Safety Data Sheet

according to Regulation (EC) No 1907/2006

VTA Nanofloc® A 644

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

1.1. Product identifier

VTA Nanofloc® A 644

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

Use of the substance/mixture

Precipitant Agglomerating agent

Uses advised against

No data available

1.3. Details of the supplier of the safety data sheet

Company name:	VTA Austria GmbH	
Street:	Umweltpark 1	
Place:	A-4681 Rottenbach	
Telephone:	+43(0)7732 4133	Telefax: +43(0)7732 2270
e-mail:	vta@vta.cc	
Contact person:	SDB-Abteilung	
e-mail:	datenblaetter@vta.cc	
Internet:	www.vta.cc	
Responsible Department:	Engineering	

1.4. Emergency telephone number:

+43(0) 1-406 43 43-0 (24h);
(CZ: +420 224919293 a +420 224915402)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:
Substance or mixture corrosive to metals: Met. Corr. 1
Acute toxicity: Acute Tox. 4
Serious eye damage/eye irritation: Eye Dam. 1
Hazard Statements:
May be corrosive to metals.
Harmful if swallowed.
Causes serious eye damage.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling

Iron-II-chloride (CAS No.: 7758-94-3)

Signal word: Danger

Pictograms:

Hazard statements

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H318	Causes serious eye damage.

Precautionary statements

P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
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.
P390	Absorb spillage to prevent material damage.
P406	Store in a corrosion-resistant container with a resistant inner liner.

2.3. Other hazards

Hazardous decomposition products: Hydrogen chloride (HCl). Carbon monoxide Carbon dioxide (CO_2). Nitrogen oxides (NOx).
Special danger of slipping by leaking/spilling product.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

nanomaterial

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
7758-94-3	Iron-II-chloride			< 35 %
	231-843-4		01-2119498060-41	
	Acute Tox. 4, Eye Dam. 1; H302 H318			

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

Move to fresh air.

After contact with skin

Wash with plenty of water. Take off contaminated clothing and wash it before reuse.

After contact with eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an ophthalmologist.

After ingestion

Observe risk of aspiration if vomiting occurs. Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person or a person with cramps. Call a physician immediately.

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

Symptoms: corrosive.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings. The product itself does not burn.
Foam. Carbon dioxide (CO2). Extinguishing powder.

Unsuitable extinguishing media

No data available

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated: Carbon monoxide Carbon dioxide (CO2). Hydrogen chloride (HCl). Nitrogen oxides (NOx).

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protective suit.

Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately.
Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.
Special danger of slipping by leaking/spilling product.

6.4. Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. Wear personal protection equipment. Avoid contact with skin, eyes and clothes.

Advice on protection against fire and explosion

No special measures are necessary.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep only in the original container. Keep container tightly closed in a dry, cool and well-ventilated place. Keep container tightly closed.
Unsuitable container/equipment material: Metal
Suitable material for Container: Acid proof. (PE, PP, PVC, ...)

Hints on joint storage

Do not store together with: Oxidizing agents. Iron. copper. Aluminium. Alkalis (alkalis).

Further information on storage conditions

Store in a cool dry place. (at room temperature)
storage stability: 12 month(s)

7.3. Specific end use(s)

No data available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

DNEL/DMEL values

CAS No	Substance		
DNEL type	Exposure route	Effect	Value
7758-94-3	Iron-II-chloride		
Consumer DNEL, long-term	oral	systemic	0,29 mg/kg bw/day
Consumer DNEL, acute	oral	systemic	0,29 mg/kg bw/day
Worker DNEL, long-term	dermal	systemic	0,57 mg/kg bw/day
Worker DNEL, acute	dermal	systemic	0,57 mg/kg bw/day
Consumer DNEL, long-term	dermal	systemic	0,29 mg/kg bw/day
Consumer DNEL, acute	dermal	systemic	0,29 mg/kg bw/day
Worker DNEL, long-term	inhalation	systemic	2,01 mg/m³
Worker DNEL, acute	inhalation	systemic	2,01 mg/m³
Consumer DNEL, long-term	inhalation	systemic	0,5 mg/m³
Consumer DNEL, acute	inhalation	systemic	0,5 mg/m³

PNEC values

CAS No	Substance
Environmental compartment	Value
7758-94-3	Iron-II-chloride
Freshwater sediment	49 mg/kg
Marine sediment	49,5 mg/kg
Micro-organisms in sewage treatment plants (STP)	500 mg/l
Soil	55,5 mg/kg

8.2. Exposure controls

Appropriate engineering controls

Provide adequate ventilation as well as local exhaustion at critical locations.

