according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU

#### Iron(III) chloride solution 40 %

article number: RKFM1 Version: **2.0 en** 

Replaces version of: 2016-12-01

Version: (1)



date of compilation: 2016-12-01

. Revision: 2021-05-25

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

#### 1.1 Product identifier

Identification of the substance Iron(III) chloride solution 40%

Article number RKFM1

Registration number (REACH) not relevant (mixture)

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

Identified uses: laboratory chemical

laboratory and analytical use

1.3 Details of the supplier of the safety data sheet

Laboratoriumdiscounter Zandvoortstraat 75 1976BN Ijmuiden Nederland

**Telephone:** +31 (0) 255 700 210 **e-mail:** <u>info@laboratoriumdiscounter.nl</u> **Website:** www.laboratoriumdiscounter.nl

Competent person responsible for the safety data

sheet:

: Department Health, Safety and Environment

e-mail (competent person): <u>info@laboratoriumdiscounter.nl</u>

1.4 Emergency telephone number

Name	Street	Postal code/ city	Telephone	Website
National Poisons Inform- ation Service City Hospital	Dudley Rd	B187QH Birm- ingham	844 892 0111	

Emergency information service

+49/(0)89 19240

## SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

#### Classification acc. to GHS

Section	Hazard class	Hazard class and cat- egory	Hazard state- ment
2.16	substance or mixture corrosive to metals	(Met. Corr. 1)	H290
3.10	acute toxicity (oral)	(Acute Tox. 4)	H302
3.2	skin corrosion/irritation	(Skin Irrit. 2)	H315
3.3	serious eye damage/eye irritation	(Eye Dam. 1)	H318

United Kingdom (en) Page 1 / 17

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU

### Iron(III) chloride solution 40 %

article number: RKFM1



### Laboratoriumdiscounter

#### Classification acc. to GHS

Section	Hazard class	Hazard class and cat- egory	Hazard state- ment
3.4\$	skin sensitisation	(Skin Sens. 1)	H317

#### 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

Signal word Danger

#### **Pictograms**

GHS05, GHS07



#### **Hazard statements**

H290	May be corrosive to metals
H302	Harmful if swallowed
H315	Causes skin irritation

H317 May cause an allergic skin reaction H318 Causes serious eve damage

#### **Precautionary statements**

#### **Precautionary statements - prevention**

P280 Wear protective gloves/eye protection.

#### **Precautionary statements - response**

IF ON SKIN: Wash with plenty of water. P302+P352

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact P305+P351+P338

lenses, if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER/doctor. P310

Hazardous ingredients for labelling: Iron(III) chloride, Hydrochloric acid .....%

Labelling of packages where the contents do not exceed 125 ml

Signal word: Danger

#### Symbol(s)



H317 May cause an allergic skin reaction. H318 Causes serious eyedamage.

P280 Wearprotectivegloves/eyeprotection. P302+P352 IF ON SKIN: Wash with plenty of water.

 $P305 + P351 + P338 \ IF IN \ EYES: Rinse \ cautiously \ with \ water for several \ minutes. \ Remove \ contact \ lenses, if \ present \ and \ easy to$ 

do. Continue rinsing. Immediately call a POISON CENTER/doctor. P310 Iron(III) chloride, Hydrochloric acid..... % contains:

#### 2.3 Other hazards

There is no additional information.

United Kingdom (en) Page 2 / 17

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU

### Iron(III) chloride solution 40 %

article number: RKFM1



## **SECTION 3: Composition/information on ingredients**

#### **Mixtures** 3.2

#### Description of the mixture

Composition/information on ingredients.

Name of sub- stance	Identifier	wt %	Classification acc. to 1272/2008/EC	Pictograms	Note s	Specific Conc. Limits
Iron(III) chloride	CAS No 7705-08-0 EC No 231-729-4 REACH Reg. No 01-2119497998- 05-xxxx	39- 41	Met.Corr.1/H290 AcuteTox.4/H302 Skin Irrit.2/H315 EyeDam.1/H318 SkinSens.1/H317	<b>₹</b>		
Hydrochloric acid %	CAS No 7647-01-0 EC No 231-595-7 Index No 017-002-01- X REACH Reg. No 01-2119484862- 27-****	≤1	Met.Corr.1/H290 SkinCorr.1B/H314 Eye Dam. 1 / H318 STOTSE3/H335	<b>!</b>	B(a) GHS- HC IOELV	Met.Corr.1;H290: C ≥ 0,1% SkinCorr.1B;H314: C ≥ 25% SkinIrrit.2;H315: 10 % ≤ C < 25 % EyeDam.1;H318: C ≥ 25% Eye Irrit. 2; H319: 10 % ≤ C < 25 % STOTSE3;H335:C ≥ 10 %

Notes B(a):

The classification refers to an aqueous solution

GHS-HC:

Harmonised classification (the classification of the substance corresponds to the entry in the list according to 1272/2008/EC, Annex VI)
Substance with a community indicative occupational exposure limit value

IOELV:

#### Remarks

For full text of Hazard- and EU Hazard-statements: see SECTION 16.

### **SECTION 4: First aid measures**

#### 4.1 Description of first aid measures



#### **General notes**

Take off immediately all contaminated clothing.

#### Following inhalation

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

#### Following skin contact

Rinse skin with water/shower. In case of skin reactions, consult a physician. In case of skin irritation, consult a physician.

#### Following eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Protect uninjured eye.

United Kingdom (en) Page 3 / 17

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU

#### Iron(III) chloride solution 40 %

article number: RKFM1



### Laboratoriumdiscounter

#### Following ingestion

Rinse mouth immediately and drink plenty of water. Rinse mouth with water (only if the person is conscious). Call a physician immediately.

