HS-Fe6

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015) & OSHA Hazard Communication Standard 29 CFR 1910.1200 (HazCom 2012)
Issue date: 5/1/2024 Version: 1.0

SECTION 1: Identification

1.1. Product identifier

Product form : Article
Product name : HS-Fe6

1.2. Recommended use and restrictions on use

Recommended use : SMAW (Shielded Metal Arc Welding)

1.3. Supplier

Manufacturer
PrJSC Plasmatec
18, Pravednykiv svitu Street
Vinnytsia, 21036
Ukraine
T 38(067)433-54-64, 38(0432)55-49-71
quality@plasmatec.com.ua

Supplier
Monolith Bison Inc
#204, 40 Elizabeth Street
Okotoks, AB, T1S 1B3
Canada
T +1 (368) 997-9960
sales@monolith-bison.ca

1.4. Emergency telephone number

Emergency number : Europe: +38 (067) 433-1936; North America: +1 (368) 997-8889

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Classification (GHS CA/US)

Skin corrosion/irritation Category 2	Causes skin irritation
Serious eye damage/eye irritation Category 2A	Causes serious eye irritation
Specific target organ toxicity (repeated exposure) Category 1	Causes damage to organs through prolonged or repeated exposure
Combustible Dust	May form combustible dust concentrations in air

2.2. GHS Label elements, including precautionary statements

GHS CA/US labeling

Hazard pictograms (GHS CA/US) :

Signal word (GHS CA/US) : Danger

Hazard statements (GHS CA/US) : Causes skin irritation
Causes serious eye irritation
Causes damage to organs through prolonged or repeated exposure
May form combustible dust concentrations in air

Precautionary statements (GHS CA/US) : Do not breathe dust.
Wash hands, forearms and face thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves, protective clothing, eye protection, face protection.
Get medical advice or attention if you feel unwell.
IF ON SKIN: Wash with plenty of water.
Take off contaminated clothing and wash it before reuse.
If skin irritation occurs: Get medical advice or attention.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice or attention.
Specific treatment (see supplemental first aid instruction on this label).
Dispose of contents and container to hazardous or special waste collection point, in accordance with local, regional, national or international regulation.

Supplementary information : Under GHS, the product is classified as non-hazardous in its solid form. However, certain processes such as cutting, milling, grinding and welding could result in some hazardous material being emitted.

The classification information is for the hazardous elements which may be emitted during these processes.

2.3. Other hazards

Other hazards which do not result in classification : When this product is used in welding, the most important hazards are welding fumes, heat, radiation and electric shock.
Electrical shock can kill. Arc rays can injure eyes and burn skin. Welding arcs and sparks can ignite combustibles and flammable materials. Overexposure to welding fumes and gases can be hazardous.

2.4. Unknown acute toxicity (GHS CA/US)

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Chromium alloy, base, Cr,C,Fe,N,Si	CAS-No.: 11114-46-8	15 – 25
Carbonic acid, calcium salt (1:1)	CAS-No.: 471-34-1	2 – 10
Manganese	CAS-No.: 7439-96-5	0.1 – 5
Potassium silicate	CAS-No.: 1312-76-1	0.1 – 5
Silicon	CAS-No.: 7440-21-3	0.1 – 3

Comments : The concentration ranges are provided due to batch-to-batch variability.

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : In solid form, not a normal route of exposure. However during further processing (welding, grinding, burning, etc.): Call a physician if symptoms develop or persist.

First-aid measures after skin contact : For skin burns from arc radiation, immediately flush with cold water. Get medical attention for burns or irritations that persist. For reddened or blistered skin, or thermal burns, obtain medical assistance immediately.

First-aid measures after eye contact : Arc rays can injure eyes. For radiation burns due to arc flash, obtain medical attention IMMEDIATELY. If dust or fumes get in eyes: Rinse cautiously with water for several minutes. Call a physician immediately.

First-aid measures after ingestion : Avoid eating and drinking when in contact with fluxes, metal fume or powder which can cause ingestion of particulates. Do not induce vomiting. If vomiting occurs have person lean forward. Never give anything by mouth to an unconscious person. Call a poison center or a doctor if you feel unwell.

