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 to comply with 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
Name: HOBART BROTHERS LLC
Address: 101 TRADE SQUARE EAST, TROY, OH 45373
Telephone No: +1 (937) 332-4000
Emergency No: +1 (800) 424-9300
Canada: +1 (519) 737-3000
Address: 2570 NORTH TALBOT ROAD, OLDCASTLE, ONTARIO, CANADA N0R1L0
Website: www.hobart.com

Products Type:
GROUP A: Product For: Gas Shielded Carbon and Low Alloy Steel
Trade Name: ECLIPSE RRX-XLS, ULTIMET 716; FABC0 11, 22, 37, 72, 82HD, 85, 90, 105SD, 711M, 791, 811A1, EXCEL-ARC 71, FABDUAL T9M, HORNET, RRX, RRX-XLS, SUPER-COR, TR70, TRIPLE-7, TRIPLE-8, XL-71; FABCOR 70, 71, 80D2, 80XLS, 86R, 96, 702, 6F6, 6F5S, ULTIMET 716; FLUX-COR 2, 7, 37, 80A1; GALVACOR, HOBART 717, 71TM, 77TM, ET7-TS, METAL-COR 6, 6L, 80D2, EN-VISION; METALLOY 70R, 76, X-CEL; SPEED-ALLOY 70, 71, 71A, 71-V, 719, 75; SPEED-COR 6; TM 55, 81A1, 9502, RX7; VERSATILE; VERTI-COR I, II, III; VISION AP70, HiDep 70, MetCOR 70; SubCOR EM12K-S, EM13K-S, EM13K-S MOD

GROUP B: Product For: Self-Shielded Carbon Steel
Trade Name: FABSHIELD 4, 21B, 23, 55, 7027; SELF-SHIELD 4, 11, 11GS; SPEED-SHIELD 11, GS; TM 44, 121, 123

GROUP C: Product For: Carbon and Low Alloy Steel

GROUP D: Product For: Corrosion Resisting Steel
Trade Name: FABC0 5055, 86, 89 FABC0 409, 6FW; FABLOY 409, 439; FABTU F60; POWERCORE 91; MEGAFIL P5M; SubCOR SL PS, SL P9, SL P91, SL P92

AWS Specification: Varies

Recommended Use: TUBULAR ARC WELDING ELECTRODES

Restrictions on Use: Use only as indicated for welding operations.

SECTION 2 – IDENTIFICATION OF HAZARDS

HAZARD CLASSIFICATION – The products described in Section 1 are not classified as hazardous according to applicable GHS hazard classification criteria as required and defined in OSHA Hazard Communication Standard (29 CFR Part 1910.1200), Canada’s Hazardous Products Regulations and Mexico’s Harmonized System for Identification and Communication of Hazards and Risks from Hazardous Chemicals in the Workplace.

LABEL ELEMENTS: Hazard Symbol – No symbol required
Hazard Statement – Not applicable
Signal Word – No signal word required
Precautionary Statement – Not Applicable

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.

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

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

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 and is available on our website at www.hobartbrothers.com, from your sales representative or by calling customer service at 1 (937) 332-4000.

Fumes from the use of this product may contain complex oxides or compounds of the following elements and molecules: amorphous silica fume, antimony trioxide, barium, calcium oxide, chromium, copper, fluorine or fluorides, lithium, manganese, nickel, silica and strontium. Other reasonably expected constituents of the fume would also include complex oxides of iron, titanium, silicon and molybdenum. Gaseous reaction products may include carbon monoxide and carbon dioxide. Oxygen and nitrogen oxides may be formed by the reaction 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).
SAFETY DATA SHEET

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 (See Section 16 for Complete Phrases)</th>
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<td>ALUMINUM</td>
<td>7429-90-5</td>
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SAFETY DATA SHEET

