



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

StainClean Pickling Paste

Issued: 2018-01-14

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

1.1. Product identifier

Trade name StainClean Pickling Paste

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

Use Identified uses: Machining of Stainless and acid-proof steel

1.3. Details of the supplier of the safety data sheet

SDS created by TDS Team

Supplier ESAB AB

Street address Box 8004
402 77 Göteborg
Sweden

Telephone +46 31 509000

Email sdsrequest@esab.com

Web site www.esab.com

1.4. Emergency telephone number

Emergency phone number +46 31 509000

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

Hazard statements H272, H300, H310, H314, H330

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008

Pictogram



Signal word

Danger

Hazard statements

H272 May intensify fire; oxidiser.
H300 Fatal if swallowed.
H310 Fatal in contact with skin.
H314 Causes severe skin burns and eye damage.
H330 Fatal if inhaled.



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

StainClean Pickling Paste

Issued: 2018-01-14

Precaution statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P220 Keep/Store away from clothing/.combustible materials.
P221 Take any precaution to avoid mixing with combustibles ..
P262 Do not get in eyes, on skin, or on clothing.
P264 Wash hands thoroughly after handling.
P270 Do no eat, drink or smoke when using this product.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor//physician.
P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P302 + P352 IF ON SKIN: Wash with plenty of water/soap.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
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.
P310 Immediately call a POISON CENTER/doctor/physician.
P321 Specific treatment (see If Hexafluorine is available, use it instead of water in contact with skin or eye contact. Follow the instructions provided with Hexafluorine on this label).
P330 Rinse mouth.
P361 + P364 Take off immediately all contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.
P370 + P378 In case of fire: Use . to extinguish.
P405 Store locked up.
P501 Dispose of contents/container to to containers by lawful and appropriate disposal method.

More information

Content: nitric acid: 15-19%, hydrofluoric acid: 3-5%, sulfuric acid: 7-10%

2.3. Other hazards

The mixture does not meet the criteria for persistent, bioaccumulative and toxic substances (PBT) or very persistent and highly bioaccumulative substances (vPvB).

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical name	CAS No. EC No.	Concentration	Classification	R-phrase H-phrase
Nitric acid	7697-37-2 231-714-2	15 - 19%	- Skin Corr. 1A, Ox. Liq. 2	- H272, H314
Sulfuric acid	7664-93-9 231-639-5	7 - 10%	- Skin Corr. 1A	- H314
Hydrofluoric acid	7664-39-3 231-634-8	3 - 5%	- Skin Corr. 1A, Acute Tox. 2 - oral, Acute Tox. 1 - dermal, Acute Tox. 2 - dermal	- H300, H310, H314, H330

Substance additional information

For the full text of the H phrases mentioned in this Section, see Section 16.



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

StainClean Pickling Paste

Issued: 2018-01-14

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

Take off clothes and shoes as soon as possible. Rinse as soon as possible with hexafluorine. Avoid rinsing with water as it reduces the effect of Hexafluorine®. At prolonged exposure use calcium gluconate 2.5% gel. Repeat if necessary, treatment with calcium gluconate gel. Seek immediate medical attention. If hexafluorine or calcium gluconate gel is not available, rinse immediately with plenty of water and seek medical advice immediately.

Eye contact

Immediately rinse the eye with Hexafluorine®. Always use the entire bag contents (500 ml). Avoid rinsing with water as it reduces the effect of Hexafluorine®. Always follow the instructions provided with the product. Immediately seek ophthalmologist or go to hospital. If Hexafluorine® is not available, immediately rinse the eye with plenty of water for at least 15-30 min. Keep the eyelids wide apart during flushing. Remove any contact lenses. Immediately seek ophthalmologist and go to hospital. Continue to flush your eyes with water during transport to the hospital.

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

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.

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

INGESTION: Causes severe burns in mouth, esophagus and throat. Corrosion damage can occur already in small quantities of the product.

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

Calcium gluconate gel 2.5% precipitates fluoride and should be massaged as quickly as possible on the skin that have been in contact with the product. In case of strong exposure, additional calcium may be required, both locally and systemically. In the case of splash into eye, calcium gluconate solution may also be dropped into the eye. Take into account the risk of secondary kidney damage after ingestion.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Foam, carbon dioxide, powder or sand. Use suitable extinguishing media depending on the environment, the product is non-combustible.

