# SAFETY DATA SHEET

This Safety Data Sheet complies with Annex II of 830/2015 amending EC No. 1907/2006,Commision Regulation (EU) 2019/521 amending CLP directive 1272/2008, also in accordance with ISO 11014-1 and ANSI Z400.1

**Issued:** 2021-02-16

# Sureweld 6013-3/32 x 14in
# Sureweld 6013 Electrode 5lb

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### *1.1. Product identifier*

| | |
|---|---|
| **Trade name** | Sureweld 6013-3/32 x 14in Sureweld 6013 Electrode 5lb |

### *1.2. Relevant identified uses of the substance or mixture and uses advised against*

| | |
|---|---|
| **Use** | Arc Welding |

### *1.3. Details of the supplier of the safety data sheet*

| | |
|---|---|
| **SDS created by** | TDS Team |
| **Supplier** | ESAB AB |
| Street address | Box 8004<br>402 77 Göteborg<br>Sweden |
| Telephone | +46 31 509000 |
| Email | sdsrequest@esab.com |
| Web site | www.esab.com |

### *1.4. Emergency telephone number*

| | |
|---|---|
| **Emergency phone number** | 44-870-820041; 44-2038073798 |
| **Available outside office hours** | Yes |

### *Other*

| | |
|---|---|
| **Other** | Classification: AWS A5.1 & A5.5 E6010 |

## SECTION 2: Hazards identification

### *2.1. Classification of the substance or mixture*

The product is not classified

### *2.2. Label elements*

The product does not require labelling in accordance with CLP Regulation (EC) No 1272/2008.

*2.3. Other hazards*

| | |
|---|---|
| **Other hazards** | This product contains titanium dioxide which is possibly carcinogenic. This product contains quartz, but normally not in an inhalable fraction. Quartz can cause silicosis and may cause cancer.<br>Avoid eye contact or inhalation of dust from the product. Skin contact is normally no hazard but should be avoided to prevent possible allergic reactions.<br>Persons with a pacemaker should not go near welding or cutting operations until they have consulted their doctor and obtained information from the manufacturer of the device.<br>When this product is used in a welding process, the most important hazards are welding fumes, heat, radiation and electric shock.<br>Heat: Spatter and melting metal can cause burn injuries and start fires.<br>Radiation: Arc rays can severely damage eyes or skin.<br>Electricity: WARNING: Welding fumes and gases are hazardous to your health and may damage lungs and other organs. Use adequate ventilation.<br>Fumes: Overexposure to welding fumes may result in symptoms like metal fume fever, dizziness, nausea, dryness or irritation of the nose, throat or eyes. Chronic overexposure to welding fumes may affect pulmonary function. 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. psychological disturbances and spastic gait |

*Other*

| | |
|---|---|
| **Other** | Emergency Overview: Coated metal rods in varying colours. This product is normally not considered hazardous as shipped. Gloves should be worn when handling to prevent contaminating hands with product dust. |

## SECTION 3: Composition/information on ingredients

*3.2. Mixtures*

| Chemical name | CAS No.<br>EC No.<br>REACH No.<br>Index No. | Concentration | Classification | H-phrase<br>M factor acute<br>M factor chronic | Note |
|---|---|---|---|---|---|
| IRON(REACh Registered) | 7439-89-6<br>231-096-4<br>-<br>- | 60 - 100% | - | -<br>-<br>- | - |
| TITANIUM OXIDE** | 13463-67-7<br>236-675-5<br>-<br>- | 5 - 10% | - | -<br>-<br>- | - |
| Manganese | 7439-96-5<br>231-105-1<br>-<br>- | 1 - 5% | - | -<br>-<br>- | - |
| SILICATE BINDER (POTASSIUM SILICATE) | 1312-76-1<br>215-199-1<br>-<br>- | 1 - 5% | - | -<br>-<br>- | - |
| Calcium carbonate | 1317-65-3<br>215-279-6<br>-<br>- | 1 - 5% | - | -<br>-<br>- | - |
| Feldspar | 68476-25-5<br>270-666-7<br>-<br>- | 1 - 5% | - | -<br>-<br>- | - |
| QUARTZ* | 14808-60-7<br>238-878-4<br>-<br>- | 0.1 - 1% | STOT RE 1 | H372<br>-<br>- | - |
| Potassium Carbonate | 584-08-7<br>209-529-3<br>-<br>- | 0.1 - 1% | - | -<br>-<br>- | - |
| Cellulose | 9004-34-6<br>232-674-9<br>-<br>- | 0.1 - 1% | - | -<br>-<br>- | - |
| Bentonite | 1302-78-9<br>215-108-5<br>-<br>- | 0.1 - 1% | - | -<br>-<br>- | - |

