

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 01.06.2017

Version number 1

Revision: 24.05.2017

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

1.1 Product identifier

Trade name **Ferrofos 8426**

Article number: **48041**

Article number: 48041

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

No further relevant information available.

Application of the substance / the mixture

Formulation additive

Water conditioner

Water treatment

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Kurita Europe GmbH

Giulinistraße 2

D-67065 Ludwigshafen

www.kurita.eu

Tel: +49 621 1218-3000

Information: MSDS@kurita.eu

1.4 Emergency telephone number:

Emergency CONTACT (24-Hour-Number):

Europe: GBK GmbH +49 (0)6132-84463

International: GBK/Infotrac ID 108808: (001) 352 323 3500

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

Hazard pictograms



GHS07

Signal word Warning

Hazard-determining components of labelling:

phosphoric acid

nitrilotrimethylenetrakis(phosphonic acid)

Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention.

(Contd. on page 2)

—GB—

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 01.06.2017

Version number 1

Revision: 24.05.2017

Trade name Ferrofos 8426

Article number: 48041

P302+P352

IF ON SKIN: Wash with plenty of water.

(Contd. of page 1)

SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures

Description:

Mixture consisting of the following components:

Inorganic acids

Organic acids

Organic polymers

Inhibitors

in water

Dangerous components:

CAS: 6419-19-8	nitrilotrimethylenetris(phosphonic acid)	2.5-10%
----------------	--	---------

EINECS: 229-146-5	Met. Corr.1, H290; Eye Irrit. 2, H319	
-------------------	---------------------------------------	--

Reg.nr.: 01-2119487988-08-xxxx		
--------------------------------	--	--

CAS: 7647-01-0	hydrochloric acid	< 2.5%
----------------	-------------------	--------

EINECS: 231-595-7	Skin Corr. 1B, H314; STOT SE 3, H335	
-------------------	--------------------------------------	--

Index number: 017-002-01-X		
----------------------------	--	--

Reg.nr.: 01-2119484862-27-xxxx		
--------------------------------	--	--

CAS: 7664-38-2	phosphoric acid	< 2.5%
----------------	-----------------	--------

EINECS: 231-633-2	Met. Corr.1, H290; Skin Corr. 1B, H314	
-------------------	--	--

Index number: 015-011-00-6		
----------------------------	--	--

Reg.nr.: 01-2119485924-24-xxxx		
--------------------------------	--	--

SVHC No

Additional information For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information Instantly remove any clothing soiled by the product.

After inhalation : Supply fresh air; consult doctor in case of symptoms.

After skin contact :

Wash with water and soap.

If skin irritation continues, consult a doctor.

After eye contact : Rinse opened eye for 15 minutes under running water. Then consult doctor.

After swallowing :

Rinse out mouth and then drink plenty of water (approx. 500 ml).

Seek medical treatment.

4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents

Use fire fighting measures that suit the environment.

CO₂, extinguishing powder or water jet. Fight larger fires with foam.

For safety reasons unsuitable extinguishing agents Water with a full water jet.

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 01.06.2017

Version number 1

Revision: 24.05.2017

Trade name Ferrofos 8426

Article number: 48041

(Contd. of page 2)

5.2 Special hazards arising from the substance or mixture

Fire can cause release of :

Carbon monoxide (CO)

Nitrogen oxides (NO_x)

Hydrogen chloride (HCl)

5.3 Advice for firefighters

• **Protective equipment:** Put on breathing apparatus.• **Additional information** Cool endangered containers with water spray jet.

SECTION 6: Accidental release measures

• **6.1 Personal precautions, protective equipment and emergency procedures** Wear protective clothing.

6.2 Environmental precautions:

Do not allow concentrated solutions to enter drainage system, surface or ground water.

6.3 Methods and material for containment and cleaning up:

Use neutralising agent.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).

Dispose of contaminated material as waste according to section 13.

