

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/24/2022

Reviewed on 03/24/2022

1 Identification

- **Product identifier**
- **Trade name:** **UTP 7018**
- **Application of the substance / the mixture** Stick electrodes for welding
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
voestalpine Bohler Welding México, S.A. de C.V.
Av. Henry Ford No. 16 Fracc. Ind. San Nicolás,
C.P. 54030, Tlalnepantla Edo. de México, México.
- **Information department:**
R&D Engineer
teresita.ordaz@voestalpine.com
- **Emergency telephone number:** During normal opening times: +52/55/53213070

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Carc. 1A H350 May cause cancer. Route of exposure: Inhalation.

- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**
Quartz (SiO₂)
titanium dioxide
- **Hazard statements**
H350 May cause cancer. Route of exposure: Inhalation.
- **Precautionary statements**
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

471-34-1	calcium carbonate		>25–≤50%
7789-75-5	calcium fluoride		>25–≤50%
14808-60-7	Quartz (SiO ₂)	☠ Carc. 1A, H350	>2.5–≤10%
13463-67-7	titanium dioxide	☠ Carc. 2, H351	>2.5–≤10%
7439-96-5	manganese		>2.5–≤10%
7440-21-3	silicon	☠ Flam. Sol. 2, H228	0–≤2.5%

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

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5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

- **PAC-1:**

471-34-1	calcium carbonate	45 mg/m ³
7789-75-5	calcium fluoride	15 mg/m ³
7439-89-6	iron	3.2 mg/m ³
14808-60-7	Quartz (SiO ₂)	0.075 mg/m ³
13463-67-7	titanium dioxide	30 mg/m ³
7439-96-5	manganese	3 mg/m ³
7440-21-3	silicon	45 mg/m ³
7440-44-0	carbon	6 mg/m ³
1344-28-1	aluminium oxide	15 mg/m ³
1309-37-1	diiron trioxide	15 mg/m ³

- **PAC-2:**

471-34-1	calcium carbonate	210 mg/m ³
7789-75-5	calcium fluoride	170 mg/m ³
7439-89-6	iron	35 mg/m ³
14808-60-7	Quartz (SiO ₂)	33 mg/m ³
13463-67-7	titanium dioxide	330 mg/m ³
7439-96-5	manganese	5 mg/m ³
7440-21-3	silicon	100 mg/m ³
7440-44-0	carbon	330 mg/m ³
1344-28-1	aluminium oxide	170 mg/m ³

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1309-37-1	diiron trioxide	360 mg/m ³
· PAC-3:		
471-34-1	calcium carbonate	1,300 mg/m ³
7789-75-5	calcium fluoride	1,000 mg/m ³
7439-89-6	iron	150 mg/m ³
14808-60-7	Quartz (SiO ₂)	200 mg/m ³
13463-67-7	titanium dioxide	2,000 mg/m ³
7439-96-5	manganese	1,800 mg/m ³
7440-21-3	silicon	630 mg/m ³
7440-44-0	carbon	2,000 mg/m ³
1344-28-1	aluminium oxide	990 mg/m ³
1309-37-1	diiron trioxide	2,200 mg/m ³

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
*Ensure good ventilation/exhaustion at the workplace.
 Open and handle receptacle with care.*
- **Information about protection against explosions and fires:**
Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** *No special requirements.*
- **Information about storage in one common storage facility:** *Not required.*
- **Further information about storage conditions:** *Keep receptacle tightly sealed.*
- **Specific end use(s)** *No further relevant information available.*

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** *No further data; see item 7.*
- **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

471-34-1 calcium carbonate	
PEL	Long-term value: 15* 5** mg/m ³ *total dust **respirable fraction
REL	Long-term value: 10* 5** mg/m ³ *total dust **respirable fraction
TLV	TLV withdrawn

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7789-75-5 calcium fluoride

PEL Long-term value: 2.5 mg/m³
as F
REL Long-term value: 2.5 mg/m³
as F
TLV Long-term value: 2.5 mg/m³
as F, A4; BEI

14808-60-7 Quartz (SiO₂)

PEL Long-term value: 0.05* mg/m³
*resp. dust; 30mg/m³/%SiO₂+2
REL Long-term value: 0.05* mg/m³
*respirable dust; See Pocket Guide App. A
TLV Long-term value: 0.025* mg/m³
*respirable particulate matter, A2

13463-67-7 titanium dioxide

PEL Long-term value: 15* mg/m³
*total dust
REL See Pocket Guide App. A
TLV Long-term value: (10) NIC-0.2* NIC-2.5** mg/m³
NIC: resp. fraction, *nanoscale, **finescale, A3

7439-96-5 manganese

PEL Ceiling limit value: 5 mg/m³
as Mn
REL Short-term value: 3 mg/m³
Long-term value: 1 mg/m³
fume, as Mn
TLV Long-term value: 0.02* 0.1** mg/m³
as Mn; A4, *respirable **inhalable fraction

7440-21-3 silicon

PEL Long-term value: 15* 5** mg/m³
*total dust **respirable fraction
REL Long-term value: 10* 5** mg/m³
*total dust **respirable fraction
TLV TLV withdrawn

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· **Ingredients with biological limit values:**

7789-75-5 calcium fluoride

BEI	2 mg/L Medium: urine Time: prior to shift Parameter: Fluoride (background, nonspecific)
	3 mg/L Medium: urine Time: end of shift Parameter: Fluoride (background, nonspecific)

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Store protective clothing separately.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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· Eye protection:



Tightly sealed goggles

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

· Form:	Solid
· Color:	According to product specification
· Odor:	Characteristic
· Odor threshold:	Not determined.