First-aid measures general : IF exposed or concerned: Get medical advice or attention. If you feel unwell, seek medical advice (show the label where possible). Medical personnel should be made aware of substance(s) involved and take measures for self protection. Show this safety data sheet to the doctor in attendance. Avoid contact with skin and eyes. Keep out of the reach of children.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation : Short term exposure to fumes and gases from welding and other processes may result in metal fume fever, dizziness, nausea or dryness or irritation in the throat, nose or eyes. These emissions might also exacerbate pre-existing respiratory conditions like asthma or emphysema.

Long term exposure to fumes and gases could result in conditions such as siderosis (iron deposits in the lungs), impacts on the central nervous system effects, bronchitis and other pulmonary effects.

Symptoms/effects after skin contact : Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin. May cause an allergic skin reaction.

Symptoms/effects after eye contact : Causes serious eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Symptoms/effects after ingestion : May cause stomach distress, nausea or vomiting.

4.3. Immediate medical attention and special treatment, if necessary

Other medical advice or treatment : Treat symptomatically. Symptoms may be delayed.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media : Treat for surrounding material.

5.2. Unsuitable extinguishing media

Unsuitable extinguishing media : Do not use a water jet since it may cause the fire to spread.

5.3. Specific hazards arising from the hazardous product

Fire hazard : May form combustible dust concentrations in air. During fire, gases hazardous to health may be formed. In case of fire or explosion do not breathe fumes. As shipped, this product is nonflammable.

Explosion hazard : Avoid generating dust; fine dust dispersed in air in sufficient concentrations and in the presence of an ignition source is a potential dust explosion hazard. Welding arcs and sparks can ignite combustible and flammable materials. During fire, gases hazardous to health may be formed.

Hazardous decomposition products in case of fire : May include and are not limited to: oxides of carbon. irritating gases. Toxic fumes.

5.4. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Move containers from fire area if it can be done without personal risk.

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Keep unnecessary personnel away. For personal protection, see section 8 of the SDS. In the event of a significant spillage : Notify authorities if product enters sewers or public waters.

6.2. Methods and materials for containment and cleaning up

Methods for cleaning up : Pick up spilled material and collect it in a suitable container for disposal. . Take up mechanically (sweeping, shoveling) and collect in suitable container for disposal. Clean contaminated surfaces with an excess of water. Minimize generation of dust.

6.3. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection"

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with skin and eyes. Do not breathe dust. Do not taste or swallow. Avoid dust formation. Ensure good ventilation of the work station. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Wear personal protective equipment. Floors, walls and other surfaces in the hazard area must be cleaned regularly.

Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Take off contaminated clothing and wash it before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep out of reach of children. Store tightly closed in a dry, cool and well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

Storage area : Store away from heat.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Carbonic acid, calcium salt (1:1) (471-34-1)	
Canada (Alberta) - Occupational Exposure Limits	
OEL TWA	10 mg/m³
Notations and remarks	Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required.
Regulatory reference	Alberta Regulation 191/2021
Canada (Quebec) - Occupational Exposure Limits	
VEMP (OEL TWAEV)	10 mg/m³ (total dust)
Regulatory reference	S-2.1, r. 13 - Regulation respecting occupational health and safety
Canada (Nunavut) - Occupational Exposure Limits	
OEL TWA	10 mg/m³ (Limestone)
OEL STEL	20 mg/m³ (Limestone)
Regulatory reference	Occupational Health and Safety Regulations, Nu Reg 003-2016 (Amendment R-044-2021)
Canada (Northwest Territories) - Occupational Exposure Limits	
OEL TWA	10 mg/m³ (Limestone)
OEL STEL	20 mg/m³ (Limestone)

Carbonic acid, calcium salt (1:1) (471-34-1)	
Regulatory reference	Occupation Health and Safety Regulations R-039-2015 (R-013-2020)
Canada (Saskatchewan) - Occupational Exposure Limits	
OEL TWA	10 mg/m³ (Limestone)
OEL STEL	20 mg/m³ (Limestone)
Regulatory reference	The Occupational Health and Safety Regulations, 2020. Chapter S-15.1 Reg 10
Canada (Yukon) - Occupational Exposure Limits	
OEL TWA	30 mppcf 10 mg/m³
OEL STEL	20 mg/m³
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL TWA	10 mg/m³ (total dust) 5 mg/m³ (respirable dust)

