

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

1.1 Product identifier

TA Flux

UFI kod: PNS2-10CD-900F-208X

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

Relevant identified uses of the substance : To be applied on the root side of welds to prevent oxidation

1.3 Details of the supplier of the safety data sheet

TA Chemistry AB

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1.4 Emergency telephone number

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SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]¹⁾

Skin Irrit. 2; H315: Irritating to skin

Eye Dam. 1; H318: Causes serious eye damage.

STOT SE 3; H335: May cause respiratory irritation.

STOT RE 2; H373: May cause damage to organs through prolonged or repeated exposure

¹⁾ For an explanation of abbreviations/codes for classification in plain language, see Section 16.

2.2 Label elements

Hazard pictograms



Signal word: DANGER

Hazard statements:

H315

Causes skin irritation.

H318

Causes serious eye damage.

H335

May cause respiratory irritation.

H373

May cause damage to organs through prolonged or repeated exposure

Precautionary statements:

P260

Do not breathe dust.

P264

Wash hands thoroughly after use.

P284

In case of inadequate ventilation wear respiratory protection.

P280

Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338+P310

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Contents:

Quartz: 35-45%, Calcium hydroxide: 25-35%, Titanium dioxide: 10-20%, Manganese dioxide: 9-10%

2.3 Other hazards

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

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Name:	Identification	%	Classification (CLP)1)	Special conc. Limit, M-factor
Quartz	CAS-nr 14808-60-7 EG-nr 238-878-4	35-45	Not classified	
Quartz (respirable fine fraction)	CAS-nr 14808-60-7 EG-nr 238-878-4	0-3,6	STOT RE 1; H372	
Calcium hydroxide	CAS-nr 1305-62-0 EG-nr 215-137-3 REACH reg.nr. 01-2119475151-45	25-35	Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT SE 3; H335	
Titanium dioxide (powder, contains <1% particles with an aerodynamic diameter ≤10 µm)	CAS-nr 13463-67-7 EG-nr 236-675-5 REACH reg.nr. 01-2119489379-17	10-20	Not classified	
Trimanganese tetraoxide	CAS-nr 1317-35-7 EG-nr 215-266-5	0-2	Not classified	

1) For an explanation of codes for classification, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation	Rinse nose and mouth with water. Blow one's nose. Supply fresh air and keep victim warm and calm. Give artificial respiration or oxygen if victim is breathing irregularly or breathing has stopped. If irritation persists seek medical assistance.
Skin contact	Rinse skin with plenty of water. Remove contaminated clothing and shoes. Wash off immediately using water and soap and rinse well. If irritation persists seek medical assistance.
Eye contact	Remove any contact lenses. Rinse open eyes in running water for at least 15-30 minutes. Keep eyelids open. Obtain medical assistance immediately. Continue to rinse the eyes under transport to eye doctor.
Ingestion	Rinse the mouth with water. Do not induce vomiting. Seek medical assistance.

4.2 Most important symptoms and effects, both acute and delayed

EYE CONTACT: Dust and splash in the eyes of the solution may cause strong irritation with burning sensation, redness and possibly burns.

SKIN CONTACT: Irritating to skin. Prolonged skin contact could give blisters and wounds especially at wet skin.

INHALATION: Irritating to mucous membranes, nose and throat, and may cause cough. Prolonged exposure to respirable crystalline silica-containing dust may cause silicosis.

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

Show this safety data sheet to the on-duty doctor. Keep victim warm and calm.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Use the appropriate extinguisher depending on the environment; the product is non-flammable.

5.2 Special hazards arising from the substance or mixture

No special.

5.3 Advice for firefighters

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, eye protection and protective clothing. Keep good ventilation or use breathing apparatus with dust filter type P3. Block of the danger zone if possible.

6.2 Environmental precautions

Prevent spillage from entering sewage, ditches or public waters.

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. Collect in suitable container and send for destruction. Flush with plenty of water. At larger leakage contact rescue.