--- Dashes indicate the ingredient is not present within the group of products; Γ = European Inventory of Existing Commercial Chemical Substance Number (1) Present only in FABCO ELEMENT 70C, 70M and 71M; FABCO XTREME 71, 81K2, 101, 120, 82, B3; FABSHIELD 3Ni1, 71K6, 71K6-NP, 71T8, 81Ni1, 81Ni1+, 81Ni2, 91T8, OFFSHORE 71Ni, PIPE ROOT 1, X80, X90, X100, XLNT-6 (2) Pyrophoric solid (Cat. 1) (3) Substance or mixture which in contact with water emits flammable gases (Cat. 1, 2 and 3) (4) Flammable solid (Cat. 1 and 2) (5) Present only in FABCOR 90, ACE, CVN, EDGE, EDGE D2, EDGE MC, EDGE N1, EDGE XP, ELEMENT 70CC, ELEMENT 80Ni1, HERCULES, MATRIX; METAL-COR MAXIM; METALLOY VANTAGE, VANTAGE CVN, VANTAGE D2, VANTAGE N1. (6) Carcinogenicity (Cat. 1A, 1B and 2) (7) Present only in FABCO ELEMENT 70F LF; FABCO XTREME 71, 81K2, 101, 120, 82, B3; FABSHIELD XLNT-6 (8) Present only in FABSHIELD 21B, 23; TM 121, 123; SELF-SHIELD 11, 11G5 (9) Present only in FABCO XTREME 71, 81K2, 101, 120, 82, B3; FABSHIELD 3Ni1, 71K6, 71K6-NP, 71T8, 81Ni1, 81Ni1+, 81Ni2, 91T8, XLNT-6, X80, X90, X100; FABSHIELD OFFSHORE 71Ni (10) Present only in FABSHIELD 21B, 0.030" and 0.035". 23, 7027, PIPE ROOT 1; SELF-SHIELD 11, 0.030" and 0.035" 11G5; SPEED-SHIELD 11, 0.030" and 0.035" GS; TM 121, 0.030" and 0.035" 123 (11) Present only in FABSHIELD 71K6, 71K6-NP, 71T8, 81Ni1, 81Ni1+, 81Ni2, 91T8, OFFSHORE 71Ni, XLNT-6, X80, X90, X100 (12) Present only in FABSHIELD 71K6, 81Ni1, 81Ni2, X80, X90, X100 (13) Respiratory sensitization (Cat. 1, Sub-cat. 1A and 1B) (14) Skin sensitization (Cat. 1, Sub-cat. 1A and 1B) (15) Present only in ELEMENT 711C, 81Ni2C; FABCOR 105SD2, 110K3-M; FABCOR F6W; GALVACOR; METALLOY WS; TM-81W, 811W; SubCOR WS; all MEGAfil and SubCOR SL products (16) Present only in FABCO 85, 105SD2; METALLOY EM13K-S; SPEED-ALLOY 105SD2; TM 55, 795D2, 105SD2; SubCOR EM13K-S, EM13K-S MOD (17) See EUH-Statements in Section 16 (18) Skin corrosion/irritation (Cat. 1, 1A, 1B, 1C and 2) (19) Present only in FABCO 70XHP, 71 HYD, 101, 101M, 712C, 712M, 750C, 75OM, 812 Ni1M, 91K2-C (0.052-in. only); ELEMENT 711C, 711TM, 711NiC, 711Ni1M, 81K2C, 81K2M, 81Ni2C; FABSHIELD 3Ni1, 7027, 71K6, 71K6-NP, 71T8, 81Ni1, 81Ni2, 91T8, OFFSHORE 71Ni, PIPE ROOT 1, X80, X90, X100 (20) Self-heating substance or mixture (Cat. 1 and 2) (21) Acute toxicity (Cat. 1, 2, 3 and 4) (22) Specific target organ toxicity (STOT) – repeated exposure (Cat. 1) and 2) (23) Serious eye damage/eye irritation (Cat. 1 and 2) (24) Specific target organ toxicity (STOT) – single exposure (Cat. 1, 2 and 3) and Cat. 3 for narcotic effects and respiratory tract irritation only) (25) Present only in FABSHIELD 55 (26) Present only in FABSHIELD 0.045" – 3/32" 21B; TM 121 (27) Present only in FabCOR F6LS (28) Oxidizing solid (Cat. 1 and 2) (29) Germ cell mutagenicity (Cat. 1A, 1B and 2) (30) Reproductive toxicity (Cat. 1A, 1B and 2)

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.

