

SAFETY DATA SHEET

FERRO-BET RUST-BORT

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

1.1. Product identifier

Trade name

FERRO-BET RUST-BORT

Product no.

260010,260011,260012,260013,260014

Unique formula identifier (UFI)

3JE0-F1A4-P00K-DPR6

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

Relevant identified uses of the substance or mixture

Fjerning av overflaterust og rustbeskyttelse

Uses advised against

None known.

1.3. Details of the supplier of the safety data sheet

Company and address

Krefting & Co AS

Postboks 14

1314 Vøyenenga

Norway

+47 67526085

<http://www.krefting.no/>

Contact person

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E-mail

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Revision

26/01/2024

SDS Version

2.0

Date of previous version

28/04/2023 (1.0)

1.4. Emergency telephone number

In urgent situations: Call 113 and request the poison information centre. (24h service)

Poison Center at Tel.: + 47 22 59 13 00

See section 4 on 'First Aid Measures'

SECTION 2: Hazards identification

Classified according to Regulation (EC) No. 1272/2008 (CLP).

2.1. ▼ Classification of the substance or mixture

Skin Corr. 1A; H314, Causes severe skin burns and eye damage.

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

2.2. Label elements

Hazard pictogram(s)



Signal word

Danger

Hazard statement(s)

Causes severe skin burns and eye damage. (H314)

Precautionary statement(s)

General

If medical advice is needed, have product container or label at hand. (P101)

Keep out of reach of children. (P102)

Prevention

Do not breathe vapour/mist. (P260)

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

▼ Response

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. (P301+P330+P331)

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. (P303+P361+P353)

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

Continue rinsing. (P305+P351+P338)

Immediately call a POISON CENTER/doctor. (P310)

Storage

-

▼ Disposal

Dispose of contents/container in accordance with local regulation

(P501)

Hazardous substances

Orthophosphoric acid ...%

Additional labelling

UFI: 3JE0-F1A4-P00K-DPR6

2.3. Other hazards

▼ Additional warnings

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable. This product is a mixture.

3.2. Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
Orthophosphoric acid ...%	CAS No.: 7664-38-2	10 < 20 %	Met. Corr. 1, H290 Acute Tox. 4, H302 Skin Corr. 1B, H314	[1]
	EC No.: 231-633-2			
	REACH: 01-2119485924-24			
	Index No.: 015-011-00-6			

1-Methoxy-2-propanol	CAS No.: 107-98-2	< 3 %	Flam. Liq. 3, H226 STOT SE 3, H336	[1]
	EC No.: 203-539-1			
	REACH: 01-2119457435-35- xxxx			
	Index No.: 603-064-00-3			

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

[1] European occupational exposure limit.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

▼Skin contact

Flush exposed area with water for a long time - at least 30 minutes. It may be necessary to flush for several hours. Use a comfortable water temperature (20-30 °C). Contact Poison Information/doctor/hospital for further advice on follow-up and treatment.

Upon irritation: rinse with water. In the event of continued irritation, seek medical assistance.

▼Eye contact

If in eyes: Flush eyes with plenty of water or salt water (20-30 °C) for at least 30 minutes and continue until irritation stops. Remove contact lenses. Make sure you flush under the upper and lower eyelids. Seek medical assistance immediately and continue flushing during transport.

Ingestion

In the case of ingestion, contact a doctor immediately. If the person is conscious, give them water. DO NOT try to induce vomiting unless this is recommended by a doctor. Hold head facing down to prevent vomit from returning to the mouth and throat. Prevent shock by keeping the injured person warm and calm. Initiate immediate resuscitation if breathing stops. If unconscious, roll the injured person into recovery position. Call an ambulance.

Burns

Not applicable.

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

Tissue-damaging effects: This product contains substances with skin corrosive properties. Inhaled vapour or aerosols may produce adverse effects to lungs, irritations and burns in the respiratory organs as well as coughing. Dermal contact and contact with the eye cause irreversible effects.

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

IF exposed or concerned:

Get immediate medical advice/attention.

Information to medics

Bring this safety data sheet or the label from this product.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.

Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid direct contact with spilled substances.

Ensure adequate ventilation, especially in confined areas.