5.2. Special hazards arising from the substance or mixture

Cool exposed containers with water and remove if possible from the fire. Do not inhale vapors. Heated packages may explode due to pressure rise. When contacted with some metals, hydrogen releases in small quantities that can form explosive air mixtures. Nitrous gases can be released during combustion.



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

StainClean Pickling Paste

Issued: 2018-01-14

5.3. Advice for firefighters

Special protective equipment for fire-fighters

In case of fire, use fresh air mask with gas filter type B (gray) and particle filter P2 and protective clothing.

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.

Wear safety goggles and face protection. Wear protective gloves (EN 374). Gloves must be examined before use. Use suitable glove removal technique (without touching the outside of the glove) to avoid skin contact with this product. Replace immediately punctured or soiled protective gloves. Recommended glove material: Neoprene - CR: Thickness = 0.5mm; breakthrough time = 480 minutes

Use protective clothing and boots of acid-proof material. Use respiratory protection in case of insufficient ventilation. Full face mask with gas filter type B (gray) and particle filter type P2.

6.2. Environmental precautions

Prevent discharges into drains, ditches or streams.

6.3. Methods and material for containment and cleaning up

Neutralize larger spill with quenched lime. Smaller games can be neutralized with StainWash Neutralization paste. Roll in spill with non-combustible absorbent material, such as sand. Collect spill into suitable containers and leave for disposal. 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

Handle the product carefully and avoid contamination. The product should be used at temperatures between +5 °C and +40 °C. During operation, very good ventilation or spot extraction is required. Use personal protective equipment (see section 6). 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. Calcium gluconate gel 2.5% or Hexafluorine® should be available at the workplace. Pickling products should only be handled by staff with basic training / knowledge of the health risks involved.

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. Keep the containers separate from chemicals like acids and strong bases, which could cause chemical reactions. 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



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

StainClean Pickling Paste

Issued: 2018-01-14

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/m ³ -ppm		Short-term exposure limit mg/m ³ -ppm		Remark	Source	Year
Nitric acid	7697-37-2 231-714-2	-	2	-	-	-	OSHA	2017
Hydrofluoric acid	7664-39-3 231-634-8	-	3	-	-	as F	OSHA	2017
Sulfuric acid	7664-93-9 231-639-5	1	-	-	-	-	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. Calcium gluconate gel 2.5% or Hexafluorine® should be available at the workplace. Wash hands and face before all meals and after finishing work.

Environmental exposure controls

Prevent discharges into drains, ditches or streams. Viscous gelatinous solution, colorless

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

a) Appearance	Not applicable
b) Odour	stinging
c) Odour threshold	not determined
d) pH value	<1,5 (10 g/l)
e) Melting point / freezing point	not determined
f) Initial boiling point and boiling range	Not applicable
g) Flash point	Not applicable
h) Evaporation rate	not determined
i) Flammability (solid, gas)	Non-flammable
j) Upper / lower flammability or explosive limits	Not applicable
k) Vapour pressure	not determined
l) Vapour density	not determined



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

StainClean Pickling Paste

Issued: 2018-01-14

m) Relative density	1,20 g / cm ³ (@ 20 ° C)
n) Solubility	Fully soluble and miscible
o) Partition coefficient: n-octanol / water	Not applicable
p) Auto-ignition temperature	Not self-igniting
q) Decomposition temperature	not determined
r) Viscosity	not determined
s) Explosive properties	Not explosive
t) Oxidising properties	Not oxidizing
Boiling point	cca 110 °C
Appearance	Viscous gelatinous solution, colorless

9.2. Other information

Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	The mixture consists of strong acids which may be reactive with certain substances.
------------	-------------------------------------------------------------------------------------

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Reacts violently with different types of lye. When contacted with metals, hydrogen forms which can form an explosive mixture with air.
------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------

10.4. Conditions to avoid

Conditions to avoid	Heating and direct sunlight.
---------------------	------------------------------

10.5. Incompatible materials

Incompatible materials	Bases, Metals (eg aluminum, zinc, iron, magnesium)
------------------------	----------------------------------------------------

10.6. Hazardous decomposition products

Hazardous decomposition products	The product contains nitric acid which liberates nitrous gases upon combustion.
----------------------------------	---------------------------------------------------------------------------------



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

StainClean Pickling Paste

Issued: 2018-01-14

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.