SECTION 5 -- FIRE-FIGHTING MEASURES

Fire Hazards: Welding consumables applicable to this sheet are nonreactive, nonflammable, non-explosive and essentially nonhazardous until welded.
SAFETY DATA SHEET

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 is essentially nonflammable 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, solid objects can be picked 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 consumable.

STORAGE: Keep separate from acids and strong bases to prevent possible chemical reactions.

SECTION 8 - EXPOSURE CONTROLS AND 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 Particulate – 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, 5 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).

INGREDIENT

<table>
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<tr>
<th>CAS</th>
<th>EINECS</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
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<tbody>
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<td>1344-28-1</td>
<td>5 R*</td>
<td>1 R* (A4)</td>
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<tr>
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<td>231-073-2</td>
<td>5 R* (Dust), 15</td>
</tr>
</tbody>
</table>

COBALT (Metal, dust and fume, as Co)

COPPER

FLUOR SPAR

IRON

IRON OXIDE

LITHIUM CARBONATE

LITHIUM FLUORIDE

LITHIUM OXIDE

MANGANESE

MANGANESE OXIDE

MANGANESE NICKEL

MOLYBENUM

NICKEL

SILICA++

(|Amorphous Silica Fume|)

SILICON+

STANNUM FLUORIDE

TITANIUM+

TITANIUM DIOXIDE

ZINC

ZIRCONIUM

R* - Respirable Fraction  I* - Inhaleable Fraction  CEIL - Ceiling Limit  STEL - Short Term Exposure Limit  + - As a nuisance particulate covered under "Particulates Not Otherwise Regulated" by OSHA or "Particulates Not Otherwise Specified" by ACGIH  ++ - Crystalline silica is bound within the product as it exists in the package. However, research indicates silica is present in welding fume in the amorphous (noncrystalline) form  - # - Reportable material under Section 313 of SARA  - # - Reportable material under Section 313 of SARA only in fibrous form - ### - Reportable material under Section 313 of SARA as dust or fume -  - NIOSH REL TWA and STEL  - ACGIH Ceiling Limit of 1 mg/m³ - Limit of 0.1 mg/m³ is for Inhalable Mn in 2015 by ACGIH  - Limit of 0.02 mg/m³ is for Respirable Mn in 2015 by ACGIH + - Element Soluble Insol Insoluble Inorganic Pcnts - Component NOS - Not Otherwise Specified (A1) - Confirmed Human Carcinogen per ACGIH (A2) - Suspected Human Carcinogen per ACGIH (A3) - Confirmed Animal Carcinogens with Unknown Relation to Humans per ACGIH (A4) - Not Classifiable as a Human Carcinogen per ACGIH (A5) - Not Suspected as a Human Carcinogen per ACGIH (noncrystalline form) - DSEN - Dermal Sensitization - RSEN - Respiratory Sensitization - EINECS - European Inventory of Existing Commercial Chemical Substance Number - OSHA - U.S. Occupational Safety and Health Administration - ACGIH - American Conference of Governmental Industrial Hygienists

VENTILATION: Use enough ventilation or local exhaust at the arc or both to keep the fumes and gases below the PEL/TLV in the worker's breathing zone and the general area. Train the welder to keep his head out of the fumes.
SAFETY DATA SHEET

RESPIRATORY PROTECTION: Use NIOSH-approved or equivalent fume respirator or air supplied respirator when welding in confined space or where local exhaust or ventilation does not keep exposure below the regulatory limits.

EYE PROTECTION: Wear helmet or use face shield with filter for open arc welding processes. As a rule of thumb begin with Shade Number 14. Adjust if needed by selecting the next lighter and/or darker shade number. Provide protective screens and flash goggles, if necessary, to shield others from the weld arc flash.