6.4 Reference to other sections

See section 1 for Emergency telephone number, section 8 for personal protection and section 13 for waste treatment methods.

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

Only use the product in a well-ventilated area and use local exhaust. Follow the handling regulations. Always mix the product in the original can to prevent formation of dust. Don't use other container/can. Use personal equipment (see section No. 8). Avoid direct contact and don't inhale dust. Do not eat, drink or smoke while handling the product. There must be an eye shower and an emergency shower available.

7.2 Conditions for safe storage, including any incompatibilities

Keep packages securely closed in a well-ventilated area. Store packages indoor at room temperature in upright position and away from incompatible materials, see section No. 10. Storage should be in a restricted area, with no access for unauthorized persons. The shelf life of an un-opened package is 3 years

7.3 Specific end use(s)

Not applicable.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits (Source: GESTIS International limit values database)

Substance:	Country	Limit value (8 hours) mg/m ³	Limit value short term mg/m ³	Remarks
Quartz	Austria	0,05 (1,2)		(1) MAK value (2) Respirable fraction
	Belgium	0,1		
	Denmark	0,3	0,6	inhalable aerosol
	Finland	0,05 (1)		respirable fraction
	Ireland	0,1		respirable fraction
	France	0,1		respirable fraction
	Hungary	0,15		respirable fraction
	Norway	0,3		Total dust
		0,1 (2)		respirable fraction
	Poland	0,1		respirable fraction
	Spain	0,05		respirable fraction
	Sweden	0,1		respirable fraction
	Switzerland	0,15		respirable aerosol
	Netherlands	0,075		respirable dust
	Calcium hydroxide	Austria	1 (1)	4 (1,2)
Belgium		1 (1)	4 (1,2)	(1) Respirable fraction (2) 15 minutes average value
Denmark		1	2 (1)	15 minutes average value
European Union		1	4 (1,2)	(1) Respirable fraction (2) 15 minutes average value
Finland		1 (1)	4 (1,2)	(1) 15 minutes average value
France		1 (1)	4 (1,2)	(1) Respirable fraction (2) 15 minutes average value
Germany(AGS)		1 (1)	2 (1,2)	(1) Respirable fraction (2) 15 minutes average value
Germany(DFG)		1 (1)	2(1,2)	(1) Respirable fraction (2) 15 minutes average value
Hungary		5		
Ireland		1 (1)	4 (1,2)	(1) Respirable fraction (2) 15 minutes average value
Italy		1 (1)	4 (1,2)	(1) Respirable fraction (2) 15 minutes average value
Latvia		1 (1)	4 (1,2)	(1) Respirable fraction (2) 15 minutes average value
Norway		1 (1)	4 (1,2)	(1) Respirable fraction (2) 15 minutes average value
Romania		1 (1)	4 (1,2)	(1) Respirable fraction (2) 15 minutes average value
Spain		1	4 (1)	(1) 15 minutes average value
Sweden		1 (1)	4 (1,2)	(1) Respirable fraction (2) 15 minutes average value
Switzerland		1 (1)	4 (1,2)	(1) Respirable fraction (2) 15 minutes average value
United Kingdom		5 (1) 1 (2)		(1) Inhalable fraction (2) Respirable fraction
Titanium dioxide		Belgium	10	
	Denmark	6	12	total dust
	France	11		inhalable aerosol
	Germany (DFG)	0,3 (1,2)	2,4 (1,2,3)	(1) Respirable fraction, except ultrafine particles (2) Multiplied by the material density (3) 15 minutes average value
	Ireland	10 (1)		(1) Inhalable fraction
	Latvia	10		
	Norway	5		
	Poland	10 (1)		(1) Inhalable fraction
	Romania	10	15 (1)	(1) 15 minutes average value
	Spain	10 (1)		(1) Inhalable fraction
	Sweden	5		inhalable aerosol
	Switzerland	3		inhalable aerosol
	United Kingdom	10 4		inhalable aerosol respirable aerosol
	Trimanganese tetraoxide	Austria	0,2 (1) 0,05 (2)	1,6 (1,3) 0,16 (2,3)
Finland		0,2 (1,2)		(1) calculated as Mn (2) Inhalable fraction
		0,02 (1,2)		(3) Respirable fraction
France		1		
Ireland		0,5		
Sweden		0,2 (1) 0,05 (2)		(1) Inhalable fraction (2) Respirable fraction