Manganese (7439-96-5)	
Canada (Alberta) - Occupational Exposure Limits	
OEL TWA	0.2 mg/m³
Regulatory reference	Alberta Regulation 191/2021
Canada (Quebec) - Occupational Exposure Limits	
VEMP (OEL TWAEV)	0.2 mg/m³ (total dust and fume)
Regulatory reference	S-2.1, r. 13 - Regulation respecting occupational health and safety
Canada (British Columbia) - Occupational Exposure Limits	
OEL TWA	0.2 mg/m³ (total) 0.02 mg/m³ (respirable)
Notations and remarks	R (Adverse reproductive effect)
Regulatory reference	OHS Guidelines Part 5: Chemical Agents and Biological Agents (WorkSafe BC)
Canada (Manitoba) - Occupational Exposure Limits	
OEL TWA	0.02 mg/m³ (respirable particulate matter) 0.1 mg/m³ (inhalable particulate matter)
Notations and remarks	TLV® Basis: CNS impair. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2024
Canada (New Brunswick) - Occupational Exposure Limits	
OEL TWA	0.02 mg/m³ (respirable fraction) 0.1 mg/m³ (inhalable fraction)
Notations and remarks	CNS impair; A4
Canada (Newfoundland and Labrador) - Occupational Exposure Limits	
OEL TWA	0.02 mg/m³ (respirable particulate matter) 0.1 mg/m³ (inhalable particulate matter)
Notations and remarks	TLV® Basis: CNS impair. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2024

Manganese (7439-96-5)	
Canada (Nova Scotia) - Occupational Exposure Limits	
OEL TWA	0.02 mg/m³ (respirable particulate matter) 0.1 mg/m³ (inhalable particulate matter)
Notations and remarks	TLV® Basis: CNS impair. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2024
Canada (Nunavut) - Occupational Exposure Limits	
OEL TWA	0.2 mg/m³
OEL STEL	0.6 mg/m³
Regulatory reference	Occupational Health and Safety Regulations, Nu Reg 003-2016 (Amendment R-044-2021)
Canada (Northwest Territories) - Occupational Exposure Limits	
OEL TWA	0.2 mg/m³
OEL STEL	0.6 mg/m³
Regulatory reference	Occupation Health and Safety Regulations R-039-2015 (R-013-2020)
Canada (Ontario) - Occupational Exposure Limits	
OEL TWA	0.2 mg/m³
Regulatory reference	Ontario Occuational Exposure Limits under Regulation 833
Canada (Prince Edward Island) - Occupational Exposure Limits	
OEL TWA	0.02 mg/m³ (respirable particulate matter) 0.1 mg/m³ (inhalable particulate matter)
Notations and remarks	TLV® Basis: CNS impair. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2024
Canada (Saskatchewan) - Occupational Exposure Limits	
OEL TWA	0.2 mg/m³
OEL STEL	0.6 mg/m³
Regulatory reference	The Occupational Health and Safety Regulations, 2020. Chapter S-15.1 Reg 10
Canada (Yukon) - Occupational Exposure Limits	
OEL C	5 mg/m³
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	0.02 mg/m³ (respirable particulate matter) 0.1 mg/m³ (inhalable particulate matter)
Remark (ACGIH)	TLV® Basis: CNS impair. Notations: A4 (Not classifiable as a Human Carcinogen)
ACGIH chemical category	Not Classifiable as a Human Carcinogen
Regulatory reference	ACGIH 2024
USA - OSHA - Occupational Exposure Limits	
OSHA PEL C	5 mg/m³ (fume)
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
USA - IDLH - Occupational Exposure Limits	
IDLH	500 mg/m³

Manganese (7439-96-5)	
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL TWA	1 mg/m³ (fume)
NIOSH REL STEL	3 mg/m³