| | |
|---|---|
| **Product based on** | This product is a preparation of core wire with extruded coating. |

## SECTION 4: First aid measures

*4.1. Description of first aid measures*

| | |
|---|---|
| **Description of first aid measures** | Electric shock: Disconnect and turn off the power. Use a nonconductive material to pull victim away from contact with live parts or wires. If not breathing, begin artificial respiration, preferably mouth-to-mouth. If no detectable pulse, begin Cardio Pulmonary Resuscitation (CPR). call emergency physician to the scene of the accident. |
| **Inhalation** | If breathing has stopped, perform artificial respiration and obtain medical assistance immediately! If breathing is difficult, provide fresh air and call physician. |
| **Skin contact** | For skin burns from arc radiation, promptly flush with cold water. Get medical attention for burns or irritations that persist. To remove dust or particles wash with mild soap and water |
| **Eye contact** | For radiation burns due to arc flash, see physician. To remove dusts or fumes flush with water for at least fifteen minutes. If irritation persists, obtain medical assistance. |

*4.2. Most important symptoms and effects, both acute and delayed*

Not applicable

*4.3. Indication of any immediate medical attention and special treatment needed*

Not applicable

*Other*

| | |
|---|---|
| **Other** | General: Move to fresh air and call for medical aid. |

## SECTION 5: Firefighting measures

*5.1. Extinguishing media*

| | |
|---|---|
| **Suitable extinguishing media** | No specific recommendations for welding consumables. Welding arcs and sparks can ignite combustible and flammable materials. Use the extinguishing media recommended for the burning materials and fire situation. |

*5.2. Special hazards arising from the substance or mixture*

Not applicable

*5.3. Advice for firefighters*

| | |
|---|---|
| **Special protective equipment for fire-fighters** | Wear self-contained breathing apparatus as fumes or vapors may be harmful. |

## SECTION 6: Accidental release measures

*6.1. Personal precautions, protective equipment and emergency procedures*

| | |
|---|---|
| **Personal precautions, protective equipment and emergency procedures** | Wear hand, head, eyes, ear and body protection like welders gloves, helmet or face shield with filter lens, safety boots, apron, arm and shoulder protection. Keep protective clothing clean and dry. |

*6.2. Environmental precautions*

| | |
|---|---|
| **Environmental precautions** | Refer to Section 13. |

*6.3. Methods and material for containment and cleaning up*

| | |
|---|---|
| **Methods and material for containment and cleaning up** | Solid objects may be picked up and placed into a container. Liquids or pastes should be scooped up and placed into a container. Wear proper protective equipment while handling these materials. Do not discard as refuse. |

*6.4. Reference to other sections*

| | |
|---|---|
| **Reference to other sections** | Refer to section 8/13 |

## SECTION 7: Handling and storage

*7.1. Precautions for safe handling*

| | |
|---|---|
| **Preventive handling precautions** | Handle with care to avoid stings and 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 identity labels. |

*7.2. Conditions for safe storage, including any incompatibilities*

| | |
|---|---|
| **Conditions for safe storage, including any incompatibilities** | Keep separate from chemical substances like acids and strong bases, which could cause chemical reactions. |

*7.3. Specific end use(s)*

| | |
|---|---|
| **Specific end use(s)** | Arc Welding |

## SECTION 8: Exposure controls/personal protection

*8.1. Control parameters*

| | |
|---|---|
| **Exposure limits** | Use industrial hygiene monitoring equipment to ensure that exposure does not exceed applicable national exposure limits. The following limits can be used as guidance. Unless noted, all values are for 8 hour time weighted averages (TWA). |