6.4 Reference to other sections

See section 7 for information on safe handling

See section 8 for information on personal protection equipment.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

When diluting, always stir the product into standing water.

Ensure good ventilation/exhaustion at the workplace.

• **Information about protection against explosions and fires:** No special measures required.

7.2 Conditions for safe storage, including any incompatibilities

Storage

Requirements to be met by storerooms and containers:

Store only in the original container.

Use polyolefine containers.

Do not use light alloy containers.

• **Information about storage in one common storage facility:** Do not store together with alkalis (caustic solutions).

Further information about storage conditions:

Store in cool, dry conditions in well sealed containers.

Protect from frost.

• **7.3 Specific end use(s)** No further relevant information available.

* SECTION 8: Exposure controls/personal protection

• **Additional information about design of technical systems:** No further data; see section 7.

8.1 Control parameters

Components with critical values that require monitoring at the workplace:

7647-01-0 hydrochloric acid

WEL (Great Britain)

Short-term value: 8 mg/m³, 5 ppmLong-term value: 2 mg/m³, 1 ppm

(gas and aerosol mists)

(Contd. on page 4)

— GB —

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 01.06.2017

Version number 1

Revision: 24.05.2017

Trade name Ferrofos 8426

Article number: 48041

(Contd. of page 3)

IOELV (European Union) Short-term value: 15 mg/m³, 10 ppm
Long-term value: 8 mg/m³, 5 ppm

7664-38-2 phosphoric acid

WEL (Great Britain) Short-term value: 2 mg/m³
Long-term value: 1 mg/m³

IOELV (European Union) Short-term value: 2 mg/m³
Long-term value: 1 mg/m³

DNELs

6419-19-8 nitrilotrimethylenetris(phosphonic acid)

Oral General population 1.38 mg/kg bw/day (long-term exposure, systemic effects)
1.38 mg/kg bw/day (short term exposure, systemic effects)
Dermal Worker 2.75 mg/kg bw/day (long-term exposure, systemic effects)
2.75 mg/kg bw/day (short term exposure, systemic effects)
General population 1.38 mg/kg bw/day (long-term exposure, systemic effects)
1.38 mg/kg bw/day (short term exposure, systemic effects)
Inhalative Worker 9.7 mg/m³ (long-term exposure, systemic effects)
9.7 mg/m³ (short term exposure, systemic effects)
General population 2.39 mg/m³ (long-term exposure, systemic effects)
2.39 mg/m³ (short term exposure, systemic effects)

7647-01-0 hydrochloric acid

Inhalative Worker 8 mg/m³ (long-term exposure, local effect)
15 mg/m³ (short term exposure, local effects)

7664-38-2 phosphoric acid

Inhalative Worker 1 mg/m³ (long-term exposure, local effect)
2 mg/m³ (short term exposure, local effects)
General population 0.73 mg/m³ (long-term exposure, local effect)

PNECs

6419-19-8 nitrilotrimethylenetris(phosphonic acid)

Water 0.46 mg/L (fresh water)
0.046 mg/L (sea water)
Sediment 150 mg/kg (fresh water)
15 mg/kg (sediment (sea water))
Soil 244 mg/kg (soil)
Sewage treatment 20 mg/L (activated sludge)

7647-01-0 hydrochloric acid

Water 0.036 mg/L (fresh water)
0.036 mg/L (sea water)
0.045 mg/L (intermittent release)

Sewage treatment 0.036 mg/L (sewage-treatment plant) (source: ECHA)

Additional information: The lists that were valid during compilation were used as a basis.

8.2 Exposure controls

Personal protective equipment

General protective and hygienic measures

The usual precautionary measures should be adhered to in handling the chemicals.
Instantly remove any soiled and impregnated garments.

