

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 13.06.2011

Revision: 10.06.2011

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

Product identifier
Trade name **Iron(III) citrate hydrate**
Stock number: A10276
CAS Number: 334024-15-6
EINECS Number: 222-536-6
Relevant identified uses of the substance or mixture and uses advised against
Sector of Use SU24 Scientific research and development
Details of the supplier of the safety data sheet
Manufacturer/Supplier: Alfa Aesar GmbH & Co.KG
A Johnson Matthey Company
Benzstrasse 3
D-76185 Karlsruhe / Germany
Tel: +49 (0) 721 84007 280
Fax: +49 (0) 721 84007 300
Email: tech@alfa.com
www.alfa.com
Informing department: Product safety department.
Emergency telephone number: Product Safety Department +049 (0) 7275 988687-0 (business hours)
Carechem 24: +44 (0) 1235 239 670 (Multi-language 24 hour emergency)
Giftnotruf Universität Mainz / Poison Information Center Mainz
www.giftinfo.uni-mainz.de Telefon: +49(0)6131/19240

2 Hazards identification

Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008 The substance is not classified according to the CLP regulation.
Classification according to Directive 67/548/EEC or Directive 1999/45/EC Not applicable
Information concerning particular hazards for human and environment: Not applicable
Label elements
Labelling according to Regulation (EC) No 1272/2008 Not applicable
Hazard pictograms Not applicable
Signal word Not applicable
Hazard statements Not applicable
Other hazards
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

3 Composition/information on ingredients

Chemical characterization: Substances (CAS#) Designation: 334024-15-6 Iron(III) citrate hydrate
Identification number(s):
EINECS Number: 222-536-6

4 First aid measures

Description of first aid measures
After inhalation Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
After skin contact Seek immediate medical advice.
Instantly wash with water and soap and rinse thoroughly.
After eye contact Seek immediate medical advice.
After swallowing Rinse opened eye for several minutes under running water. Then consult doctor.
Information for doctor Seek medical treatment.
Most important symptoms and effects, both acute and delayed No further relevant information available.
Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Firefighting measures

Extinguishing media
Suitable extinguishing agents CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.
Special hazards arising from the substance or mixture Can be released in case of fire:
Carbon monoxide and carbon dioxide
Metal oxide
Advice for firefighters
Protective equipment: Wear self-contained breathing apparatus.
Wear full protective suit.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Do not allow material to be released to the environment without proper governmental permits.
Environmental precautions:
Methods and material for containment and cleaning up: Collect mechanically.
See Section 7 for information on safe handling
See section 8 for information on personal protection equipment.
See Section 13 for information on disposal.
Reference to other sections

7 Handling and storage

Handling
Precautions for safe handling Keep containers tightly sealed.
Store in cool, dry place in tightly closed containers.
Information about protection against explosions and fires: Use explosion-proof apparatus / fittings and spark-proof tools.

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Conditions for safe storage, including any incompatibilities

Storage
Requirements to be met by storerooms and containers:
Information about storage in one common storage facility:

No special requirements.
 Store in the dark.
 Store away from oxidizing agents.

Further information about storage conditions:

Keep container tightly sealed.
 Store in cool, dry conditions in well sealed containers.
 Protect from the effects of light.

Specific end use(s)

No further relevant information available.

8 Exposure controls/personal protection

Additional information about design of technical systems:

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Control parameters
Components with critical values that require monitoring at the workplace:
Additional information:

Not required.
 No data

Exposure controls
Personal protective equipment
General protective and hygienic measures

The usual precautionary measures should be adhered to in handling the chemicals.
 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.
 Use breathing protection with high concentrations.
 Check protective gloves prior to each use for their proper condition.
 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.

Breathing equipment:

Protection of hands:

Material of gloves

Impervious gloves

Penetration time of glove material

Not determined

Eye protection:

Safety glasses

Body protection:

Protective work clothing.

9 Physical and chemical properties**Information on basic physical and chemical properties****General Information****Appearance:**

Form: Powder

Colour: Orange

Brown

Smell: Not determined

Odour threshold: Not determined.

pH-value: Not applicable.

Change in condition

Melting point/Melting range: Not determined

Boiling point/Boiling range: Not determined

Sublimation temperature / start: Not determined

Inflammability (solid, gaseous) Not determined.

Ignition temperature: Not determined

Decomposition temperature: Not determined

Self-inflammability: Not determined.

Danger of explosion: Product is not explosive.

Critical values for explosion:

Lower: Not determined

Upper: Not determined

Steam pressure: Not applicable.

Density Not determined

Relative density Not determined.

Vapour density Not applicable.

Evaporation rate Not applicable.

Segregation coefficient (n-octanol/water): Not determined.

Viscosity:

dynamic: Not applicable.

kinematic: Not applicable.

Other information No further relevant information available.

10 Stability and reactivity**Reactivity****Chemical stability**

Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

Possibility of hazardous reactions

No dangerous reactions known

Incompatible materials:

Light

Oxidizing agents

Hazardous decomposition products:

Carbon monoxide and carbon dioxide

Metal oxide

11 Toxicological information**Information on toxicological effects****Acute toxicity:****Primary irritant effect:**

on the skin:

May cause irritation

on the eye:

May cause irritation

Sensitization:

No sensitizing effect known.

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Trade name **Iron(III) citrate hydrate****Additional toxicological information:**

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To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.
No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

12 Ecological information

Toxicity Acquatic toxicity: Persistence and degradability Behaviour in environmental systems: Bioaccumulative potential Mobility in soil Additional ecological information: General notes:	<p>No further relevant information available.</p> <p>No further relevant information available.</p> <p>No further relevant information available.</p> <p>No further relevant information available.</p> <p>Water hazard class 1 (Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system. Do not allow material to be released to the environment without proper governmental permits.</p>
Results of PBT and vPvB assessment PBT: vPvB: Other adverse effects	<p>Not applicable.</p> <p>Not applicable.</p> <p>No further relevant information available.</p>

13 Disposal considerations

Waste treatment methods Recommendation	<p>Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations. Consult state, local or national regulations for proper disposal.</p>
Uncleaned packagings: Recommendation:	<p>Disposal must be made according to official regulations.</p>

14 Transport information

Land transport ADR/RID and GGVS/GGVE (cross-border/domestic) ADR/RID-GGVS/E Class:	<p>None</p>
Maritime transport IMDG/GGVSea: IMDG/GGVSea Class: Marine pollutant:	<p>None</p> <p>No</p>
Air transport ICAO-TI and IATA-DGR: ICAO/IATA Class:	<p>None</p>
Special precautions for user Transport/Additional information: Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	<p>Not applicable.</p> <p>Not dangerous according to the above specifications.</p> <p>Not applicable.</p>

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture	
Labelling according to Regulation (EC) No 1272/2008 Hazard pictograms Signal word Hazard statements National regulations	<p>Not applicable</p> <p>Not applicable</p> <p>Not applicable</p> <p>Not applicable</p>
Information about limitation of use: Water hazard class: Chemical safety assessment:	<p>For use only by technically qualified individuals.</p> <p>Water hazard class 1 (Self-assessment): slightly hazardous for water.</p> <p>A Chemical Safety Assessment has not been carried out.</p>

16 Other information

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Department issuing data specification sheet: Health, Safety and Environmental Department.
Contact: Zachariah C. Holt

Abbreviations and acronyms: Global EHS Manager
 ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
 ICAO: International Civil Aviation Organization
 ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
 GHS: Globally Harmonized System of Classification and Labelling of Chemicals
 EINECS: European Inventory of Existing Commercial Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)