Silicon (7440-21-3)	
Canada (Quebec) - Occupational Exposure Limits	
VEMP (OEL TWAEV)	10 mg/m³ (containing no Asbestos and <1% Crystalline silica-total dust)
Notations and remarks	Note 1: The standard corresponds to dust containing no asbestos and the percentage in crystalline silica is less than 1%
Regulatory reference	S-2.1, r. 13 - Regulation respecting occupational health and safety
Canada (British Columbia) - Occupational Exposure Limits	
OEL TWA	10 mg/m³ (total dust) 3 mg/m³ (respirable fraction)
Regulatory reference	OHS Guidelines Part 5: Chemical Agents and Biological Agents (WorkSafe BC)
Canada (Nunavut) - Occupational Exposure Limits	
OEL TWA	10 mg/m³
OEL STEL	20 mg/m³
Regulatory reference	Occupational Health and Safety Regulations, Nu Reg 003-2016 (Amendment R-044-2021)
Canada (Northwest Territories) - Occupational Exposure Limits	
OEL TWA	10 mg/m³
OEL STEL	20 mg/m³
Regulatory reference	Occupation Health and Safety Regulations R-039-2015 (R-013-2020)
Canada (Saskatchewan) - Occupational Exposure Limits	
OEL TWA	10 mg/m³
OEL STEL	20 mg/m³
Regulatory reference	The Occupational Health and Safety Regulations, 2020. Chapter S-15.1 Reg 10
Canada (Yukon) - Occupational Exposure Limits	
OEL TWA	30 mppcf 10 mg/m³
OEL STEL	20 mg/m³
USA - OSHA - Occupational Exposure Limits	
OSHA PEL TWA [1]	15 mg/m³ (total dust) 5 mg/m³ (respirable fraction)
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL TWA	10 mg/m³ (total dust) 5 mg/m³ (respirable dust)

8.2. Appropriate engineering controls

Appropriate engineering controls	:	Ensure good ventilation of the work station. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
Environmental exposure controls	:	Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:
Avoid all unnecessary exposure.

Hand protection:
Wear gauntlet-type cuff leather gloves or protective sleeves of similar material, to protect wrists and forearms. Leather is a good electrical insulator if kept dry.

Eye protection:
Wear a welder's face shield to protect your face from radiation and flying particles. Wear a fire-resistant skull cap or balaclava hood under your helmet to protect your head from burns and UV radiation.

Skin and body protection:
Wear high-top boots fully laced to prevent sparks from entering into the boots. Use fire-resistant boot protectors or spats strapped around the pant legs and boot tops, to prevent sparks from bouncing in the top of the boots. Wear layers of clothing. To prevent sweating, avoid overdressing in cold weather. Sweaty clothes cause rapid heat loss. Leather welding jackets are not very breathable and can make you sweat if you are overdressed.

Respiratory protection:
Use respiratory protection. Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. Respirator should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134), CAN/CSA-Z94.4 and ANSI's standard for respiratory protection (Z88.2).

Thermal hazard protection:
Using a shield can help keep any sparks spray away from your clothing. Wear leather aprons to protect your chest and lap from sparks when standing or sitting.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Solid
Appearance	:	Steel rod with extruded flux coating.
Color	:	No data available
Odor	:	No data available
Odor threshold	:	No data available
pH	:	No data available
Relative evaporation rate (butyl acetate=1)	:	No data available
Relative evaporation rate (ether=1)	:	No data available
Melting point	:	No data available

Freezing point	:	Not applicable
Boiling point	:	No data available
Flash point	:	Not applicable
Auto-ignition temperature	:	Not applicable
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	No data available
Vapor pressure	:	No data available
Relative vapor density at 20°C	:	No data available
Relative density	:	No data available
Solubility	:	No data available
Partition coefficient n-octanol/water (Log Pow)	:	No data available
Viscosity, kinematic	:	Not applicable
Explosive properties	:	Not explosive.
Oxidizing properties	:	Not oxidising.
Explosion limits	:	Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

Reactivity	:	The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No dangerous reactions known under normal conditions of use.
Conditions to avoid	:	No flames, no sparks. Eliminate all sources of ignition. Avoid dust formation.
Incompatible materials	:	None known.
Hazardous decomposition products	:	Does not decompose under normal conditions.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	:	Not classified
Acute toxicity (dermal)	:	Not classified
Acute toxicity (inhalation)	:	Not classified

Carbonic acid, calcium salt (1:1) (471-34-1)	
LD50 oral rat	> 2000 mg/kg (OECD 420: Acute Oral toxicity – Acute Toxic Class Method, Rat, Female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 3 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 15 day(s))

Manganese (7439-96-5)	
LD50 oral rat	9 g/kg (Source: NLM_CIP)
LC50 Inhalation - Rat	> 5.14 mg/l/4h

Potassium silicate (1312-76-1)	
LD50 oral rat	5700 mg/kg (Source: OECD_SIDS)
LD50 dermal rat	> 5000 mg/kg (Source: ECHA_API)

Potassium silicate (1312-76-1)	
LC50 Inhalation - Rat	> 2.06 mg/l/4h

Silicon (7440-21-3)	
LD50 oral rat	3160 mg/kg (Source: NLM_CIP)
LD50 dermal rabbit	> 5000 mg/kg body weight Animal: rabbit

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Causes serious eye irritation.

