

according to 1907/2006/EC, Article 31 (REACH)

Printing date 31.07.2018

Scharlau

Revision: 04.07.2018

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

· 1.1 Product identifier

- Trade name: Iron, standard solution 1000 mg/l Fe for AA (iron(III) nitrate nonahydrate in nitric acid 0,5 mol/l)
- · Article number: HI0302
- · Registration number

A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

- **1.2 Relevant identified uses of the substance or mixture and uses advised against** No further relevant information available.
- · Application of the substance / the preparation: Laboratory reagent
- · 1.3 Details of the supplier of the safety data sheet

• *Manufacturer/Supplier:* Scharlab, S.L.

C/Gato Pérez, 33. Pol.Ind. Mas d'en Cisa 08181 Sentmenat (Barcelona) SPAIN Tel: (+34) 93 745 64 00 - FAX: (+34) 93 715 27 65 email: scharlab@scharlab.com Internet Web Site: www.scharlab.com

Regional representation: Scharlab, S.L.
C/Gato Pérez, 33. Pol.Ind. Mas d'en Cisa 08181 Sentmenat (Barcelona) SPAIN
Tel: (+34) 93 745 64 00 - FAX: (+34) 93 715 27 65
email: scharlab@scharlab.com
Internet Web Site: www.scharlab.com

· Further information obtainable from: technical department

 1.4 Emergency telephone number: Please contact the regional Scharlab distributor/dealer in your country During normal opening times: Scharlab, S.L. (+34) 93 715 18 11

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



· Signal word Warning

(Contd. on page 2)



2018 р.

Printing date 31.07.2018	Revision: 04.07.2018
Trade name: Iron, standard solution 1000 mg/l Fe for AA (iron(III) mol/l)	nitrate nonahydrate in nitric acid 0,5
	(Contd. of page 1
· Hazard-determining components of labelling:	
nitric acid	
· Hazard statements	
H315 Causes skin irritation.	
H319 Causes serious eye irritation.	
Precautionary statements	
P264 Wash thoroughly after handling. P280 Wear protective gloves / eye protection / fa	ace protection
P305+P351+P338 IF IN EYES: Rinse cautiously with water t	
lenses, if present and easy to do. Continue	e rinsing.
P332+P313 If skin irritation occurs: Get medical advice	
P362+P364 Take off contaminated clothing and wash it P337+P313 If eye irritation persists: Get medical advice	
• 2.3 Other hazards	e/allention.
· Results of PBT and vPvB assessment	
• PBT: Not applicable.	
 vPvB: Not applicable. 	
SECTION 3: Composition/information on ingred	ients
3.2 Chemical characterisation: Mixtures Description: Aqueous solution	
Dangerous components:	
CAS: 7697-37-2 nitric acid	1-5%
EINECS: 231-714-2 Reg.nr.: 01-2119487297-23-XXXX	kin Corr. 1A, H314
• Additional information: For the wording of the listed hazard	phrases refer to section 16.
SECTION 4: First aid measures	
SECTION 4. First and measures	
• 4.1 Description of first aid measures	
• After inhalation:	an fan transmartation
In case of unconsciousness place patient stably in side position • After skin contact: Immediately wash with water and soap and	
• After eye contact:	na mise morodyny.
Rinse opened eye for several minutes under running water. If	symptoms persist, consult a doctor.
· After swallowing: If symptoms persist consult doctor.	
4.2 Most important symptoms and effects, both acute and	d delayed
No further relevant information available.	acial tractment needed
 4.3 Indication of any immediate medical attention and spectrum No further relevant information available. 	ecial treatment heeded
SECTION 5: Firefighting measures	
· 5.1 Extinguishing media	
· Suitable extinguishing agents:	
CO2, powder or water spray. Fight larger fires with water spra	
 5.2 Special hazards arising from the substance or mixture No further relevant information available. 	- C
	(Contd. on page 3)
choice	The
ise choice	The
wise choice	The
the wise choice	The 2



according to 1907/2006/EC, Article 31 (REACH)

Printing date 31.07.2018

Revision: 04.07.2018

(Contd. of page 2)

Trade name: Iron, standard solution 1000 mg/l Fe for AA (iron(III) nitrate nonahydrate in nitric acid 0,5 mol/l)

5.3 Advice for firefighters

· Protective equipment: No special measures required.

SECTION 6: Accidental release measures

- · 6.1 Personal precautions, protective equipment and emergency procedures Not required.
- **6.2** Environmental precautions: Dilute with plenty of water.
- Do not allow to enter sewers/ 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, sawdust). Ensure adequate ventilation.
- 6.4 Reference to other sections
 See Section 7 for information on safe handling.
 See Section 8 for information on personal protection equipment.
 - See Section 13 for disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

· Information about fire - and explosion protection: No special measures required.