Contaminated areas may be slippery.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.

Keep unauthorized persons away from the spill

6.3. Methods and material for containment and cleaning up

Limit spillage and collect using granular absorbent or similar materials, and dispose of it in accordance with the regulations on dangerous waste.

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: Handling and storage

7.1. ▼ Precautions for safe handling

Avoid direct contact with the product.

Avoid contact during pregnancy and while nursing.

Smoking, drinking and consumption of food is not allowed in the work area.

See section 8 "Exposure controls/personal protection" for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage material

Always store in containers of the same material as the original container.

Storage temperature

Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. ▼ Control parameters

Orthophosphoric acid ...%

Long term exposure limit (8 hours) (mg/m³): 1

Annotations:

E = The EU has set an indicative limit value and/or remark for the substance.

1-Methoxy-2-propanol

Long term exposure limit (8 hours) (mg/m³): 180

Long term exposure limit (8 hours) (ppm): 50

Annotations:

E = The EU has set an indicative limit value and/or remark for the substance.

H = Chemicals that can be absorbed through the skin.

Regulations concerning action and limit values for physical and chemical agents in the working environment and classified biological agents (Regulations concerning Action and Limit values) FOR-2011-12-06-1358. Last update: FOR-2023-03-24-412.

DNEL

1-Methoxy-2-propanol

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - General population	Dermal	78 mg/kg bw/day
Long term – Systemic effects - Workers	Dermal	183 mg/kg bw/day
Long term – Systemic effects - General population	Inhalation	43.9 mg/m ³
Long term – Systemic effects - Workers	Inhalation	369 mg/m ³
Short term – Local effects - Workers	Inhalation	553.5 mg/m ³
Short term – Systemic effects - Workers	Inhalation	553.5 mg/m ³
Long term – Systemic effects - General population	Oral	33 mg/kg bw/day

Orthophosphoric acid ...%

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - General population	Dermal	0,1 mg/kg bw/day
Long term – Local effects - General population	Inhalation	0,36 mg/m ³
Long term – Local effects - Workers	Inhalation	1 mg/m ³
Long term – Systemic effects - General population	Inhalation	4,57 mg/m ³
Long term – Systemic effects - Workers	Inhalation	10,7 mg/m ³
Short term – Local effects - Workers	Inhalation	2 mg/m ³

PNEC

1-Methoxy-2-propanol

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		10 mg/L
Freshwater sediment		52.3 mg/kg
Intermittent release (freshwater)		100 mg/L
Marine water		1 mg/L
Marine water sediment		5.2 mg/kg

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

Sewage treatment plant	100 mg/L
Soil	4.59 mg/kg

8.2. ▼ Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

General recommendations

Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios

There are no exposure scenarios implemented for this product.

Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

▼ Appropriate technical measures

The formation of vapours must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure eyewash and emergency showers are clearly marked.

Ensure that eyewash stations and safety showers are located within easy reach.

Apply standard precautions during use of the product. Avoid inhalation of vapours.

▼ Hygiene measures

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Pay special attention to hands, forearms and face.

Measures to avoid environmental exposure

Keep damming materials near the workplace. If possible, collect spillage during work.

Individual protection measures, such as personal protective equipment

▼ Generally

Wash contaminated clothing before reuse.

Use only CE marked protective equipment.

Respiratory Equipment

Type	Class	Colour	Standards
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Skin protection

Recommended	Type/Category	Standards
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Hand protection

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
nitril	0,4mm	>480 min	EN374	
Fluorinert gummi	0,4 mm	>480 min	374	

Eye protection

Type	Standards
	EN 166



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

Liquid

Colour

Yellowish

Odour / Odour threshold

Faint

pH

-

pH in solution

~ 1 (%)

Density (g/cm³)

1.14

Kinematic viscosity

Testing not relevant or not possible due to the nature of the product.

Particle characteristics

Does not apply to liquids.

Phase changes

Melting point/Freezing point (°C)

- 10 °C

Softening point/range (waxes and pastes) (°C)

Does not apply to liquids.

Boiling point (°C)

0

Vapour pressure

Testing not relevant or not possible due to the nature of the product.

Relative vapour density

Testing not relevant or not possible due to the nature of the product.

