



Revision: 03/09/2012

## SAFETY DATA SHEET

### 1 Identification of the substance or preparation and of the company/undertaking

#### 1.1 Product identifier

Product Name: IRON LR 1-2 REPLACEMENT PACK OPTION  
Datasheet Number: 729624-r 2. 0. 0  
Product Part Number: 729624  
Head Office:: Wilhelmsen Ships Service AS  
Address: Strandveien 20, N1324 Lysaker, Norway, Tel: (+47) 67584550

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

##### Reagent

#### 1.3 Details of the supplier of the safety data sheet

Name of Supplier: For quotations contact your local Customer Services  
Address of Supplier: Wilhelmsen Ships Service AS  
Willem Barentszstraat 50  
3165AB Rotterdam  
+31 4877 888  
The Netherlands  
Telephone: +31 4877 777  
Fax:  
Responsible Person: , Product HSE Manager, Tel.: +31 10 4877775  
Email: WSS.GLOBAL.SDSINFO@wilhelmsen.com

#### 1.4 Emergency telephone number

-ONLY TO BE USED IN CASE OF AN INCIDENT-  
NCEC: +44 1865 407333, CHEMTREC (800) 424 9300  
American Chemistry Council +1 703 527 3887,  
Greece +30 210 7793777  
Australia: +61 3 9630 0998  
Giftinformasjonssentralen in Norway Tel.: +47 22591300

### 2 Hazards identification

#### 2.1 Classification of the substance or mixture

- Regulations 1272/2008/EEC. Classification, labeling and packing of dangerous substances and preparations
- Repr. 1B
- May damage fertility or the unborn child.
- Eye Irrit. 2
- Causes serious eye irritation.
- 
- Council Directive 1999/45/EEC Classification, packing and labelling of dangerous preparations.
- This Safety Data Sheet is provided in compliance with The Dangerous Substances Directive (67/548/EEC)
- May impair fertility (R60)
- May cause harm to the unborn child (R61)

## 2 Hazards identification (....)

- Irritating to eyes (R36)

### 2.2 Label elements



- Signal Word: Danger
- Contains: (CAS:1330-43-4 - CAS: 10043-35-3 - CAS: 124-04-09)

### Hazard phrases

- May damage fertility or the unborn child. )
- Causes serious eye irritation.
- Restricted to professional users

### Precautionary Phrases

- Wear protective gloves/protective clothing/eye protection/face protection.
- Use personal protective equipment as required.
- Dispose of contents/container to an authorised waste collection point
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- IF exposed or concerned: Get medical advice/attention.
- Store locked up.

### Risk Phrases

- May impair fertility (R60)
- May cause harm to the unborn child (R61)
- Irritating to eyes (R36)

### Safety Phrases

- When using do not eat or drink (S20)
- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice (S26)
- Wear suitable protective clothing (S36)
- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible) (S45)
- Avoid exposure - obtain special instructions before use (S53)
- This material and its container must be disposed of as hazardous waste (S60)

### 2.3 Other hazards

- Odour: Odourless
- Appearance: Tablets, yellow, soluble in water
- Contact with skin: In cases of severe exposure, redness and irritation may develop
- Ingestion: The ingestion of significant quantities may cause gastro-intestinal disturbances

### 3 Composition/information on ingredients

Chemical Name	Concentration	CAS Number	EC Number	R/H Phrases*	Symbols
Boric Acid	40-50	10043-35-3	233-139-2	R60, 61	T, Repr. Cat2
Adipic acid	50-60	124-04-9	204-673-3	R36	Xi
Disodium tetraborate, anhydrous	5-10	1330-43-4	215-540-4	R60, 61	T, Repr. Cat2

\*See Section 16

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### 4 First aid measures

#### 4.1 Description of first aid measures

- IF ON SKIN: Wash with plenty of soap and water.
- Seek medical attention if irritation persists
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- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Seek immediate medical attention
- 
- IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
- Give plenty of water to drink
- Seek medical advice
- 
- Inhalation is unlikely to occur

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

- Causes eye irritation
- The ingestion of significant quantities may cause gastro-intestinal disturbances

#### 4.3 Indication of immediate medical attention and special treatment needed

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### 5 Fire-fighting measures

#### 5.1 Extinguishing media

- Not flammable. In case of fire use extinguishing media appropriate to surrounding conditions

#### 5.2 Special hazards arising from the substance or mixture

- Decomposition products may include sulphur oxides

#### 5.3 Advice for firefighters

- Substance evolves toxic fumes, wear self-contained breathing apparatus
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### 6 Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

- Wear protective clothing as per section 8

#### 6.2 Environmental Precautions

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## 6 Accidental release measures (....)

### 6.3 Methods and material for containment and cleaning up

- Sweep or shovel-up spillage and remove to a safe place
- Ensure adequate ventilation
- Avoid release to the environment.

### 6.4 Reference to other sections

- None
- 

## 7 Handling and storage

### 7.1 Precautions for safe handling

- The usual precautions for handling chemicals should be observed
- Ensure adequate ventilation
- Do not breathe dust/fume/gas/mist/vapours/spray.
- Eyewash bottles should be available

### 7.2 Conditions for safe storage, including any incompatibilities

- Protect from moist air
- Store locked up.
- Protect from sunlight. Store in a well-ventilated place.
- Protect from heat
- Avoid contact with water

### 7.3 Specific end use(s)

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## 8 Exposure controls/personal protection

### 8.1 Control parameters

- Disodium tetraborate, anhydrous  
WEL (long term) 1 mg/m<sup>3</sup>

### 8.2 Exposure controls

- Engineering controls should be provided which maintain airborne concentrations as low as practicable