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 01.06.2017

Version number 1

Revision: 24.05.2017

Trade name **Ferrofos 8426**

Article number: 48041

(Contd. of page 4)

- Do not eat or drink while working.
- Wash hands during breaks and at the end of the work.
- Avoid contact with the eyes and skin.
- Do not inhale gases / fumes / aerosols.
- . **Breathing equipment:**
 - Use breathing protection only when aerosol or mist is formed.
 - Filter A/P2 (DIN EN 141)
- . **Protection of hands:**
 - Protective gloves:
 - In case of spray contact at least protection index 2 recommended, according to more than 30 min. penetration time (EN 374).
 - Layer thickness of gloves at least: 0.4 mm
 - In case of prolonged and intensive contact protection index 6 recommended, according to more than 480 min. penetration time (EN 374).
 - Layer thickness of gloves at least: 0.7 mm
- . **Material of gloves**
 - Butyl rubber, BR
 - Fluorocarbon rubber (Viton)
 - Nitrile rubber, NBR
 - Natural rubber, NR
 - Chloroprene rubber, CR
 - Neoprene gloves
- . **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.
- . **Not suitable are gloves made of the following materials:** Leather gloves
- . **Eye protection:** Tightly sealed safety glasses (DIN 58211, EN 166)
- . **Body protection:** Acid resistant protective clothing

SECTION 9: Physical and chemical properties

. 9.1 Information on basic physical and chemical properties

. General Information

. Appearance:

Form:	Fluid
Colour:	Colourless
Smell:	Characteristic
Odour threshold:	not determined

. pH-value (10 g/l) at 20 °C: ca. 2.3

. Change in condition

Melting point/Melting range:	not determined
Boiling point/Boiling range:	Not determined
Setting temperature / range:	ca. -19 °C

. Flash point: > 100 °C

. Inflammability (solid, gaseous) not applicable

. Ignition temperature: not applicable

. Decomposition temperature: not determined

. Danger of explosion: Product is not explosive.

(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 01.06.2017

Version number 1

Revision: 24.05.2017

Trade name Ferrofos 8426

Article number: 48041

(Contd. of page 5)

- . **Critical values for explosion:**
 - Lower:** not applicable
 - Upper:** not applicable
- . **Oxidising properties** not applicable
- . **Steam pressure:** not determined
- . **Density at 20 °C** ca. 1.06 g/cm³
- . **Evaporation rate** not determined
- . **Solubility in / Miscibility with Water:** Fully miscible
- . **Partition coefficient (n-octanol/water):** not determined
- . **Viscosity:**
 - dynamic:** not determined
 - kinematic:** not determined
- . **9.2 Other information** No further relevant information available.

SECTION 10: Stability and reactivity

- . **10.1 Reactivity** No hazardous reactions when stored and handled according to instructions.
- . **10.2 Chemical stability**
- . **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- . **10.3 Possibility of hazardous reactions** Reacts with alkali (lyes)
- . **10.4 Conditions to avoid** No further relevant information available.
- . **10.5 Incompatible materials:** No further relevant information available.
- . **10.6 Hazardous decomposition products:**
 - No dangerous decomposition products known
 - Danger of toxic pyrolysis products

* SECTION 11: Toxicological information

- . **11.1 Information on toxicological effects**
- . **Acute toxicity** Based on available data, the classification criteria are not met.
- . **LD/LC50 values that are relevant for classification:**
 - 6419-19-8 nitrilotrimethylenetris(phosphonic acid)**
 - Oral LD50 2910 mg/kg (rat) (equivalent to OECD 401)
 - Dermal LD50 > 6310 mg/kg (rabbit) (equivalent to OECD 402)
 - 7664-38-2 phosphoric acid**
 - Oral LD50 ca. 2600 mg/kg (rat) (OECD 423)
 - Dermal LD50 2740 mg/kg (rabbit)
- .

Components	Type	Value	Species
Product ATEmix	oral	> 5000 mg/kg	
Product ATEmix	dermal	> 5000 mg/kg	
- . **Primary irritant effect:**
- . **Skin corrosion/irritation**
 - Causes skin irritation.
- . **Serious eye damage/irritation**
 - Causes serious eye irritation.