Decomposition temperature (°C)

Testing not relevant or not possible due to the nature of the product.

Data on fire and explosion hazards

Flash point (°C)

> 61 °C

Flammability (°C)

Testing not relevant or not possible due to the nature of the product.

Auto-ignition temperature (°C)

Testing not relevant or not possible due to the nature of the product.

Lower and upper explosion limit (% v/v)

Testing not relevant or not possible due to the nature of the product.

Solubility

Solubility in water

Completely soluble

n-octanol/water coefficient (LogKow)

Testing not relevant or not possible due to the nature of the product.

Solubility in fat (g/L)

Testing not relevant or not possible due to the nature of the product.

9.2. Other information

Other physical and chemical parameters

No data available.

Oxidizing properties

Ingen

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. ▼ Hazardous decomposition products

Thermal decomposition may produce corrosive vapours.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/substance	Orthophosphoric acid ...%
Species:	Rat
Route of exposure:	Inhalation
Test:	LC50
Result:	850 mg/L

Product/substance	Orthophosphoric acid ...%
Species:	Rabbit
Route of exposure:	Dermal
Test:	LD50
Result:	2,74 g/kg

Product/substance	1-Methoxy-2-propanol
Species:	Rat
Route of exposure:	Oral
Test:	LD50
Result:	5660 mg/kg

Product/substance	1-Methoxy-2-propanol
Species:	Rabbit
Route of exposure:	Dermal
Test:	LD50

Result: 13000 mg/kg

Product/substance 1-Methoxy-2-propanol

Species: Rat

Route of exposure: Inhalation

Test: LC50

Result: 55 mg/m³

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Serious eye damage/irritation

Causes serious eye damage.

Respiratory sensitisation

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

Skin sensitisation

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

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.

11.2. Information on other hazards

Long term effects

Tissue-damaging effects: This product contains substances with skin corrosive properties. Inhaled vapour or aerosols may produce adverse effects to lungs, irritations and burns in the respiratory organs as well as coughing. Dermal contact and contact with the eye cause irreversible effects.

▼ Endocrine disrupting properties

This mixture/product does not contain any substances known to have hormone-disrupting properties in relation to health.

Other information

None known.

SECTION 12: Ecological information

12.1. Toxicity

Product/substance Orthophosphoric acid ...%

Species: Fish, *Lepomis macrochirus*

Duration: 96 hours

Test: LC50

Result: 3 - 3,25 mg/L

Product/substance Orthophosphoric acid ...%

Test method:	OECD TG201
Species:	Algae, <i>Desmodesmus subspicatus</i>
Duration:	72 hours
Test:	NOEC
Result:	100 mg/L

Product/substance	Orthophosphoric acid ...%
Species:	Algae, <i>Desmodesmus subspicatus</i>
Duration:	72 hours
Test:	EC50
Result:	>100 mg/L

Product/substance	Orthophosphoric acid ...%
Species:	Crustacean, <i>Daphnia magna</i>
Duration:	48 hours
Test:	EC50
Result:	>100 mg/L

Product/substance	Orthophosphoric acid ...%
Test method:	OECD TG 209
Species:	Bacteria
Duration:	3 hours
Test:	EC50
Result:	>1000 mg/L

Product/substance	1-Methoxy-2-propanol
Species:	Fish
Duration:	96 hours
Test:	LC50
Result:	>1000 mg/L

Product/substance	1-Methoxy-2-propanol
Species:	Algae
Duration:	72 hours
Test:	IC50
Result:	>1000 mg/L

Product/substance	1-Methoxy-2-propanol
Species:	Crustacean, <i>Daphnia magna</i>
Duration:	48 hours
Test:	EC50
Result:	23300 mg/L

12.2. ▼ Persistence and degradability

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

12.3. ▼ Bioaccumulative potential

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

12.4. Mobility in soil

No data available.

12.5. ▼ Results of PBT and vPvB assessment

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

12.6. ▼ Endocrine disrupting properties

This mixture/product does not contain any substances considered to have endocrine-disrupting properties in relation to the environment.

12.7. Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. ▼ Waste treatment methods

Product is covered by the regulations on hazardous waste. (*)

HP 8 – Corrosive

Dispose of contents/container to an approved waste disposal plant.

