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

*1.1. Product identifier*

**Trade name** Stainflux

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

**Use** To be applied on the root side of welds to prevent oxidation

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

**SDS created by** TDS Team

**Supplier** ESAB DENTON

Street address 2800 Airport Road
Denton, TX 76207

Telephone 1-800-372-2123

Email sdsrequest@esab.com

Web site www.esab.com

*1.4. Emergency telephone number*

**Emergency phone number** 1-800-372-2123

**Available outside office hours** No

## SECTION 2: Hazards identification

*2.1. Classification of the substance or mixture*

**Classification according to Regulation (EC) No 1272/2008, Annex VI**

**Hazard statements** H302, H332, H372

*2.2. Label elements*

**GHS labeling of the substance (in accordance with Regulation (EC) No 1272/2008, Annex VI)**

**Pictogram**

**Signal word** Warning

**Hazard statements** H302 Harmful if swallowed.
H332 Harmful if inhaled.
H372 Causes damage to organs through prolonged or repeated exposure.





**Precaution statements**
P260 Do not breathe dust.
P261 Avoid breathing dust.
P264 Wash hands thoroughly after handling.
P270 Do no 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/doctor/physician if you feel unwell.
P302 + P352 IF ON SKIN: Wash with plenty of water/soap.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a POISON CENTER/doctor physician if you feel unwell.
P314 Get medical advice/attention if you feel unwell.
P321 Specific treatment (see product documents and other cautions on this label).
P330 Rinse mouth.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P501 Dispose of contents/container to containers by lawful and apprpriate disposal methods.

*2.3. Other hazards*

Not applicable

## SECTION 3: Composition/information on ingredients

*3.2. Mixtures*

| *Chemical name* | *CAS No.*<br>*EC No.*<br>*REACH No.* | *Concentration* | *Classification* | *R-phrase*<br>*H-phrase* |
|---|---|---|---|---|
| Quartz* | 14808-60-7<br>238-878-4<br>- | 35 - 45% | -<br>STOT RE 1 | -<br>H372 |
| Calcium hydroxide | 1305-62-0<br>215-137-3<br>- | 25 - 35% | -<br>- | -<br>- |
| Titanium oxide** | 13463-67-7<br>236-675-5<br>- | 10 - 20% | -<br>- | -<br>- |
| Manganese oxide | 1313-13-9<br>215-202-6<br>- | 9 - 10% | -<br>Acute Tox. 4 - oral | -<br>H302, H332 |

## SECTION 4: First aid measures

*4.1. Description of first aid measures*

**Inhalation** Rinse nose and mouth with water. Remove the person in fresh air and keep the person calm and warm. In case of respiratory distress give artificial respiration, oxygen. Seek immediate medical attention/advice.

**Skin contact** Gently wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse.
Seek immediate medical attention. If irritation persists, obtain medical assistance.

**Eye contact** Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for several minutes. Get medical attention if irritation occurs.





**Ingestion** Rinse mouth with water. Immediately give the injured a glass of milk or water. Do not induce vomiting. Let the injured rest. Immediately go to hospital (if possible show label or this information).

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

**Inhalation** Irritating to mucous membranes, nose and throat, and may cause cough. Prolonged and repeated inhalation of manganese may cause damage to the central nervous system.

**Skin contact** SKIN CONTACT: Intensive pain and severe blisters and sores. Diluted solutions can also cause severe coronary injury, however, without giving immediate pain. Sometimes pain only manifests after several hours when hydrofluoric acid penetrated into underlying tissues.

**Eye contact** EYE CONTACT: Splashes cause strong pain and corrosion. High risk of permanent visual impairment and blindness.

**Ingestion** Irritation and burning in the mouth and throat. May also cause burns with burning pain in the stomach.

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

Not applicable

## SECTION 5: Firefighting measures

*5.1. Extinguishing media*

**Suitable extinguishing media** 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** Breathing apparatus with filter of type P3.

## SECTION 6: Accidental release measures

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

Wear suitable protective gloves, goggles and protective clothing. Ensure good ventilation or wear respiratory protection. Block risk area if possible. Breathing apparatus with filter of type P3.

*6.2. Environmental precautions*

Prevent discharges into drains, ditches or streams.

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

Pick up spill mechanically. Clean without deploy dust. Avoid dry sweeping and use water or vacuum system to prevent formation of dust
Rinse the contaminated area with plenty of water. Prevent incompatible substances (see section 10) to come into contact with the product. In case of larger spillage / emissions, inform the Rescue Service.





*6.4. Reference to other sections*

Refer to section 8/13

## SECTION 7: Handling and storage

*7.1. Precautions for safe handling*

**Preventive handling precautions** Avoid direct contact or inhalation of the product. Do not eat, drink and smoke when using the product. Opportunity for eye wash and emergency shower must be in the workplace.