PROTECTIVE CLOTHING: Wear hand, head and body protection which help to prevent injury from radiation, sparks and electrical shock. See ANSI Z49.1. At a minimum this includes welder’s gloves and a protective face shield, and may include arm protectors, aprons, hats, shoulder protection as well as dark non-synthetic clothing. Train the welder not to touch live electrical parts and to insulate himself from work and ground.

PROCEDURE FOR CLEANUP OF SPILLS OR LEAKS: Not applicable

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

APPEARANCE: Round, Cored Wire

COLOR: Gray or Copper (shiny metallic)

ODOR: Odorless

PH: Not Applicable

MELTING POINT/FREEZING POINT: Not Available

INITIAL BOILING POINT AND BOILING RANGE: Not Available

FLASH POINT: Not Available

EVAPORATION RATE: Not Available

PARTITION COEFFICIENT: n-Octanol/Water: Not Available

STABILITY AND REACTIVITY

GENERAL: Welding consumables applicable to this sheet as shipped are nonreactive, nonflammable, non-explosive and essentially nonhazardous until welded.

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

LONG-TERM (CHRONIC) OVEREXPOSURE EFFECTS: Welding Fumes - May result in discomfort such as dizziness, nausea or dryness or irritation of nose, throat or eyes. Aluminum Oxide - Irritation of the respiratory system. Antimony Compounds - Irritation of nose, throat, eyes and skin. Barium - Aching eyes, rhinitis, frontal headache, wheezing, laryngeal spasms, salivation or anoxia. Calcium Oxide - Dust or fumes may cause irritation of the respiratory system, skin and eyes. Chromium - Inhalation of fume with chromium (VI) compounds can cause irritation of the respiratory tract, lung damage and asthma-like symptoms. Swallowing chromium (VI) salts can cause severe injury or death. Dust on skin can form ulcers. Eyes may be burned by chromium (VII) compounds. Allergic reactions may occur in some people. Cobalt - Pulmonary irritation, cough, dermatitis, weight loss. Copper - Metal fume fever characterized by metallic taste, tightness of chest and fever. Symptoms may last 24 to 48 hours following overexposure. 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. Lithium Compounds - Overexposure may cause tremor and nausea. 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, Manganese 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. Molybdenum, Cerium Oxide - Irritation of the eyes, nose and throat. Nickel, Nickel Compounds - Metallic taste, nausea, tightness in chest, metal fume fever, allergic reaction. Silica (Amorphous) - Dust and fumes may cause irritation of the respiratory system, skin and eyes. Strontium Compounds - Strontium salts are generally non-toxic and are normally present in the human body. In large oral doses, they may cause gastrointestinal disorders, vomiting and diarrhea. Titanium Dioxide - Irritation of respiratory system. Zinc - Metal fume fever stomach cramps, skin irritations, vomiting, nausea and anemia. Zirconium - May cause irritation of the eyes, nose and throat due to mechanical effects.

LONG-TERM (ACUTE) OVEREXPOSURE EFFECTS: Welding Fumes - May result in discomfort such as dizziness, nausea or dryness or irritation of nose, throat or eyes. Calcium Oxide - Dust or fumes may cause irritation of the respiratory system, skin and eyes. Chromium - Inhalation of fume with chromium (VI) compounds can cause irritation of the respiratory tract, lung damage and asthma-like symptoms. Swallowing chromium (VI) salts can cause severe injury or death. Dust on skin can form ulcers. Eyes may be burned by chromium (VII) compounds. Allergic reactions may occur in some people. Cobalt - Pulmonary irritation, cough, dermatitis, weight loss. Copper - Metal fume fever characterized by metallic taste, tightness of chest and fever. Symptoms may last 24 to 48 hours following overexposure. 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. Lithium Compounds - Overexposure may cause tremor and nausea. 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, Manganese 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. Molybdenum, Cerium Oxide - Irritation of the eyes, nose and throat. Nickel, Nickel Compounds - Metallic taste, nausea, tightness in chest, metal fume fever, allergic reaction. Silica (Amorphous) - Dust and fumes may cause irritation of the respiratory system, skin and eyes. Strontium Compounds - Strontium salts are generally non-toxic and are normally present in the human body. In large oral doses, they may cause gastrointestinal disorders, vomiting and diarrhea. Titanium Dioxide - Irritation of respiratory system. Zinc - Metal fume fever stomach cramps, skin irritations, vomiting, nausea and anemia. Zirconium - May cause irritation of the eyes, nose and throat due to mechanical effects.

