federal rules and regulations. Take all necessary precautions to protect yourself and others.

United States EPA Toxic Substance Control Act: All constituents of these products are on the TSCA inventory list or are excluded from listing.

CERCLA/SARA TITLE III: Reportable Quantities (RQs) and/or Threshold Planning Quantities (TPQs):

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>RQ(lb)</th>
<th>TPQ (lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Products on this SDS are in the form of a granular solid.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center and to your Local Emergency Planning Committee.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section 311 Hazard Class

As shipped: Immediate In use: Immediate delayed

EPCRA/SARA TITLE III 313 TOXIC CHEMICALS: The following metallic components are listed as SARA 313 “Toxic Chemicals” and potentially subject to annual SARA 312 reporting: Aluminum Oxide and Manganese. See Section 3 for weight percentage.

CANADIAN WHMIS CLASSIFICATION: Class D; Division 2, Subdivision A

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA): All constituents of these products are on the Domestic Substance List (DSL).

SECTION 16 – OTHER INFORMATION

The following Hazard Statements, provided in the OSHA Hazard Communication Standard (29 CFR Part 1910.1200) correspond to the columns labeled ‘GHS Hazard Statements’ within Section 3 of this safety data sheet. Take appropriate precautions and protective measures to eliminate or limit the associated hazard.

H250: Catches fire spontaneously if exposed to air
H260: In contact with water releases flammable gases which may ignite spontaneously
H302: Harmful if swallowed.
H315: Causes skin irritation
H318: Causes serious eye damage
H332: Harmful if inhaled
H335: May cause respiratory irritation
H351: Suspected of causing cancer
H372: Causes damage to organs through prolonged or repeated exposure
H373: May cause damage to organs through prolonged or repeated exposure

For additional information please refer to the following sources:


Threshold Limit Values and Biological Exposure Indices, American Conference of Governmental Industrial Hygienists (ACGIH), 6500 Glenway Ave., Cincinnati, Ohio 45211, USA.

NFPA 518 “Standard for Fire Prevention During Welding, Cutting and Other Hot Work” published by the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169.

Canada: CSA Standard CAN/CSA-W117.2-01 “Safety in Welding, Cutting and Allied Processes”.

Hobart Brothers LLC strongly recommends the users of this product study this SDS, the product label information and become aware of all hazards associated with welding. Hobart Brothers LLC believes this data to be accurate and to reflect qualified expert opinion regarding current research. However, Hobart Brothers LLC cannot make any expressed or implied warranty as to this information.

SAFETY DATA SHEET

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>SDS NO:</th>
<th>REVISED:</th>
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<tbody>
<tr>
<td>MANGANOUS OXIDE</td>
<td>1344-43-0</td>
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<tr>
<td>POTASSIUM SILICATE</td>
<td>1312-76-1</td>
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<tr>
<td>SILICA</td>
<td>14808-60-7</td>
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<tr>
<td>TITANIUM DIOXIDE</td>
<td>13463-67-7</td>
<td>2B</td>
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<tr>
<td>ULTRAVIOLET RADIATION</td>
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</tr>
<tr>
<td>WELDING FLUX</td>
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<tr>
<td>ZIRCONIUM</td>
<td>7440-67-7</td>
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