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

Keep the containers well sealed and well ventilated. Store at room temperature. Keep the containers standing and inaccessible to unauthorized persons. Prevent contact with incompatible substances (see section 10). Only use packages that are approved for the product. Shelf life of unopened packaging is 3 years.

*7.3. Specific end use(s)*

Not applicable

## 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.* | *EC No.* | *Exposure limit mg/m3-ppm* | | *Short-term exposure limit mg/m3-ppm* | | *Ceiling exposure limit mg/m3-ppm* | | *Remark* | *Source* | *Year* |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Quartz* | 14808-60-7 | 238-878-4 | - | - | - | - | - | - | 30 mg/m3/%SiO2+2, Total dust; 10 mg/m3/%SiO2+2, Respirable dust(quartz, tripoli) | OSHA | 2017 |
| Calcium hydroxide | 1305-62-0 | 215-137-3 | 15 | - | - | - | - | - | total dust | OSHA | 2017 |
| Calcium hydroxide | 1305-62-0 | 215-137-3 | 5 | - | - | - | - | - | respirable fraction | OSHA | 2017 |
| Titanium oxide** | 13463-67-7 | 236-675-5 | 15 | - | - | - | - | - | Total dust | OSHA | 2017 |
| Manganese oxide | 1313-13-9 | 215-202-6 | - | - | - | - | 5 | - | - | OSHA | 2017 |

*8.2. Exposure controls*

**Technical precaution measures** Keep the exposure at a low level through good ventilation and appropriate handling instructions. Mechanical ventilation or point extraction should be used. Eye shower and emergency shower shall be available at the workplace.

| | |
|---|---|
| Respiratory protection | Breathing apparatus with filter of type P3. |
| Environmental exposure controls | Prevent discharges into drains, ditches or streams. |

*Other*

| | |
|---|---|
| Protective clothing | Keep working place and protective clothing clean and dry. Check condition of protective clothing and equipment on a regular basis. |

## SECTION 9: Physical and chemical properties

*9.1. Information on basic physical and chemical properties*

| | |
|---|---|
| Appearance | Grey powder |
| Appearance, colour | Not applicable |
| Appearance, physical state | Not applicable |
| Auto-ignition temperature | Not self-igniting |
| Decomposition temperature | not determined |
| Evaporation rate | not determined |
| Explosive properties | Not explosive |
| Flammability (solid, gas) | Non-flammable |
| Flash point | Not applicable |
| Initial boiling point and boiling range | Not applicable |
| Melting point / freezing point | not determined |
| Odour | odourless |
| Odour treshold | not determined |
| Oxidising properties | Not oxidizing |
| Partition coefficient: n-octanol / water | Not applicable |
| pH value | <10 (10 g/l) |
| Relative density | Not applicable |
| Solubility | Slightly soluble |
| Upper / lower flammability or explosive limits | Not applicable |





| | |
|---|---|
| Vapour density | not determined |
| Vapour pressure | not determined |
| Viscosity | not determined |

*9.2. Other information*

Not applicable

## SECTION 10: Stability and reactivity

*10.1. Reactivity*

Not applicable

*10.2. Chemical stability*

| | |
|---|---|
| Chemical stability | Stable under normal handling and storage (see section 7). |

*10.3. Possibility of hazardous reactions*

Not applicable

*10.4. Conditions to avoid*

| | |
|---|---|
| Conditions to avoid | Formation of dust (Always mix the product in the original can to prevent formation of dust). |

*10.5. Incompatible materials*

Not applicable

*10.6. Hazardous decomposition products*

Not applicable

## SECTION 11: Toxicological information

*11.1. Information on toxicological effects*

| | |
|---|---|
| Information on toxicological effects | SKIN CONTACT: Intensive pain and severe blisters and sores. Diluted solutions can also cause severe coronary injury, however, without giving immediate pain. Sometimes pain only manifests after several hours when hydrofluoric acid penetrated into underlying tissues.<br>EYE CONTACT: Splashes cause strong pain and corrosion. High risk of permanent visual impairment and blindness.<br>INHALATION: Burns in the mouth, esophagus and throat. Fluid eruption in the lungs (lung edema) may occur after several hours up to a few days without difficulty. Prolonged and repeated contact with vapors may cause chronic respiratory tract and corrosion to the teeth.<br>INGESTION: Causes severe burns in mouth, esophagus and throat. Corrosion damage can occur already in small quantities of the product. High risk of permanent pain from scarring of edema in the esophagus or stomach. |
| Acute toxicity | Based on available data, the classification criteria are not met. |
| Skin corrosion/irritation | Based on available data, the classification criteria are not met. |
| Serious eye damage/irritation | Based on available data, the classification criteria are not met. |