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

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.

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

Not applicable

Skin corrosion/irritation

Corrosive.

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

Not applicable

Carcinogenicity

Sulfuric acid: Sulfuric acid aerosols have been shown to cause respiratory tract cancer in epidemiological studies. However, it is not possible to indicate an exposure level at which cancer occurs. The development of cancer is unlikely to be below the levels that give effect to lung function and irritation.

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

Sulfuric acid: LD50/oral/rat = 2140 mg/kg

LC50 Inhalation

hydrofluoric acid: LC50/inhalation/1h/rat = 1310 ppm

SECTION 12: Ecological information

12.1. Toxicity

Toxicity

nitric acid: LC50 (Fish, 96 hr): 72 mg/l (Gambusia affinis)
hydrofluoric acid: LC50 (Fish, 96 hr): 51 mg/l (Oncorhynchus mykiss), EC50/48h/daphnia = 97 mg/l, EC50/96h/green algae = 43 mg/l (Scenedesmus subspicatus)
Sulfuric acid: LC50 (Fish, 96 hr): 42 mg/l (Gambusia affinis), EC50/48h/daphnia = 29 mg/l (soft water)

The acute effects of the product are predominantly a consequence of reduced pH and consequent corrosion damage.

12.2. Persistence and degradability

Persistence and degradability

Biodegradability criteria are not applicable to inorganic compounds. Protoluted in water to H⁺, NO₃⁻, F⁻ and SO₄²⁻.



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

StainClean Pickling Paste

Issued: 2018-01-14

12.3. Bioaccumulative potential

Bioaccumulative potential	Not bioaccumulative
----------------------------------	---------------------

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.
--------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Other

Waste management	Type of hazardous waste is indicated with six-digit waste code. The list of waste codes is contained in the Waste Ordinance (2011: 927) and the hazardous waste codes are marked with an asterisk (*).
-------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Waste code (EWC)	Suggestions for waste code (eg EWC code): 11 01 05 *: Acids, 15 01 10 *: Packagings containing residues of or contaminated by dangerous substances.
-------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------

SECTION 14: Transport information

14.1. UN number

UN number	2922
------------------	------

14.2. UN proper shipping name

Name	Corrosive liquid, toxic, n.o.s. (hydrofluoric acid, nitric acid)
-------------	------------------------------------------------------------------

IMDG proper shipping name	Corrosive liquid, toxic, n.o.s. (hydrofluoric acid, nitric acid)
----------------------------------	------------------------------------------------------------------

14.3. Transport hazard class(es)

ADR / RID Class	8 (6.1)
------------------------	---------

IMDG Class	8 (6.1)
-------------------	---------

ADN Class	8 (6.1)
------------------	---------

14.4. Packing group

Packing group	II
----------------------	----



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*

StainClean Pickling Paste

Issued: 2018-01-14

14.5. Environmental hazards

Environmental hazards

No

14.6. Special precautions for user

Special precautions for user

No special precautions in addition to current regulations for the transport of dangerous goods.

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*

StainClean Pickling Paste

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.

Sulphuric acid: 1.0% de minimis concentration

Nitric acid: 1.0% de minimis concentration

Hydrofluoric acid: 1.0% de minimis concentration

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

Not 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.



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*

StainClean Pickling Paste

Issued: 2018-01-14

SECTION 16: Other information

Changes to previous revision

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 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: Accident prevention regulation BGV D1, "Welding, cutting and related procedures".

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. 1 - dermal - Acute toxicity, dermal, hazard category 1
Acute Tox. 2 - dermal - Acute toxicity, dermal, hazard category 2
Acute Tox. 2 - oral - Acute toxicity, oral, hazard category 2
Ox. Liq. 2 - Oxidising liquids, hazard category 2
Skin Corr. 1A - Skin corrosion, hazard category 1A
H272 - May intensify fire; oxidiser.
H300 - Fatal if swallowed.
H310 - Fatal in contact with skin.
H314 - Causes severe skin burns and eye damage.
H330 - Fatal if inhaled.

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.

The information herein is given in good faith and based on technical data that ESAB believes to be reliable. Since the conditions of use is outside our control, we assume no liability in connection with any use of this information and no warranty, expressed or implied is given.
Contact ESAB for more information.