No adverse long term health effects have been reported in the literature.
SAFETY DATA SHEET

pneumoniosis. Noncrystalline forms of silica (amorphous silica) are considered to have little fibrotic potential. Strontium Compounds - Strontium at high doses is known to concentrate in bone. Major signs of chronic toxicity, which involve the skeleton, have been labeled as "strontium rickets". Titanium Dioxide - Pulmonary irritation and slight fibrosis. Zinc - damage the pancreas and disturb the protein metabolism, and cause arteriosclerosis. Zirconium - May cause pulmonary fibrosis and pneumoniosis.

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 American Red Cross. If irrigation or flash burns develop after exposure, consult a physician.

CARCINOGENICITY: Chromium VI compounds, nickel compounds, silica (crystalline quartz), ultraviolet radiation and welding fumes are classified as IARC Group 1 and NTP\(^2\) Group K carcinogens. Titanium dioxide, nickel metal/alleys, antimony trioxide and cobalt are classified as IARC Group 2B carcinogens.

CALIFORNIA PROPOSITION 65:
WARNING: These products can expose you to chemicals, including titanium dioxide and/or chromium and/or nickel, 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.

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<th>INGREDIENT</th>
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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) \(\Sigma\) – US National Toxicology Program (K – Known Carcinogen, S – Suspected Carcinogen) H – OSHA Designated Carcinogen List \(\Theta\) – California Proposition 65 (X – On Proposition 65 list) *** – Dashes indicate the ingredient is not listed with the IARC, NTP, OSHA or 65 \(\Sigma\) – Chromium Metal and Chromium III Compounds \(\Sigma\Sigma\) – Chromium VI \(\beta\beta\) – Nickel metal and alloys \(\beta\beta\) – Nickel compounds \(\psi\) – Silica Crystalline α-Quartz *** – Dashes indicate the ingredient is not listed with the IARC, NTP, OSHA or Proposition 65

SECTION 12 – ECOLOGICAL INFORMATION

Welding processes can release fumes directly to the environment. Welding wire 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 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):
SAFETY DATA SHEET

Ingredient name | RQ(lb) | TPQ (lb)
--- | --- | ---

Products on this SDS are a solid solution in the form of a solid article.

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.

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, Antimony Trioxide, Barium Compounds, Barium Fluoride, Chromium, Cobalt, Copper, Lithium Carbonate, Manganese, Manganese Oxide, Nickel and Zinc. See Section 3 for weight percentage.

CANADIAN CONTROLLED PRODUCTS REGULATION: This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all of the information required by the CPR.

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.

H228: Flammable solid
H250: Catches fire spontaneously if exposed to air
H252: Self-heating in large quantities; may catch fire
H260: In contact with water releases flammable gases which may ignite spontaneously
H261: In contact with water releases flammable gases
H271: May cause fire or explosion; strong oxidizer
H301: Toxic if inhaled
H314: Causes severe skin burns and eye damage
H317: May cause an allergic skin reaction
H330: Harmful if swallowed
H332: Harmful if inhaled
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335: May cause respiratory irritation
H340: May cause genetic defects
H350: May cause cancer
H351: Suspected of causing cancer
H361f: Suspected of damaging fertility or the unborn child
H373: May cause damage to organs through prolonged or repeated exposure
H374: May cause damage to organs through prolonged or repeated exposure
H400: Very toxic to aquatic life.
H410: Very toxic to aquatic life with long lasting effects
H412: Harmful to aquatic life with long lasting effects

The following Supplemental Hazard Information (EUH-Statement) pertaining to Section 3 is also taken from the OSHA Hazard Communication Standard (29 CFR Part 1910.1200):

EUH014 - Reacts violently with water

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 51B “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.