National occupational exposure limits

| Ingredient | CAS No.<br>EC No. | Exposure limit ppm / mg/m³ | Short-term exposure limit ppm / mg/m³ | Source | Remark | Year |
|---|---|---|---|---|---|---|
| Cellulose | 9004-34-6<br>232-674-9 | -<br>10 | -<br>- | UK WEL | inhalable dust | 2020 |
| SILICATE BINDER (POTASSIUM SILICATE) | 1312-76-1<br>215-199-1 | -<br>- | -<br>- | UK WEL | - | 2020 |
| TITANIUM OXIDE** | 13463-67-7<br>236-675-5 | -<br>10 | -<br>- | UK WEL | total inhalable | 2020 |
| MANGANESE | 7439-96-5<br>231-105-1 | -<br>0.2 | -<br>- | UK WEL | Inhalable fraction | 2020 |
| IRON(REACh Registered) | 7439-89-6<br>231-096-4 | -<br>- | -<br>- | UK WEL | - | 2020 |
| Cellulose | 9004-34-6<br>232-674-9 | -<br>4 | -<br>- | UK WEL | respirable dust | 2020 |
| Bentonite | 1302-78-9<br>215-108-5 | -<br>- | -<br>- | UK WEL | - | 2020 |
| TITANIUM OXIDE** | 13463-67-7<br>236-675-5 | -<br>4 | -<br>- | UK WEL | respirable | 2020 |
| MANGANESE | 7439-96-5<br>231-105-1 | -<br>0.05 | -<br>- | UK WEL | Respirable fraction | 2020 |
| Limestone | 1317-65-3<br>215-279-6 | -<br>10 | -<br>- | UK WEL | Inhalable dust | 2020 |
| Feldspar | 68476-25-5<br>270-666-7 | -<br>- | -<br>- | UK WEL | - | 2020 |
| QUARTZ* | 14808-60-7<br>238-878-4 | -<br>- | -<br>- | UK WEL | - | 2020 |
| Limestone | 1317-65-3<br>215-279-6 | -<br>4 | -<br>- | UK WEL | Respirable dust | 2020 |
| Potassium carbonate | 584-08-7<br>209-529-3 | -<br>- | -<br>- | UK WEL | - | 2020 |

*8.2. Exposure controls*

| | |
|---|---|
| **Hand protection** | Abrasion (Cycles):(Type A-2 (500));(Type B-1 (100)); Cut (Factor):(Type A-1 (1.2));(Type B-1 (1.2)); Tear (Newton):(Type A-2 (25));(Type B-1 (10)); Puncture (Newton):(Type A-2 (60));(Type B-1 (20)); Burning Behaviour:(Type A-3);(Type B-2); Contact Heat:(Type A-1);(Type B-1); Convective Heat:(Type A-2);(Type B--); Small Splashes:(Type A-3);(Type B-2); Dexterity:(Type A-1 (11));(Type B-4 (6.5))<br>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 (oC) is 100 and the threshold time (seconds) >15. |

*Other*

| | |
|---|---|
| **Other** | Avoid exposure to welding fumes, radiation, spatter, electric shock, heated materials and dust. |

| | |
|---|---|
| **Ventilation** | Use respirator or air supplied respirator when welding or brazing in a confined space, or where local exhaust or ventilation is not sufficient to keep exposure values within safe limits. Use special care when welding painted or coated steels since hazardous substances from the coating may be emitted. Ensure sufficient ventilation, local exhaust, or both, to keep welding fumes and gases from breathing zone and general area. Keep working place and protective clothing clean and dry. Train welders to avoid contact with live electrical parts and insulate conductive parts. Check condition of protective clothing and equipment on a regular basis. Check condition of protective clothing and equipment on a regular basis. solid, |