Protective and hygiene measures

Take off contaminated clothing and wash it before reuse. When using do not eat or drink. Wash hands before

breaks and after work.

Eye/face protection

Suitable eye protection: Tightly sealed safety glasses.

Hand protection

Suitable gloves type: EN ISO 374
Suitable material: NBR (Nitrile rubber)
Permeation time (maximum wear time) > 480 min
For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection

Wear suitable protective clothing.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required. Wear breathing apparatus if exposed to vapours/dusts/aerosols. (ABEK-P2)

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	green -brown
Odour:	characteristic
pH-Value (at 20 °C):	ca. 1

Changes in the physical state

Initial boiling point and boiling range:	ca. 105 °C
Density:	ca. 1,2 g/cm³
Water solubility:	completely miscible
Partition coefficient:	No data available

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Corrosive to metals.

10.2. Chemical stability

The product is stable in the test system for the test duration.

10.3. Possibility of hazardous reactions

Exothermic reactions with: Alkalis (alkalis).

10.4. Conditions to avoid

Do not freeze. Do not expose to temperatures above 50 °C.

10.5. Incompatible materials

See chapter 7. No additional measures necessary.

10.6. Hazardous decomposition products

Carbon monoxide Carbon dioxide (CO2). Ammonia. Nitrogen oxides (NOx). Hydrogen chloride (HCl).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Harmful if swallowed.

ATEmix calculated

ATE (oral) 666,7 mg/kg

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
7758-94-3	Iron-II-chloride				
	oral	LD50 500 mg/kg	Rat		
	dermal	LD50 >2000 mg/kg	Rat		

Irritation and corrosivity

After skin contact: slightly irritant but not relevant for classification.

Following eye contact: Causes serious eye damage.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

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.

SECTION 12: Ecological information

12.1. Toxicity

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h] | [d]	Species	Source	Method
7758-94-3	Iron-II-chloride						
	Acute algae toxicity	ErC50	6,9 mg/l	72 h	Pseudokirchneriella subcapitata	Fe (total)	
	Acute crustacea toxicity	EC50	19 mg/l	48 h	Daphnia magna	Fe (total)	

12.2. Persistence and degradability

not applicable

12.3. Bioaccumulative potential

not applicable

12.4. Mobility in soil

Solubility in water (g/l): completely miscible

12.5. Results of PBT and vPvB assessment

No data available

12.6. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Dispose of waste according to applicable legislation.

Contaminated packaging

Dispose of waste according to applicable legislation.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number:	UN1760
14.2. UN proper shipping name:	CORROSIVE LIQUID, N.O.S. (Iron-II-chloride)
14.3. Transport hazard class(es):	8
14.4. Packing group:	III
Hazard label:	8

Classification code:	C9
Special Provisions:	274
Limited quantity:	5 L
Excepted quantity:	E1
Transport category:	3
Hazard No:	80
Tunnel restriction code:	E

Inland waterways transport (ADN)

14.1. UN number:	UN1760
14.2. UN proper shipping name:	CORROSIVE LIQUID, N.O.S. (Iron-II-chloride)
14.3. Transport hazard class(es):	8
14.4. Packing group:	III
Hazard label:	8

Classification code:	C9
Special Provisions:	274
Limited quantity:	5 L
Excepted quantity:	E1

Marine transport (IMDG)

14.1. UN number:	UN1760
14.2. UN proper shipping name:	CORROSIVE LIQUID, N.O.S. (Iron-II-chloride)
14.3. Transport hazard class(es):	8
14.4. Packing group:	III
Hazard label:	8

Special Provisions:	223, 274
Limited quantity:	5 L
Excepted quantity:	E1
EmS:	F-A, S-B

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number:	UN1760
14.2. UN proper shipping name:	CORROSIVE LIQUID, N.O.S. (Iron-II-chloride)
14.3. Transport hazard class(es):	8
14.4. Packing group:	III
Hazard label:	8

Special Provisions:	A3 A803
Limited quantity Passenger:	1 L
Passenger LQ:	Y841
Excepted quantity:	E1
IATA-packing instructions - Passenger:	852
IATA-max. quantity - Passenger:	5 L
IATA-packing instructions - Cargo:	856
IATA-max. quantity - Cargo:	60 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

See protective measures under point 7 and 8.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No data available

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3

National regulatory information

Employment restrictions:	Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
Water hazard class (D):	1 - slightly hazardous to water

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:
Iron-II-chloride

SECTION 16: Other information

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Acute Tox. 4; H302	Calculation method
Skin Corr. 1; H314	On basis of test data
Eye Dam. 1; H318	Calculation method

Relevant H and EUH statements (number and full text)

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)