Disposal to the sewer is discouraged.

Commission Regulation (EU) No 1357/2014 of 18 December 2014 on waste.

▼ EWC code

06 01 04* Phosphoric and phosphorous acid

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: Transport information



	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
ADR	UN1805	PHOSPHORIC ACID, SOLUTION	Transport hazard class: 8 Label: 8 Classification code: C1 	III	No	Limited quantities: 5 L Tunnel restriction code: (E) See below for additional information.
IMDG	UN1805	PHOSPHORIC ACID, SOLUTION	Transport hazard class: 8 Label: 8 Classification code: C1 	III	No	Limited quantities: 5 L EmS: F-A S-B See below for additional information.
IATA	UN1805	PHOSPHORIC ACID, SOLUTION	Transport hazard class: 8 Label: 8 Classification code: C1 	III	No	See below for additional information.

Additional information

ADR / See Table A, section 3.2.1 for any information on special provisions, requirements, or warnings in connection with transport. See section 5.4.3, for instructions in writing regarding mitigation of damages in

relation to incidents or accidents during transport.

IMDG / See section 3.2.1, for any information on special provisions, requirements, or warnings in connection with transport.

IATA / See Table 4.2 for any information on special provisions, requirements, or warnings in connection with transport.

This product is within scope of the regulations of transport of dangerous goods.

14.6. Special precautions for user

Not applicable.

14.7. Maritime transport in bulk according to IMO instruments

No data available.

SECTION 15: Regulatory information

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

Restrictions for application

People under the age of 18 shall not be exposed to this product.

Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.

Demands for specific education

No specific requirements.

SEVESO - Categories / dangerous substances

Not applicable.

▼ REACH, Annex XVII

1-Methoxy-2-propanol is subject to REACH restrictions, REACH annex XVII (entry 40).

Product registration number

7084

Declaration of chemicals

If the product is imported or produced in more than 100 kg/year it is subject to registration in the Product Register because it is classified as hazardous.

Additional information

Tactile warning.

If this product is sold in retail, it must be delivered with child-resistant fastening.

Sources

Council Directive 94/33/EC of 22 June 1994 on the protection of young people at work.

Act no. 62 of 17th June 2005 relating to working environment, working hours and employment protection, etc. (Working Environment Act).

Commission Regulation (EU) No 1357/2014 of 18 December 2014 on waste.

Regulation of 15 May 2015 no. 541 on declaring chemicals to the product register (Declaration Regulations)

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (CLP).

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

15.2. Chemical safety assessment

No

SECTION 16: Other information

Full text of H-phrases as mentioned in section 3

H226, Flammable liquid and vapour.

H290, May be corrosive to metals.

H302, Harmful if swallowed.

H314, Causes severe skin burns and eye damage.

H336, May cause drowsiness or dizziness.

▼ Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CE = Conformité Européenne (European conformity)

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

CSA = Chemical Safety Assessment

CSR = Chemical Safety Report

DMEL = Derived Minimal Effect Level

DNEL = Derived No Effect Level

EINECS = European Inventory of Existing Commercial chemical Substances

ES = Exposure Scenario

EUH statement = CLP-specific Hazard statement

EuPCS = European Product Categorisation System

EWC = European Waste Catalogue

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IARC = International Agency for Research on Cancer (IARC)

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

OECD = Organisation for Economic Co-operation and Development

PBT = Persistent, Bioaccumulative and Toxic

PNEC = Predicted No Effect Concentration

RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail

RRN = REACH Registration Number

SCL = A specific concentration limit

SVHC = Substances of Very High Concern

STOT-RE = Specific Target Organ Toxicity - Repeated Exposure

STOT-SE = Specific Target Organ Toxicity - Single Exposure

TWA = Time weighted average

UN = United Nations

UVBC = Unknown or variable composition, complex reaction products or of biological materials

VOC = Volatile Organic Compound

vPvB = Very Persistent and Very Bioaccumulative

▼ Additional information

The classification of the mixture in regard of health hazards is in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP).

▼ NOBB number

27071513, 27071521, 27071539

▼ The safety data sheet is validated by

Manish Budathoki

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

Country-language: NO-en