## SECTION 9: Physical and chemical properties

*9.1. Information on basic physical and chemical properties*

| | |
|---|---|
| **Appearance, physical state** | Solid, non-volatile with varying color. |
| **Appearance, colour** | Not applicable |
| **Odour** | Not applicable |
| **Odour treshold** | Not applicable |
| **pH value** | Not applicable |
| **Melting point / freezing point** | >1300°C / >2300ºF |
| **Initial boiling point and boiling range** | Not applicable |
| **Flash point** | Not applicable |
| **Evaporation rate** | Not applicable |
| **Flammability (solid, gas)** | Not applicable |
| **Upper / lower flammability or explosive limits** | Not applicable |
| **Vapour pressure** | Not applicable |
| **Vapour density** | Not applicable |
| **Relative density** | Not applicable |
| **Solubility** | Not applicable |
| **Partition coefficient: n-octanol / water** | Not applicable |
| **Ignition temperature** | Not applicable |
| **Decomposition temperature** | Not applicable |
| **Viscosity, kinematic** | Not applicable |
| **Viscosity, dynamic** | Not applicable |

| | |
|---|---|
| **Explosive properties** | Not applicable |
| **Oxidising properties** | Not applicable |

*9.2. Other information*

Not applicable

## SECTION 10: Stability and reactivity

*10.1. Reactivity*

| | |
|---|---|
| **Reactivity** | Non Reactive unless gets in contact with chemical substances like acids or strong bases could cause generation of gas |

*10.2. Chemical stability*

| | |
|---|---|
| **Chemical stability** | Stable at normal conditions |

*10.3. Possibility of hazardous reactions*

| | |
|---|---|
| **Possibility of hazardous reactions** | Not applicable |

*10.4. Conditions to avoid*

| | |
|---|---|
| **Conditions to avoid** | This product is only intended for normal welding purposes. |

*10.5. Incompatible materials*

Not applicable

*10.6. Hazardous decomposition products*

| | |
|---|---|
| **Hazardous decomposition products** | When this product is used in a welding process, hazardous decomposition products would include those from the volatilization, reaction or oxidation of the materials listed in Section 3 and those from the base metal / Coated wire / Coated rod / Bare wire / Bare rod. |

*Other*

| | |
|---|---|
| **Other** | Refer to applicable national exposure limits for fume compounds, including those exposure limits for fume compounds found in Section 8. A significant amount of the chromium in the fumes can be hexavalent chromium, which has a very low exposure limit in some countries. |

## SECTION 11: Toxicological information

*11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008*

| | |
|---|---|
| **Information on toxicological effects** | Inhalation of welding fumes and gases can be dangerous to your health. Classification of welding fumes is difficult because of varying base materials, coatings, air contamination and processes. |
| **Acute toxicity** | Acute toxicity: Overexposure to welding fumes may result in symptoms like metal fume fever, dizziness, nausea, dryness or irritation of the nose, throat or eyes. |

| | |
|---|---|
| **Skin corrosion/irritation** | No data available |
| **Serious eye damage/irritation** | No data available |
| **Respiratory/skin sensitization** | No data available |
| **Germ cell mutagenicity** | No data available |
| **Genotoxicity** | No data available |
| **Carcinogenicity** | |

| **Product / Substance name**<br>**CAS / EC no.** | **Other** |
|---|---|
| QUARTZ*<br>14808-60-7 / 238-878-4 | *This product contains substance(s) that may cause cancer, which is/are classified as Carcinogenic to humans as per IARC. |
| TITANIUM OXIDE**<br>13463-67-7 / 236-675-5 | **This product contains substance(s) that may cause cancer, which is/are classified as Possibly carcinogenic to humans as per IARC. |

| | |
|---|---|
| **Repeated dose toxicity** | No data available |
| **Reproductive toxicity** | No data available |
| **STOT-single exposure** | No data available |
| **STOT-repeated exposure** | No data available |
| **Aspiration hazard** | No data available |
| **LD50 Oral** | No data available |
| **LD50 Dermal** | No data available |
| **LC50 Inhalation** | No data available |
| **Routes of exposure** | No data available |
| **Symptoms related to the physical, chemical and toxicological characteristics** | No data available |
| **Mixture versus substance information** | No data available |
| **Delayed and immediate effects as well as chronic effects from short and long-term exposure** | No data available |
| **Interactive effects** | No data available |
| **Toxicity in case of skin contact** | No data available |
| **Absence of specific data** | No data available |
| **Toxicity in case of eye contact** | No data available |
| **Mixtures** | No data available |

| | |
|---|---|
| **Toxicity in case of ingestion** | No data available |

*Other*

| | |
|---|---|
| **Acute effects** | No data available |
| **Long term effect** | Chronic toxicity: Overexposure to welding fumes may affect pulmonary function. 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. psychological disturbances and spastic gait<br>Inhalable quartz is a respiratory carcinogen however the process of welding converts crystalline quartz to the amorphous form which is not considered to be a carcinogen.<br>Prolonged inhalation of titanium dioxide above safe exposure limits can cause cancer. |