· 7.2 Conditions for safe storage, including any incompatibilities

· Storage:

- · Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: Keep container tightly sealed.
- · 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- · Additional information about design of technical facilities: No further data; see item 7.
- · 8.1 Control parameters
- Ingredients with limit values that require monitoring at the workplace: 7697-37-2 nitric acid
- WEL Short-term value: 2.6 mg/m³, 1 ppm
- · Additional information: The lists valid during the making were used as basis.
- 8.2 Exposure controls
- Personal protective equipment:
- General protective and hygienic measures: Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.
- Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

(Contd. on page 4)



Printing date 31.07.2018

Revision: 04.07.2018

Trade name: Iron, standard solution 1000 mg/I Fe for AA (iron(III) nitrate nonahydrate in nitric acid 0,5 mol/l)

(Contd. of page 3)

· Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

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.

Eye protection:



Tightly sealed goggles

SECTION 9: Physical and chemical properties

- 9.1 Information on basic physical and chemical properties
- General Information
- · Appearance:
 - Form:
- Colour:
- · Odour:
- · Odour threshold:
- pH-value:
- · Change in condition Melting point/freezing point: Initial boiling point and boiling range: 100 °C
- · Flash point:
- Flammability (solid, gas):
- · Decomposition temperature:
- Auto-ignition temperature:
- Explosive properties:
- Explosion limits: Lower: **Upper:**
- Vapour pressure at 20 °C:
- · Density:

- Fluid Colourless Odourless Not determined.
- Not determined.
- Undetermined.

- Not applicable.
- Not applicable.

Not determined.

Product is not selfigniting.

Product does not present an explosion hazard.

Not determined. Not determined.

23 hPa Not determined.

(Contd. on page 5)



according to 1907/2006/EC, Article 31 (REACH)

Printing date 31.07.2018

Revision: 04.07.2018

Relative density Vapour density Evaporation rate	Not determined. Not determined. Not determined.
 Solubility in / Miscibility with water: 	Fully miscible.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity: Dynamic: Kinematic:	Not determined. Not determined.
 Solvent content: Organic solvents: Water: 	0.0 % 96.2 %
Solids content: • 9.2 Other information	0.7 % No further relevant information available.

SECTION 10: Stability and reactivity

• 10.1 Reactivity No further relevant information available.

10.2 Chemical stability

Thermal decomposition / conditions to be avoided:

- No decomposition if used according to specifications.
- · 10.3 Possibility of hazardous reactions No dangerous reactions known.
- 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.

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 skin irritation.
- · Serious eye damage/irritation
- Causes serious eye irritation.
- · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · CMR effects (carcinogenity, 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: No further relevant information available.
- 12.2 Persistence and degradability No further relevant information available.

(Contd. on page 6)



according to 1907/2006/EC, Article 31 (REACH)

Printing date 31.07.2018

Revision: 04.07.2018

Trade name: Iron, standard solution 1000 mg/I Fe for AA (iron(III) nitrate nonahydrate in nitric acid 0,5 mol/l)

(Contd. of page 5)

- · 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water Do not allow undiluted product or large quantities of it to reach ground water, water course 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 together with household garbage. Do not allow product to reach sewage system.

UN3264

- · Uncleaned packaging:
- **Recommendation:** Disposal must be made according to official regulations.
- · Recommended cleansing agents: Water, if necessary together with cleansing agents.

SECTION 14: Transport information

- · 14.1 UN-Number
- · ADR, IMDG, IATA
- 14.2 UN proper shipping name
- · ADR
- · IMDG, IATA
- 14.3 Transport hazard class(es)
- · ADR. IMDG. IATA



· Class

- · Label
- 14.4 Packing group
- ADR, IMDG, IATA
- · 14.5 Environmental hazards:
- · Marine pollutant:
- · 14.6 Special precautions for user · Danger code (Kemler):
- · EMS Number:
- Segregation groups
- Stowage Category
- Stowage Code
- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

8 Corrosive substances. 8

N.O.S. (NITRIC ACID)

N.O.S. (NITRIC ACID)

Ш

No Warning: Corrosive substances. 80 F-A,S-B Acids Α

3264 CORROSIVE LIQUID, ACIDIC, INORGANIC,

CORROSIVE LIQUID, ACIDIC, INORGANIC,

SW2 Clear of living quarters.

Not applicable.

(Contd. on page 7)



according to 1907/2006/EC, Article 31 (REACH)

Printing date 31.07.2018

Revision: 04.07.2018

Trade name: Iron, standard solution 1000 mg/l Fo mol/l)	e for AA (iron(III) nitrate nonahydrate in nitric acid 0,5
 Transport/Additional information: ADR Limited quantities (LQ) Transport category Tunnel restriction code UN "Model Regulation": 	(Contd. of page 6) 5L 3 E UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID), 8, III

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
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

H272 May intensify fire; oxidiser.