Threshold limit values – ACGIH

	Quartz	Calcium hydroxide	Titanium dioxide	Manganese dioxide
TLV	0,025 mg/m ³	5 mg/m ³	10 mg/m ³	0.2 mg/m ³

8.2 Exposure controls

Appropriate technical control measures.

Keep exposure at a low level through good ventilation and appropriate local extraction as well as the relevant handling regulations. Always mix the product in the original can to prevent formation of dust. Eye wash and safety shower facilities must be available at the workplace. Wash your hands and face before all meals and after work

Individual protection measures, such as personal protective equipment:

Eye protection / Face protection

Use eye and skin protection.

Hand protection

Use protective gloves (EN 374).

Gloves must be inspected prior to use.

Use a suitable glove removal technique (without touching the outer surface of the glove) to avoid skin contact with this product.

Replace punctured or contaminated protective gloves.

Recommended glove material: Nitrile

Skin protection

Wear protective clothing.

Respiratory protection

Wear respiratory protective equipment in the event of dust formation.

Breathing apparatus with dust filter type P3

Environmental protection measures

Prevent spillage from entering sewage or public waters.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Grey powder	Vapour pressure:	Not determined
Odour:	Odourless	Vapour density:	Not determined
Odour threshold:	Not determined	Relative density:	Not determined
pH-value:	<10 (10 g/l)	Solubility:	Slightly soluble
Melting/freezing point:	Not determined	Partition coefficient (n-octanol/water):	Not determined
Boiling point:	Not determined	Self-ignition temperature:	Not self-igniting
Flash-point:	Not determined	Decomposition temperature:	Not determined
Evaporation rate:	Not determined	Viscosity:	Not determined
Flammability:	Non-flammable	Explosive properties:	Not explosive
Upper/lower flammability or explosive limits:	Not relevant	Oxidizing properties:	Not oxidizing

9.2 Other information

Information on hazard classes for physical danger: No known

Other safety characteristics: No known

SECTION 10: Stability and reactivity

10.1 Reactivity

None known

10.2 Chemical stability

Stable under normal conditions (see section 7).

10.3 Possibility of hazardous reactions

None known

10.4 Conditions to avoid

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

10.5 Incompatible materials

None known

10.6 Hazardous decomposition products

None known

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Route of exposure	Effects
Eye Contact	Dust and splash of solution gives strong irritation, redness and pain. Risk for corrosive damage.
Skin contact	Gives irritation. Prolonged skin contact could give blisters and wounds especially at wet skin.
Inhalation	Inhalation irritates the mucous membranes and may cause burning in the nose and throat as well as coughing. The product may be dangerous by inhalation. Prolonged and repeated inhalation of respirable dust of crystalline quartz can cause pulmonary fibrosis (silicosis).
Ingestion	Ingestion gives corrosive damage with burning pain in mouth and throat, possibly severe general effect and damage to the stomach.

Acute toxicity: Calcium hydroxide: LD₅₀, oral, rat: >2000 mg/kg
LD₅₀, dermal, rat: >2500 mg/kg

Corrosive/Irritating: Irritates the skin.

Serious eye damage/irritation: Risk of serious damage to eyes.

Respiratory or skin sensitization: Based on available data the classification criteria have not been fulfilled.

Germ cell mutagenicity: Based on available data the classification criteria have not been fulfilled.

Carcinogenicity: Based on available data, the classification criteria are not fulfilled.
Quartz: Increased risk of lung cancer can only be demonstrated during high occupational exposure to inhalable crystalline silicon. The increased risk of lung cancer is limited to subjects with silicosis.

Reproductive toxicity: Based on available data the classification criteria have not been fulfilled.