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Chromium alloy, base, Cr,C,Fe,N,Si (11114-46-8)	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Causes damage to organs through prolonged or repeated exposure.

Carbonic acid, calcium salt (1:1) (471-34-1)	
NOAEL (oral,rat,90 days)	1000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
NOAEC (inhalation,rat,dust/mist/fume,90 days)	≥ 0.212 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)

Manganese (7439-96-5)	
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.

Silicon (7440-21-3)	
NOAEL (oral,rat,90 days)	> 5000 mg/kg body weight Animal: rat, Animal sex: male

Aspiration hazard : Not classified

Likely routes of exposure : Skin and eye contact. Ingestion. Inhalation.

Symptoms/effects after inhalation : Short term exposure to fumes and gases from welding and other processes may result in metal fume fever, dizziness, nausea or dryness or irritation in the throat, nose or eyes. These emissions might also exacerbate pre-existing respiratory conditions like asthma or emphysema.

Long term exposure to fumes and gases could result in conditions such as siderosis (iron deposits in the lungs), impacts on the central nervous system effects, bronchitis and other pulmonary effects.

Symptoms/effects after skin contact : Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin. May cause an allergic skin reaction.

Symptoms/effects after eye contact : Causes serious eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Symptoms/effects after ingestion : May cause stomach distress, nausea or vomiting.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : See below for route-specific details.
Hazardous to the aquatic environment, short–term (acute) : Not classified.
Hazardous to the aquatic environment, long–term (chronic) : Not classified

Carbonic acid, calcium salt (1:1) (471-34-1)	
LC50 - Fish [1]	> 100 % (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Semi-static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	> 100 % (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 algae	> 100 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 72h - Algae [1]	> 14 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)

Manganese (7439-96-5)	
LC50 - Fish [1]	> 3.6 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [semi-static] Source: ECHA)
EC50 - Crustacea [1]	> 1.6 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	4.5 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 72h - Algae [2]	2.8 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
NOEC (chronic)	1.7 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '8 d'

Potassium silicate (1312-76-1)	
LC50 - Fish [1]	301 – 478 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus Source: IUCLID)
LC50 - Fish [2]	3185 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [semi-static] Source: IUCLID)
EC50 72h - Algae [1]	207 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 72h - Algae [2]	207 mg/l Test organisms (species):

Silicon (7440-21-3)	
EC50 72h - Algae [1]	≈ 250 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)

12.2. Persistence and degradability

Carbonic acid, calcium salt (1:1) (471-34-1)	
Persistence and degradability	Biodegradability in soil: not applicable. Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

12.3. Bioaccumulative potential

Carbonic acid, calcium salt (1:1) (471-34-1)	
Bioaccumulative potential	Not bioaccumulative.
BCF - Fish [1]	(no bioaccumulation)

Potassium silicate (1312-76-1)	
BCF - Fish [1]	(no bioaccumulation expected)

12.4. Mobility in soil

Carbonic acid, calcium salt (1:1) (471-34-1)	
Surface tension	No data available (test not performed)
Ecology - soil	Low potential for adsorption in soil.

12.5. Other adverse effects

Ozone : Not classified

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of the material collected according to regulations.
Sewage disposal recommendations : Disposal must be done according to official regulations.
Product/Packaging disposal recommendations : Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling, disposal or collection.

SECTION 14: Transport information

TDG	DOT
14.1. UN number	
Not regulated	Not regulated
14.2. Proper Shipping Name	
Not regulated	Not regulated
14.3. Transport hazard class(es)	
Not regulated	Not regulated
14.4. Packing group	
Not regulated	Not regulated
14.5. Environmental hazards	
Not regulated	Not regulated
No supplementary information available	

14.6. Special precautions for user

TDG
Not regulated

DOT
Not regulated

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. National regulations

All components of this product are present on DSL, except for:
Chromium alloy, base, Cr,C,Fe,N,Si
Aluminosilicic acid, potassium salt (AlO8Si3K)

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:
Chromium alloy, base, Cr,C,Fe,N,Si
Aluminosilicic acid, potassium salt (AlO8Si3K)

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.
Manganese

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

Issue date : 05/01/2024

Other information : For an updated SDS, please contact the supplier or manufacturer listed on the first page of the document.

The information in the safety data sheet was written by Dell Tech Laboratories Ltd. (www.delltech.com) based on the best knowledge and experience currently available. Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.