· pH-value: Not applicable.

· Change in condition

· Melting point/Melting range:	Undetermined.
· Boiling point/Boiling range:	1,962 °C (35.562 °F)

· Flash point: Not applicable.

· Flammability (solid, gaseous): Not determined.

· Decomposition temperature: Not determined.

· Auto igniting: Product is not selfigniting.

· Danger of explosion: Product does not present an explosion hazard.

· Explosion limits:

· Lower:	Not determined.
· Upper:	Not determined.

· Vapor pressure: Not applicable.

· Density:	Not determined.
· Relative density	Not determined.
· Vapor density	Not applicable.
· Evaporation rate	Not applicable.

· Solubility in / Miscibility with Water:

Insoluble.

· Partition coefficient (n-octanol/water): Not determined.

· Viscosity:

· Dynamic:	Not applicable.
· Kinematic:	Not applicable.

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- | | |
|--|--|
| · Solvent content:
VOC content: | 0.00 % |
| · Other information | No further relevant information available. |

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

471-34-1 calcium carbonate

Oral	LD50	6,450 mg/kg (rat)
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7789-75-5 calcium fluoride

Oral	LD50	4,250 mg/kg (rat)
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13463-67-7 titanium dioxide

Oral	LD50	>20,000 mg/kg (rat)
Dermal	LD50	>10,000 mg/kg (rabbit)
Inhalative	LC50/4 h	>6.82 mg/l (rat)

7439-96-5 manganese

Oral	LD50	9,000 mg/kg (rat)
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7440-21-3 silicon

Oral	LD50	3,160 mg/kg (rat)
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- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:

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· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

7789-75-5	calcium fluoride	3
14808-60-7	Quartz (SiO ₂)	1
13463-67-7	titanium dioxide	2B
1309-37-1	diiron trioxide	3

· **NTP (National Toxicology Program)**

14808-60-7	Quartz (SiO ₂)	K
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· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
 Water hazard class 2 (Self-assessment): hazardous for water
 Do not allow product to reach ground water, water course or sewage system.
 Danger to drinking water if even small quantities leak into the ground.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
 Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

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14 Transport information

· UN-Number	<i>not regulated</i>
· DOT, ADR, ADN, IMDG, IATA	<i>not regulated</i>
· UN proper shipping name	<i>not regulated</i>
· DOT, ADR, ADN, IMDG, IATA	<i>not regulated</i>
· Transport hazard class(es)	<i>Not applicable.</i>
· DOT, ADN, IMDG, IATA	<i>not regulated</i>
· Class	<i>not regulated</i>
· Packing group	<i>not regulated</i>
· DOT, IMDG, IATA	<i>not regulated</i>
· Environmental hazards:	<i>Not applicable.</i>
· Special precautions for user	<i>Not applicable.</i>
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	<i>Not applicable.</i>
· Transport/Additional information:	<i>Not dangerous according to the above specifications.</i>
· UN "Model Regulation":	<i>not regulated</i>

15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture	
· Sara	
· Section 355 (extremely hazardous substances):	
<i>None of the ingredients is listed.</i>	
· Section 313 (Specific toxic chemical listings):	
7439-96-5	manganese
1344-28-1	aluminium oxide
· TSCA (Toxic Substances Control Act):	
<i>All components have the value ACTIVE.</i>	
· Hazardous Air Pollutants	
7439-96-5	manganese
· Proposition 65	
· Chemicals known to cause cancer:	
14808-60-7	Quartz (SiO ₂)
13463-67-7	titanium dioxide
· Chemicals known to cause reproductive toxicity for females:	
<i>None of the ingredients is listed.</i>	

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· **Chemicals known to cause reproductive toxicity for males:**
None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**
None of the ingredients is listed.

· **Carcinogenic categories**

· EPA (Environmental Protection Agency)	
7439-96-5	manganese

D

· **TLV (Threshold Limit Value)**

7789-75-5	calcium fluoride	A4
14808-60-7	Quartz (SiO ₂)	A2
13463-67-7	titanium dioxide	A4
1344-28-1	aluminium oxide	A4
1309-37-1	diiron trioxide	A4

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

14808-60-7	Quartz (SiO ₂)
13463-67-7	titanium dioxide

· **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS08

· **Signal word** Danger

· **Hazard-determining components of labeling:**
Quartz (SiO₂)
titanium dioxide

· **Hazard statements**
H350 May cause cancer. Route of exposure: Inhalation.

· **Precautionary statements**
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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- **National regulations:**
- **Information about limitation of use:**
Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.
- **Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.*

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** *Product safety department.*
- **Contact:** *R&D department*
- **Date of preparation / last revision** *03/24/2022 / -*
- **Abbreviations and acronyms:**
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
BEI: Biological Exposure Limit
Flam. Sol. 2: Flammable solids – Category 2
Carc. 1A: Carcinogenicity – Category 1A
Carc. 2: Carcinogenicity – Category 2