#### Occupational exposure controls

- Wear suitable protective clothing, including eye/face protection and gloves (nitrile are recommended)
- No respiratory protection is needed if ventilation/extraction is adequate, otherwise wear approved dust mask



Goggles



Gloves

Respirator

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## 9 Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- Odour: Odourless
  - Appearance: Tablets, yellow, soluble in water
  - pH 3.8 at 9.8g/l at 20C % concentration
-

## 9 Physical and chemical properties (....)

- Boiling point - not applicable
- Melting point - not known
- Partially soluble in water
- Density 2.24 g/cm<sup>3</sup> at 20 deg C
- Flash point >100 deg C (CC)

### 9.2 Other information

- No information available
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## 10 Stability and reactivity

### 10.1 Reactivity

- This article is considered stable under normal conditions

### 10.2 Chemical stability

- Considered stable under normal conditions

### 10.3 Possibility of hazardous reactions

- No hazardous reactions known if used for its intended purpose

### 10.4 Conditions to avoid

- Avoid overheating

### 10.5 Incompatible materials

- Incompatible with reducing agents
- Incompatible with strong oxidizing substances

### 10.6 Hazardous Decomposition Products

- Decomposition products may include sulphur oxides
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## 11 Toxicological information

### 11.1 Information on toxicological effects

- LD50 (oral,rat) (Boric acid) 2660 mg/kg
- LD50 (skin,rat) (boric acid) 2000 mg/kg
- LC50 (inhalation,rat) (Boric acid) 2.03 mg/l/4h
- LD50 (oral,rat) (adipic acid) 5700 mg/kg
- LC50 (inhalation,rat) (adipic acid) 7.7 mg/l-4h mg/l/4h
- LD50 (skin,rabbit) (adipic acid) 7940 mg/kg
- LD50 (oral,rat) (disodium tetraborate, anhydrous) 1200 mg/kg

#### Inhalation

- Not regarded as a potential route of exposure.

#### Contact with skin

- In cases of severe exposure, redness and irritation may develop

#### Contact with eyes

- Causes irritation

#### Ingestion

- The ingestion of significant quantities may cause gastro-intestinal disturbances
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## 11 Toxicological information (....)

### Carcinogenicity

- No evidence of carcinogenic effects
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## 12 Ecological information

### 12.1 Toxicity

- EC50 (Daphnia magna) (adipic acid) 86 mg/l (48 hr)
- EC50 (Daphnia magna) (Boric acid) 133 mg/l (48 hr)
- LC50 (rainbow trout) (Boric acid) 50-100 mg/l (96 hr)
- LC50 (fish) (disodium tetraborate, anhydrous) 1085-1402 mg/l (48 hr)

### 12.2 Persistence and degradability

- No information available

### 12.3 Bioaccumulation Potential

- No information available

### 12.4 Mobility in soil

- Completely soluble in water

### 12.5 Results of PBT and vPvB assessment

### 12.6 Other Adverse Effects

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## 13 Disposal considerations

### 13.1 Waste treatment methods

- Disposal should be in accordance with local, state or national legislation
- Dispose of contents/container to an authorised waste collection point

### Classification

- EU Waste class: -16-05-06
  - This material and/or its container must be disposed of as hazardous waste
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## 14 Transport information

### 14.1 UN Number

- n/a

### 14.2 UN Proper Shipping Name

- n/a

### 14.3 Transport hazard class(es)

- n/a

### 14.4 Packing group

- n/a

### 14.5 Environmental hazards

- Presents no hazard to the environment

### 14.6 Special precautions for user

- Not classified as hazardous for transport
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## 14 Transport information (...)

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

- Not applicable

Other information

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## 15 Regulatory information

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

- SUBSTANCES OF VERY HIGH CONCERN (SVHC) ACCORDING TO REACH, ARTICLE 57:  
Boric acid, disodium tetraborate, anhydrous
- Council Directive 1999/45/EEC Classification, packing and labelling of dangerous preparations.
- This Safety Data Sheet is provided in compliance with The Dangerous Substances Directive (67/548/EEC)
- Regulations 1272/2008/EEC. Classification, labeling and packing of dangerous substances and preparations

15.2 Chemical Safety Assessment

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## 16 Other information

Text of R and S phrase codes used in this safety data sheet:- R36: Irritating to eyes; R60: May impair fertility; R61: May cause harm to the unborn child.

The information provided about the product on this Safety Data Sheet has been compiled from knowledge of the individual constituents

The data given here is based on current knowledge and experience. This Safety Data Sheet describes the product in terms of safety requirements and does not signify any warranty with regard to the product's properties

The data given here only applies when product used for proper application(s). The product is not sold as suitable for other applications - usage in such may cause risks not mentioned in this sheet. Do not use for other application(s) without seeking advice from manufacturer

The most up-to-date version of this MSDS can be found on [www.wilhelmsen.com/shipsservice](http://www.wilhelmsen.com/shipsservice)

### OTHER CONTACT INFORMATION MAJOR CHEMICAL OFFICES

For addresses of other Wilhelmsen Ships Service offices, please refer to [www.wilhelmsen.com/shipsservice](http://www.wilhelmsen.com/shipsservice)

Wilhelmsen Ships Service Level 1, 39 Park Street South Melbourne, Vic 3205 Australian Tel:+61 3 9630 0900  
Emergency 24hrs: +61 3 9630 0998

Wilhelmsen Ships Service INC 210 Edgewater Street US-10305 Staten Island New York United States Telephone  
daytime: (+1) 718 815 1310 Fax: (+1) 718 233 3268

Wilhelmsen Ships Service INC 2200 W. Pacific Coast Highway US-90810 Long Beach California, United States  
Tel (+1) 562 624 8888 Fax (+1) 562 624 1011

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daytime: (+1) 281 867 2000 Fax: (+1) 281 867 2800

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**16 Other information (....)**

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