| | |
|---|---|
| Respiratory/skin sensitization | Based on available data, the classification criteria are not met. |
| Germ cell mutagenicity | Based on available data, the classification criteria are not met. |
| Genotoxicity | Based on available data, the classification criteria are not met. |
| Carcinogenicity | *This product contains substance(s) that may cause cancer, which is/are classified as Carcinogenic to humans as per IARC.<br>**This product contains substance(s) that may cause cancer, which is/are classified as Possibly carcinogenic to humans as per IARC. |
| Repeated dose toxicity | Based on available data, the classification criteria are not met. |
| Reproductive toxicity | Based on available data, the classification criteria are not met. |
| STOT-single exposure | Based on available data, the classification criteria are not met. |
| STOT-repeated exposure | Based on available data, the classification criteria are not met. |
| Aspiration hazard | Based on available data, the classification criteria are not met. |
| LD50 Oral | Calcium hydroxide:LD50, oral, rat: >2000 mg/kg; Titanium dioxide: LD50, oral, rat: >10000 mg/kg |
| LD50 Dermal | Calcium hydroxide: LD50, dermal, rat: >2500 mg/kg; Titanium dioxide: LD50, dermal, rat: >2500 mg/kg |
| LC50 Inhalation | Based on available data, the classification criteria are not met. |

## SECTION 12: Ecological information

*12.1. Toxicity*

| | |
|---|---|
| Acute toxicity | No data available |
| Toxicity | Calcium hydroxide: LC50, fish, 96h: 457 mg/l, EC50, aquatic invertebrates, 48h: 49,1 mg/l, EC50, aquatic plants, 72h: 184,57 mg/l<br>Titanium dioxide: LC50, fish, 48h: >1000 mg/l (ulgdid) |
| 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 | Criteria for biodegradability are not applicable to inorganic compounds. |
| 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 | Product content is not expected to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB). |

*12.6. Other adverse effects*

| | |
|---|---|
| Other adverse effects | No other adverse effects known. |

## SECTION 13: Disposal considerations

*13.1. Waste treatment methods*

| | |
|---|---|
| Disposal considerations | Spill and residue of this product and contaminated packaging should be disposed of as hazardous waste. Waste from the product should not be allowed to contaminate soil or water, or release into the environment. Consult local authorities for information on waste management. |

## 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.
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
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)
DIRECTIVE 2008/98/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL. of 19 November 2008. on waste and repealing certain Directives.
European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste.



SAFETY DATA SHEET
*This Safety Data Sheet complies with Annex II of 830/2015 amending EC No. 1907/2006, CLP directive 1272/2008, also in accordance with ISO 11014-1 and ANSI Z400.1*
**Stainflux** Issued: 2018-01-14

**Other regulations, limitations and legal regulations**

Poland Regulations:

ACT of 25 February 2011 on the chemical substances and their mixtures(OJ # 63, poz. 322).

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).

The Act on Waste of 14 December 2012, Journal of Laws of 2013, item 21 with amendments

Act of 13th June 2013 on packaging management and packaging waste (Journal of Laws of 2013, item 888).

Regulation of the Minister of the Environment of 9 December 2014 on waste catalogue (Journal of Laws of 2014, item 1923).

Regulation of the Minister of Economy of 21 December 2005. Concerning essential requirements for personal protective equipment (Journal. Laws No. 259, item. 2173).

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).

USA Regulations :

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.)

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.

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.

International Inventories:

Australia: The substance(s) in this product is/are in compliance with the inventory requirements of Australian Inventory of Chemical Substances (AICS)

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

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*

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.

## SECTION 16: Other information

**Changes to previous revision**: This Safety Data Sheet has been revised due to modifications to Sections 1-16.



SAFETY DATA SHEET
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**Stainflux** Issued: 2018-01-14

**References to key literature and data sources**

Refer to ESAB "Welding and Cutting - Risks and Measures", F52-529 "Precautions and Safe Practices for Electric Welding and Cutting" and F2035 "Precautions and Safe Practices for Gas Welding, Cutting and Heating" available from ESAB, and to: www.esab.com

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", American Welding Society, 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: Unfallverhütungsvorschrift BGV D1, "Schweißen, Schneiden und verwandte Verfahren".

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 the information required by the CPR.

**Phrase meaning**

Acute Tox. 4 - oral - Acute toxicity, oral, hazard category 4
STOT RE 1 - Specific Target Organ Toxicity — Repeated exposure, hazard category 1
H302 - Harmful if swallowed.
H332 - Harmful if inhaled.
H372 - Causes damage to organs through prolonged or repeated exposure.

*Other*

**Additional information**

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 this product.
-request such customers to notify employees and customers for the same product hazards and safety information.

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