Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 02.06.2017 **Version number 1** **Revision: 25.05.2017**

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

. **1.1 Product identifier**

. **Trade name Ferrodor 2315**
Article number: 48416

. **Article number:** 48416

. **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 treatment
Water conditioner

. **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 Corr. 1A H314 Causes severe skin burns and eye damage.
Eye Dam. 1 H318 Causes serious eye damage.

. **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**

GHS05

. **Signal word** Danger

. **Hazard-determining components of labelling:**
sulphuric acid
. **Hazard statements**
H314 Causes severe skin burns and eye damage.
. **Precautionary statements**
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
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.

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 02.06.2017 **Version number 1** **Revision: 25.05.2017**

Trade name Ferrodor 2315
Article number: 48416

(Contd. of page 1)

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

SECTION 3: Composition/information on ingredients

. **3.1 Chemical characterisation: Substances** Solution in water
. **CAS No. Designation:**
void
. **Identification number(s):**
. **EC number:** void
. **3.2 Chemical characterisation: Mixtures**
. **Description:** Inorganic acids
. **Dangerous components:**

CAS: 7664-93-9 EINECS: 231-639-5 Index number: 016-020-00-8 Reg.nr.: 01-2119458838-20-xxxx	sulphuric acid Skin Corr. 1A, H314	25-50%

. **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.
In case of unconsciousness bring patient into stable side position for transport.
Call a doctor immediately.
. **After skin contact :**
Immediately wash with soap and water and rinse thoroughly.
Immediate medical treatment necessary. Failure to treat burns can prevent wounds from healing.
. **After eye contact :**
Rinse opened eye for 15 minutes under running water.
Call a doctor immediately.
. **After swallowing :**
Drink copious amounts of water (app. 500 ml) and provide fresh air. Instantly call for doctor.
Do not induce vomiting; instantly call for medical help.
. **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
. **Danger** Danger of gastric perforation.
. **4.3 Indication of any immediate medical attention and special treatment needed** If swallowed, gastric irrigation

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.
. **5.2 Special hazards arising from the substance or mixture**
Fire can cause release of :
Sulfur trioxide (SO3)

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 02.06.2017 **Version number 1** **Revision: 25.05.2017**

Trade name Ferrodor 2315
Article number: 48416

(Contd. of page 2)

. **5.3 Advice for firefighters**
. **Protective equipment:**
Wear self-contained breathing apparatus.
Wear full protective suit.

SECTION 6: Accidental release measures

. **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
. **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:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).
Use neutralising agent.
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**
Store in cool, dry conditions in well sealed containers.
When diluting, always stir the product into standing water.
. **Information about protection against explosions and fires:**
The product is not flammable
No special measures required.

. **7.2 Conditions for safe storage, including any incompatibilities**
. **Storage**
. **Requirements to be met by storerooms and containers:**
Provide acid-resistant floor.
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:** 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:**
. **DNELs**

7664-93-9 sulphuric acid
Inhalative Worker 0.05 mg/m3 (long-term exposure, local effect)
0.1 mg/m3 (short term exposure, local effects)

. **PNECs**

7664-93-9 sulphuric acid
Water 0.0025 mg/L (fresh water)

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 02.06.2017 **Version number 1** **Revision: 25.05.2017**

Trade name Ferrodor 2315
Article number: 48416

(Contd. of page 3)

	0.00025 mg/L (sea water)
Sediment	0.002 mg/kg (fresh water)
	0.0002 mg/kg (sea water)
Sewage treatment	8.8 mg/L (sewage-treatment plant)

. **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.
Avoid contact with the eyes and skin.
Keep away from foodstuffs, beverages and food.
Instantly remove any soiled and impregnated garments.
Wash hands during breaks and at the end of the work.
. **Breathing equipment:**
Use breathing protection only when aerosol or mist is formed.
Short term filter device: ABEK-filter
. **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)
Face protection (DIN 58214)
. **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:**	Odourless
. **Odour threshold:**	not applicable
. **pH-value at 20 °C:**	< 1 (100 %)

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 02.06.2017 **Version number 1** **Revision: 25.05.2017**

Trade name Ferrodor 2315
Article number: 48416

(Contd. of page 4)