H314 Causes severe skin burns and eye damage.

- Classification according to Regulation (EC) No 1272/2008 The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.
- · Department issuing SDS: product safety department
- · Contact: msds@scharlab.com

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)
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Ox. Liq. 2: Oxidizing liquids Category 2
- Skin Corr. 1A: Skin corrosion/irritation Category 1A
- Skin Irrit. 2: Skin corrosion/irritation Category 2
- Eye Irrit. 2: Serious eye damage/eye irritation Category 2

(Contd. on page 8)



according to 1907/2006/EC, Article 31 (REACH)

Printing date 31.07.2018

Revision: 04.07.2018

Trade name: Iron, standard solution 1000 mg/l Fe for AA (iron(III) nitrate nonahydrate in nitric acid 0,5 mol/l)

(Contd. of page 7)

Annex: Exposure scenario 1

- 1 Short title of the exposure scenario Exposure scenario: Nitric acid 65% Industrial use
- · Sector of Use
- SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
- Product category PC21 Laboratory chemicals
- Process category PROC15 Use as laboratory reagent
- Environmental release category ERC2 Formulation into mixture
- ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article)
- · 2 Conditions of use
- · Duration and frequency 8hrs (full working shift).
- · Physical parameters

The data on the physical - chemical properties in the Exposure Scenario is based on the properties of the preparation.

- · Physical state Fluid
- · Concentration of the substance in the mixture The substance is main component.
- Other operational conditions Observe the general safety regulations when handling chemicals.
- Other operational conditions affecting environmental exposure No special measures required.

· Other operational conditions affecting worker exposure

- Avoid contact with eyes.
- Avoid contact with the skin.

Keep away from combustible material.

- · Other operational conditions affecting consumer exposure No special measures required.
- Other operational conditions affecting consumer exposure during the use of the product The consumer has to be advised of warnings regarding overdosage in the instructions for use. The directions for use must indicate the limits for proper use.
- · Risk management measures 🔿

· Worker protection

· Organisational protective measures

Surround with a dyke storage facilities to prevent contamination of soil and water in case of spillage Handle in a fume cupboard or under extract ventilation

Ensure good ventilation. This can be achieved by using a local exhaustion or general exhaust system. If these measures are insufficient to keep the solvent vapour concentration below the workplace limit, wear an adequate respiratory protective device.

Provide a good standard of controlled ventilation (10 to 15 air changes per hour) Keep away from food, beverages and animal feed.

- Provide Internal Plant Instruction.
- Technical protective measures

Ensure that suitable extractors are available on processing machines Use only in well ventilated areas.

Store in cool, dry place in tightly closed receptacles.

Only handle and refill product in closed systems.

Carry out filling operations only at sites with extractors available.

Personal protective measures

Do not inhale gases / fumes / aerosols.

Avoid contact with the skin.

Avoid contact with the eyes. Tightly sealed goggles

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

(Contd. on page 9)



Printing date 31.07.2018

Revision: 04.07.2018

Trade name: Iron, standard solution 1000 mg/I Fe for AA (iron(III) nitrate nonahydrate in nitric ar mol/I)	cid 0,5
(Cond.) Selection of the glove material on consideration of the penetration times, rates of diffusion degradation Wear suitable gloves (tested to EN374) If ventilation is inadequate, use respirator that will protect against dust/mist. Filter P2SL (I 140), acid gas filter (Type E). Self-contained respirator (DIN EN 133). Detailed measures on hand protection according to Safety Data Sheet, section 8. • <i>Measures for consumer protection</i> Ensure adequate labelling. • <i>Environmental protection measures</i> • <i>Air</i> No special measures required. • <i>Water</i>	
Generally, prior to the introduction of wastewater into wastewater treatment plants a neutral is required.	alisation
Do not allow to reach ground water, water bodies or sewage system, not even in small quar Do not allow to reach sewage system. • <i>Soil</i> No special measures required.	ntities.
 Disposal measures Disposal must be made according to official regulations. Ensure that waste is collected and contained. Disposal procedures 	
 Disposal procedures Must not be disposed together with household garbage. Do not allow product to reach system. Waste type 	sewage
Partially emptied and uncleaned packaging Aqueous solution	
Uncleaned packaging 3 - Exposure estimation The MEASE tool has been used to estimate workplace exposures unless otherwise indicate Worker (oral) 	ed.e cho
No significant oral exposure The calculated value is smaller than the DNEL.	
Worker (dermal) No significant dermal exposure	
The calculated value is smaller than the DNEL. Worker (inhalation) The calculated value is smaller than the DNEL. Environment 	
Detailed information on the estimation of the environmental exposure can be found a ecb.jrc.ec.europa.eu/euses/.	at http://
 • 4 - Guidance for downstream users Whether the downstream user acts within the scope of the Exposure Scenario can be based on the information in sections 1 to 8. 	verified
Whether the downstream user uses the substance / the mixture within the scope of the El Scenario can be determined by means of a technical assessment. For the risk assessment, the tools recommended by ECHA can be used.	xposure
(Contd. or	n page 10)



according to 1907/2006/EC, Article 31 (REACH)