(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 01.06.2017

Version number 1

Revision: 24.05.2017

Trade name Ferrofos 8426

Article number: 48041

(Contd. of page 6)

- . **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- . **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- . **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- . **Carcinogenicity** Based on available data, the classification criteria are not met.
- . **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.

* SECTION 12: Ecological information

. 12.1 Toxicity

. Aquatic toxicity:

EC50 > 100 mg/L (bacteria)

IC50 > 100 mg/L (fish)

6419-19-8 nitrilotrimethylenetrakis(phosphonic acid)

LC50 (96 h) 160 mg/L (rainbow trout) (equivalent to OECD 204)

EC50 (48 h) 297 mg/L (daphnia magna) (equivalent to OECD 202)

7664-38-2 phosphoric acid

EC50 (48 h) > 100 mg/L (daphnia magna) (OECD 202)

EC50 (72 h) > 100 mg/L (desmodesmus subspicatus) (OECD 201)

NOEC 56 mg/L (daphnia magna) (OECD 202 (48 h))

100 mg/L (desmodesmus subspicatus) (OECD 201 (72 h))

. 12.2 Persistence and degradability non-rapidly biodegradable

. Other information: Easy elimination possible by flocculation or adsorption by sludge.

. Behaviour in environmental systems:

. Components:

Product should not get in higher quantities into waste water because it may act as a plant nutrient and precipitate heavy metals.

. 12.3 Bioaccumulative potential No further relevant information available.

. 12.4 Mobility in soil No further relevant information available.

. Ecotoxicological effects:

. Other information:

No VOC according to EC-directive 1999/13/EC

COD: ca. 75 mgO₂/g

. Additional ecological information:

. General notes:

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

. 12.5 Results of PBT and vPvB assessment

. PBT: Not applicable.

. vPvB: Not applicable.

. 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

. 13.1 Waste treatment methods

. Recommendation

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Must be specially treated in adherence to official regulations.

(Contd. on page 8)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 01.06.2017

Version number 1

Revision: 24.05.2017

Trade name Ferrofos 8426

Article number: 48041

(Contd. of page 7)

. European waste catalogue

16 03 05* organic wastes containing hazardous substances

. Uncleaned packaging:

. Recommendation:

Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.

Packagings that cannot be cleaned are to be disposed of in the same manner as the product.

Dispose of packaging according to regulations on the disposal of packagings.

. Recommended cleaning agent: Water, if necessary with cleaning agent.

SECTION 14: Transport information

. 14.1 UN-Number

. ADR, IMDG, IATA

Void

. 14.2 UN proper shipping name

. ADR, IMDG, IATA

Void

. 14.3 Transport hazard class(es)

. ADR, IMDG, IATA

. Class

Void

. 14.4 Packing group

. ADR, IMDG, IATA

Void

. 14.5 Environmental hazards:

Not applicable.

. 14.6 Special precautions for user

Not applicable.

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

Not applicable.

. Transport/Additional information:

Frost protected transport has to be guaranteed.

Not dangerous according to the above regulations.

. UN "Model Regulation":

Void

SECTION 15: Regulatory information

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

. Directive 2012/18/EU

. Named dangerous substances - ANNEX I hydrochloric acid

. REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

. National regulations

. Information about limitation of use: Employment restrictions concerning young persons must be observed.

. 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

. Relevant phrases

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

. Department issuing data specification sheet: Product Safety and Regulatory Affairs

(Contd. on page 9)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 01.06.2017

Version number 1

Revision: 24.05.2017

Trade name Ferrofos 8426

Article number: 48041

(Contd. of page 8)

. **Contact:** MSDS@kurita.eu. **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

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 Harmonised 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 (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Met. Corr. 1: Corrosive to metals – Category 1

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

. **Sources:** source ECHA: European Chemicals Agency, <http://echa.europa.eu/>. *** Data compared to the previous version altered.**