STOT-single exposure: May cause irritation to the respiratory system.

STOT-repeated exposure: This product contains quartz (fine fraction) as an impurity and is therefore classified as STOT RE2 in accordance with the criteria defined in Regulation (EC) 1272/2008. Prolonged and / or massive exposure to fine dust from respirable crystalline quartz can cause silicosis, a nodular pulmonary fibrosis caused by fine respirable particles of crystalline quartz in the lungs. There is a collection of evidence that increased cancer risk is limited to people who already are suffers from silicosis. Occupational safety against silicosis must be guaranteed by respecting the existing statutory limit values for exposure in the workplace and by implementing additional risk management measures if necessary.

Aspiration hazard. Based on available data the classification criteria have not been fulfilled.

11.2 Information on other hazards: No other hazards known.

SECTION 12: Ecological information

12.1 Toxicity

Calcium hydroxide:

LC50, fish, freshwater, 96 h: 50.6 mg / l, LC50, fish, seawater, 96 h: 457 mg / l,
 EC50, invertebrates, freshwater 48 h: 49.1 mg / l, LC50, invertebrates, seawater, 96 h: 158 mg / l,
 NOEC, invertebrates, seawater, 14 d: 32 mg / l, EC50, algae, freshwater 72 h: 184.57 mg / l, NOEC,
 algae, fresh water, 72 h: 48 mg / l,
 EC10 / LC10, NOEC, soil, macro-organisms: 2,000 mg / kg soil dry weight,
 EC10 / LC10, NOEC, soil, microorganisms: 12,000 mg / kg soil dry weight,
 NOEC, land plants, 21 d: 1,080 mg / kg

12.2 Persistence and degradability

Criteria for biodegradability are not applicable to inorganic compounds.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

The contents of the product do are not expected to be persistent, bioaccumulative and toxic substances (PBT) or very persistent and very bioaccumulative substances (vPvB).

12.6 Endocrine disrupting properties

No data available.

12.7 Other adverse effects

No other adverse effects are known.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Spillages and residues of this product and contaminated packaging must be disposed of as hazardous waste. Do not discharge into drains or water courses or into the environment. Consult local authorities for disposal information.

SECTION 14: Transport information

14.1 UN number	Not classified as dangerous goods
14.2 UN proper shipping name	Not classified as dangerous goods
14.3 Transport hazard class(es)	Not classified as dangerous goods
14.4 Packing group	Not classified as dangerous goods
14.5 Environmental hazards	Not classified as dangerous goods
14.6 Special precautions for user	Not relevant
14.7 Transport in bulk by sea according to IMO instruments:	Not relevant

SECTION 15: Regulatory information

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

Medical supervision is required for the handling of quartz. See further regulations on medical checks.

15.2 Chemical safety assessment

Not available.

SECTION 16: Other information**Codes for classification in sections 2 and 3:**

Eye Dam 1: Serious eye damage category 1, Skin Irrit. 2: Irritant to skin category 2, STOT SE 3: Specific organ toxicity - single exposure category 3, STOT RE 1: Specific organ toxicity - repeated exposure category 1, STOT RE 2: Specific organ toxicity - repeated exposure category 2

H315: Irritating to skin, H318: Causes serious eye damage, H335: May cause respiratory irritation, H372: Causes damage to organs through prolonged or repeated exposure, H373: May cause damage to organs through prolonged or repeated exposure

Changes following the latest review:

Changes in Section: 1.1, 1.2, 2.1, 2.2, 4.2, 8.1, 9.2, 11.1, 11.2, 12.1, 12.6, 12.7, 13.1, 14.1, 15.1, 16.

The product is classified and labeled in accordance with Regulation (EC) No 1272/2008 (CLP).

This MSDS replaces all previous versions.

Other information:

TA Chemistry AB requests the users of this product to study this Safety Data Sheet (S.D.S.) 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 S.D.S and any product hazards/safety information.
- furnish this same information to each of its customers for the 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 TA Chemistry AB 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 TA Chemistry AB for more information.