Printing date 31.07.2018

Revision: 04.07.2018

Trade name: Iron, standard solution 1000 mg/l Fe for AA (iron(III) nitrate nonahydrate in nitric acid 0,5 mol/l)

(Contd. of page 9)

Annex: Exposure scenario 2

- **1 Short title of the exposure scenario** Exposure scenario: Nitric acid 65% Laboratory use
- · Sector of Use

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

- Product category PC21 Laboratory chemicals
- Process category PROC15 Use as laboratory reagent
- · Environmental release category
- ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)
- ERC8b Widespread use of reactive processing aid (no inclusion into or onto article, indoor)
- ERC8e Widespread use of reactive processing aid (no inclusion into or onto article, outdoor) 2 Conditions of use
- · Duration and frequency 8hrs (full working shift).
- · Physical parameters
- The data on the physical chemical properties in the Exposure Scenario is based on the properties of the preparation.
- · Physical state Fluid
- · Concentration of the substance in the mixture The substance is main component.
- · Other operational conditions Observe the general safety regulations when handling chemicals.
- · Other operational conditions affecting environmental exposure No special measures required.
- · Other operational conditions affecting worker exposure
- Avoid contact with eyes.
- Avoid contact with the skin.
- Keep away from combustible material.
- · Other operational conditions affecting consumer exposure No special measures required.
- Other operational conditions affecting consumer exposure during the use of the product The consumer has to be advised of warnings regarding overdosage in the instructions for use.
- The directions for use must indicate the limits for proper use.
- Risk management measures

Worker protection

Organisational protective measures

Surround with a dyke storage facilities to prevent contamination of soil and water in case of spillage Handle in a fume cupboard or under extract ventilation

Ensure good ventilation. This can be achieved by using a local exhaustion or general exhaust system. If these measures are insufficient to keep the solvent vapour concentration below the workplace limit, wear an adequate respiratory protective device.

Provide a good standard of controlled ventilation (10 to 15 air changes per hour) Keep away from food, beverages and animal feed.

Provide Internal Plant Instruction.

Technical protective measures

Ensure that suitable extractors are available on processing machines Use only in well ventilated areas.

Store in cool, dry place in tightly closed receptacles.

Only handle and refill product in closed systems.

Carry out filling operations only at sites with extractors available.

Personal protective measures
 Do not inhale gases / fumes / aerosols.
 Avoid contact with the skin.
 Avoid contact with the eyes.

Tightly sealed goggles

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

(Contd. on page 11)



Printing date 31.07.2018	Revision: 04.07.2018
Trade name: Iron, standard solution 1000 mg/l Fe for AA mol/l)	(iron(III) nitrate nonahydrate in nitric acid 0,5
	(Contd. of page 10)
Due to missing tests no recommendation to the glo preparation/ the chemical mixture.	
Selection of the glove material on consideration of the degradation	ne penetration times, rates of diffusion and the
Wear suitable gloves (tested to EN374) If ventilation is inadequate, use respirator that will p 140), acid gas filter (Type E). Self-contained respirato	or (DIN EN 133).
Detailed measures on hand protection according to S • Measures for consumer protection Ensure adequa • Environmental protection measures • Air No. enacted measures	
Air No special measures required. Water	
Generally, prior to the introduction of wastewater int is required.	o wastewater treatment plants a neutralisation
Do not allow to reach ground water, water bodies or Do not allow to reach sewage system.	sewage system, not even in small quantities.
 Soil No special measures required. Disposal measures 	
Disposal must be made according to official regulation Ensure that waste is collected and contained.	ins. Ne in the second
Disposal procedures Must not be disposed together with household gar	bage. Do not allow product to reach sewage
· Waste type	
Partially emptied and uncleaned packaging Aqueous solution Uncleaned packaging	
· 3 - Exposure estimation	
The MEASE tool has been used to estimate workplace • Worker (oral)	ce exposures unless otherwise indicated.
No significant oral exposure The calculated value is smaller than the DNEL.	
• Worker (dermal)	
No significant dermal exposure	
The calculated value is smaller than the DNEL.	than the DNE
Worker (inhalation) The calculated value is smaller Environment	than the DNEL.
Detailed information on the estimation of the env ecb.jrc.ec.europa.eu/euses/.	ironmental exposure can be found at http://
• 4 - Guidance for downstream users	
Whether the downstream user acts within the sco based on the information in sections 1 to 8.	
Whether the downstream user uses the substance a Scenario can be determined by means of a technical For the risk assessment, the tools recommended by	assessment.