*11.2. Information on other hazards*

Not applicable

## SECTION 12: Ecological information

*12.1. Toxicity*

| | |
|---|---|
| **Acute toxicity** | No data available |
| **Toxicity** | No data available |
| **Aquatic** | No data available |
| **Soil** | No data available |
| **Acute fish toxicity** | No data available |
| **Acute algae toxicity** | No data available |
| **Acute crustacean toxicity** | No data available |
| **Chronical toxicity** | No data available |

*12.2. Persistence and degradability*

| | |
|---|---|
| **Persistence and degradability** | No data available |
| **Decay/transformation** | No data available |

*12.3. Bioaccumulative potential*

| | |
|---|---|
| **Bioaccumulative potential** | No data available |

*12.4. Mobility in soil*

| | |
|---|---|
| **Mobility** | No data available |

*12.5. Results of PBT and vPvB assessment*

| | |
|---|---|
| **Results of PBT and vPvB assessment** | No data available |

*12.6. Endocrine disrupting properties*

| | |
|---|---|
| **Endocrine disrupting properties** | No data available |

*12.7. Other adverse effects*

Not applicable

*Other*

| | |
|---|---|
| **Other** | Welding consumables and materials could degrade/weather into components originating from the consumables or from the materials used in the welding process. Avoid exposure to conditions that could lead to accumulation in soils or groundwater. |

## SECTION 13: Disposal considerations

*13.1. Waste treatment methods*

| | |
|---|---|
| **Disposal considerations** | Discard any product, residue, disposable container or liner in an environmentally acceptable manner, in full compliance with federal and local regulations. Use recycling procedures if available.<br>USA RCRA: This product is not considered hazardous waste if discarded.<br><br>Residues from welding consumables and processes could degrade and accumulate in soils and groundwater. Welding slag from this product typically contains mainly the following components originating from the coating of the electrode: Fe, O, Mn, Cr, Ni, F, Na, Si, K,Ca, Al, Mg, Mo ,Ti. |

## SECTION 14: Transport information

*14.1. UN number*

Not applicable

*14.2. UN proper shipping name*

Not applicable

*14.3. Transport hazard class(es)*

Not applicable

*14.4. Packing group*

Not applicable

*14.5. Environmental hazards*

Not applicable

*14.6. Special precautions for user*

Not applicable

*14.7. Transport in bulk according to Annex II of Marpol and the IBC Code*

Not applicable

## SECTION 15: Regulatory information

*15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture*

| | |
|---|---|
| **EU regulations** | Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.<br>Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006<br>Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)<br>DIRECTIVE 2008/98/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL. of 19 November 2008. on waste and repealing certain Directives.<br>European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste. |