. **Change in condition**	
Melting point/Melting range:	Not determined
Boiling point/Boiling range:	Not determined
. **Flash point:**	Not applicable
. **Inflammability (solid, gaseous)**	not applicable
. **Ignition temperature:**	not applicable
. **Decomposition temperature:**	not determined
. **Danger of explosion:**	Product is not explosive.
. **Critical values for explosion:**	
Lower:	not applicable
. **Oxidising properties**	none
. **Steam pressure:**	not determined
. **Density at 20 °C**	ca. 1.39 g/cm³
. **Evaporation rate**	not determined
. **Solubility in / Miscibility with**	
Water:	Fully miscible
. **Partition coefficient (n-octanol/water):**	ca. -2 log POW
. **Viscosity:**	
dynamic:	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 various metals
Reacts with light alloys to form hydrogen
Heating occurs when water is added
When diluting, always add acid to water, never vice versa
Reacts with alkali (lyes)
. **10.4 Conditions to avoid** No further relevant information available.
. **10.5 Incompatible materials:**
Alkali
Reacts with aluminium forming hydrogen.
. **10.6 Hazardous decomposition products:** Sulphur trioxide (SO3)

SECTION 11: Toxicological information

. **11.1 Information on toxicological effects**
. **Acute toxicity** Based on available data, the classification criteria are not met.
. **Primary irritant effect:**
. **Skin corrosion/irritation**
Causes severe skin burns and eye damage.

(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 02.06.2017 **Version number 1** **Revision: 25.05.2017**

Trade name Ferrodor 2315
Article number: 48416

(Contd. of page 5)

. **Serious eye damage/irritation**
Causes serious eye damage.
. **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
. **Sensitisation** No sensitizing effect known.
. **Repeated dose toxicity** No further relevant information available.
. **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)** No further relevant information available.
. **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:**
Harmful due to pH shift.

7664-93-9 sulphuric acid

LC50 (96 h) 16 - 28 mg/L (Lepomis macrochirus) (pH 3,25 - 3,50)

EC50 (24 h) 29 mg/L (daphnia magna) (pH 3,50)

. **12.2 Persistence and degradability** Inorganic salts are basicly not biodegradable.
. **12.3 Bioaccumulative potential** Does not accumulate in organisms
. **12.4 Mobility in soil** No further relevant information available.
. **Ecotoxical effects:**
. **Other information:**
No COD, no BOD, no AOX
No VOC according to EC-directive 1999/13/EC
. **Additional ecological information:**
. **According to recipe contains the following heavy metals and compounds according to EC guideline NO. 76/464 EC:**
None
. **General notes:** Must not reach sewage water or drainage ditch undiluted or unneutralised.
. **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.
. **European waste catalogue**

06 01 01* sulphuric acid and sulphurous acid

. **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.

(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 02.06.2017 **Version number 1** **Revision: 25.05.2017**

Trade name Ferrodor 2315
Article number: 48416

(Contd. of page 6)

Dispose of packaging according to regulations on the disposal of packagings.
. **Recommended cleaning agent:** Water, if necessary with cleaning agent.

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SECTION 14: Transport information

. **14.1 UN-Number**
. **ADR, IMDG, IATA** UN2796
. **14.2 UN proper shipping name**
. **ADR** 2796 SULPHURIC ACID
. **IMDG, IATA** SULPHURIC ACID
. **14.3 Transport hazard class(es)**

. **ADR**

. **Class** 8 (C1) Corrosive substances.
. **Label** 8

. **IMDG, IATA**

. **Class** 8 Corrosive substances.
. **Label** 8
. **14.4 Packing group**
. **ADR, IMDG, IATA** II
. **14.5 Environmental hazards:**
. **Marine pollutant:** No
. **14.6 Special precautions for user** Warning: Corrosive substances.
. **Kemler Number:** 80
. **EMS Number:** F-A,S-B
. **Segregation groups** Acids
. **Stowage Category** B
. **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.

. **ADR**
. **Limited quantities (LQ)** 1L
. **Excepted quantities (EQ)** Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml
. **Transport category** 2
. **Tunnel restriction code** E

(Contd. on page 8)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 02.06.2017 **Version number 1** **Revision: 25.05.2017**

Trade name Ferrodor 2315
Article number: 48416

(Contd. of page 7)

. **IMDG**

. **Limited quantities (LQ)**	1L
. **Excepted quantities (EQ)**	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
. **UN "Model Regulation":**	UN 2796 SULPHURIC ACID, 8, II

* 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** None of the ingredients is listed.
. **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**
H314 Causes severe skin burns and eye damage.

. **Department issuing data specification sheet:** Product Safety and Regulatory Affairs
. **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)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Skin Corr. 1A: Skin corrosion/irritation – Category 1A
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
. **Sources:** source ECHA: European Chemicals Agency, http://echa.europa.eu/
. *** Data compared to the previous version altered.**