| | |
|---|---|
| **Other regulations, limitations and legal regulations** | Poland Regulations:<br><br>ACT of 25 February 2011 on the chemical substances and their mixtures(OJ # 63, poz. 322).<br><br>Regulation of the Minister of Labour and Social Policy of 6 June 2014 on Maximum Permissible Concentration and Intensity of Agents Harmful to Health in the Working Environment (Dz. u. z. 2014, poz 817).<br>The Act on Waste of 14 December 2012, Journal of Laws of 2013, item 21 with amendments<br><br>Act of 13th June 2013 on packaging management and packaging waste (Journal of Laws of 2013, item 888).<br>Regulation of the Minister of the Environment of 9 December 2014 on waste catalogue (Journal of Laws of 2014, item 1923).<br><br>Regulation of the Minister of Economy of 21 December 2005. Concerning essential requirements for personal protective equipment (Journal. Laws No. 259, item. 2173).<br><br>Regulation of the Minister of Health of 2 February 2011 on tests and measurements of factors harmful to health in the working environment (the Journal of Laws 2011, no. 33, item 166).<br><br>USA Regulations :<br><br>USA: This product contains or produces a chemical known to the state of California to cause cancer and birth defects (or other reproductive harm). (California Health & Safety Code § 25249.5 et seq.)<br><br>CERCLA/SARA Title III Reportable Quantities (RQs) and/or Threshold Planning Quantities (TPQs): Product is 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.<br><br>EPCRA/SARA Title III 313 Toxic Chemicals: The following metallic components are listed as SARA 313 "Toxic Chemicals" and potential subject to annual SARA 313 reporting. See Section 3 for weight percent.<br>Manganese: 1.0% de minimis concentration<br><br>International Inventories:<br><br>Australia: The substance(s) in this product is/are in compliance with the inventory requirements of Australia- Inventory of Industrial Chemicals (AIIC)<br><br>United States EPA Toxic Substance Control Act: All constituents of this product are on the TSCA inventory list or are excluded from listing.<br><br>Canadian Environmental Protection Act (CEPA): All constituent(s) of this product is/are on the Domestic Substance List (DSL). |

### *15.2. Chemical safety assessment*

| | |
|---|---|
| **Chemical safety assessment** | No data available |

*Other*

| | |
|---|---|
| **Other** | Read and understand the manufacturer's instructions, your employer's safety practices and the health and safety instructions on the label. Observe any federal and local regulations. Take precautions when welding and protect yourself and others.<br><br>WARNING: Welding fumes and gases are hazardous to your health and may damage lungs and other organs. Use adequate ventilation. ELECTRIC SHOCK can kill.<br>ARC RAYS and SPARKS can injure eyes and burn skin. |

## SECTION 16: Other information

| | |
|---|---|
| **Changes to previous revision** | Previous Revision of SDS as per Regulation – April 2019; Latest Revision of SDS as per Regulation – May 2020 This Safety Data Sheet has been revised due to modifications to Sections 1-16. |
| **References to key literature and data sources** | Refer to ESAB "Welding & Cutting - Risks and Measures", F52-529 "Precautions and Safe Practices for ARC WELDING, CUTTING & GOUGING" and F2035 "Precautions and Safe Practices for Gas Welding, Cutting and Heating" available from ESAB Website. www.esab.com |
| **Phrase meaning** | STOT RE 1 - Specific Target Organ Toxicity — Repeated exposure, hazard category 1<br>H372 Causes damage to organs through prolonged or repeated exposure .?. |

*Other*

**Additional information**

USA: Contact ESAB at www.esabna.com or 1-800 ESAB-123 if you have any questions about this SDS. American National Standard Z49.1 Safety in Welding and Cutting, ANSI/AWS F1.5 Methods for Sampling and Analyzing Gases from Welding and Allied Processes, ANSI/AWS F1.1 "Method for Sampling Airborne Particles Generated by Welding and Allied Processes", AWSF3.2M/F3.2 "Ventilation Guide for Weld Fume", 550 North Le Jeune Road, Miami Florida 33135. Safety and Health Fact Sheets available from AWS at www.aws.org.
OSHA Publication 2206 (29 C.F.R. 1910), U.S. Government Printing Office, Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954
American Conference of Governmental Hygienists (ACGIH), Threshold Limit Values and Biological Exposure Indices, 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

UK: WMA Publication 236 and 237, "Hazards from Welding fume”, ”The arc welder at work, some general aspects of health and safety".
Germany: Germany: Accident prevention regulation BGV D1, "Welding, cutting and related processes".

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

This product has been classified according to the hazard criteria of the CPR and the SDS contains all of the information required by the CPR.

ESAB requests the users of this product to study this Safety Data Sheet (SDS) and become aware of product hazards and safety information. To promote safe use of this product a user should:
notify its employees, agents and contractors of the information on this SDS and any product hazards/safety information.furnish this same information to each of its customers for the products

Request such customers to notify employees and customers for the same product hazards and safety information.

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