### 2. Most important symptoms and effects, both acute and delayed

Irritation, Corrosion, Allergic reactions, Nausea, Vomiting, Risk of serious damage to eyes

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

none

### **SECTION 5: Firefighting measures**

#### 5.1 Extinguishing media



### Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings water spray, foam, dry extinguishing powder, carbon dioxide (CO<sub>2</sub>)

#### Unsuitable extinguishing media

water jet

#### 2. Special hazards arising from the substance or mixture

Non-combustible.

#### **Hazardous combustion products**

in case of fire and/or explosion do not breathe fumes

#### 3. Advice for firefighters

Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus. Wear full chemical protective clothing.

### **SECTION 6: Accidental release measures**

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



### For non-emergency personnel

Do not breathe vapour/spray. Avoid contact with skin and eyes.

### 2. Environmental precautions

Keep away from drains, surface and ground water. The product is an acid. Before discharge into sewage plants the product normally needs to be neutralised.

#### 3. Methods and material for containment and cleaning up

#### Advice on how to contain a spill

Covering of drains.

### Advice on how to clean up a spill

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

United Kingdom (en) Page 4 / 17

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU

#### Iron(III) chloride solution 40 %

article number: RKFM1



### Laboratoriumdiscounter

#### Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

#### Reference to other sections 6.4

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

## SECTION 7: Handling and storage

#### 1. Precautions for safe handling

Provide adequate ventilation. Avoid exposure. Handle and open container with care.

#### Advice on general occupational hygiene

Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs.

#### 2. Conditions for safe storage, including any incompatibilities

Keep only in the original container. Keep container tightly closed.

#### Incompatible substances or mixtures

Observe hints for combined storage.

#### Consideration of other advice

Ventilation requirements

Use local and general ventilation.

#### · Specific designs for storage rooms or vessels

Recommended storage temperature: 15 - 25 °C.

#### 3. Specific end use(s)

No information available.

## SECTION 8: Exposurecontrols/personal protection

#### 8.1 **Control parameters**

TWA

#### **National limit values**

#### Occupational exposure limit values (Workplace Exposure Limits)

Co u ntr y	Name of agent	CAS No	Nota- tion	Identi- fier	TW A [pp m]	TWA [mg/ m³]	ST E L [pp m]	STEL [mg/ m³]	Ceil- ing-C [ppm ]	Ceil- ing-C [mg/ m³]	Source
EU	hydrogen chloride	7647- 01-0		IOELV	5	8	10	15			2000/3 9/ EC
GB	hydrogen chloride	7647- 01-0	ga	WEL	1	2	5	8			EH40 /
Notati	on										2005

Ceiling-C Ceiling value is a limit value above which exposure should not occur

As gases and aerosols
Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15ga STEL

minute period (unless otherwise specified)
Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8

hours time-weighted average (unless otherwise specified)

United Kingdom (en) Page 5 / 17

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU

#### Iron(III) chloride solution 40 %

article number: RKFM1



### Laboratoriumdiscounter

#### Relevant DNELs/DMELs/PNECs and other threshold levels

#### relevant DNELs of components of themixture

Name of sub- stance	CAS No	End- point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Iron(III) chloride	7705-08- 0	DNEL	2,8 mg/kg bw/ day	human, dermal	worker (in- dustry)	chronic - systemic ef- fects
Hydrochloric acid %	7647-01- 0	DNEL	8 mg/m³	human, inhalatory	worker (in- dustry)	chronic - local effects
Hydrochloric acid %	7647-01- 0	DNEL	15 mg/m³	human, inhalatory	worker (in- dustry)	acute - local effects

#### 8.2 Exposure controls

Individual protection measures (personal protective equipment)

#### Eye/face protection





Use safety goggle with side protection.

#### Skin protection





#### hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The times are approximate values from measurements at 22 °C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a considerable reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times larger/smaller layer thickness, the respective breakthrough time is doubled/halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a quide.

#### type of material

NBR (Nitrile rubber)

material thickness

≥0,3 mm

#### breakthrough times of the glove material

>480 minutes (permeation: level 6)

#### other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

#### Respiratory protection





United Kingdom (en) Page 6 / 17

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU

### Iron(III) chloride solution 40 %

article number: RKFM1



Respiratory protection necessary at: Aerosol or mist formation. Type: B-P2 (combined filters for acidic gases and particles, colour code: Grey/White).

#### **Environmental exposure controls**

Keep away from drains, surface and ground water.

### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

**Appearance** 

Physical state liquid (fluid)
Colour dark brown
Odour stinging

Odour threshold no data available

Other physical and chemical parameters

pH (value) <1
Melting point/freezing point -12 °C

Initial boiling point and boiling range this information is not available

Flash point not determined

Evaporation rate no data available

Flammability(solid, gas) not relevant (fluid)

**Explosive limits** 

lower explosion limit (LEL)upper explosion limit (UEL)this information is not available

Explosion limits of dust clouds not relevant

Vapour pressure this information is not available

Density  $1,39 - 1,45 \, {}^{9}/{}_{cm^3}$  at 20  ${}^{\circ}$ C

Vapour density this information is not available

Bulk density Not applicable

Relative density this information is not available

Solubility(ies)

Water solubility miscible in any proportion

Partition coefficient

n-octanol/water (log KOW) this information is not available

Auto-ignition temperature Information on this property is not available.

Decomposition temperature no data available

Viscosity

• kinematic viscosity  $6,897 \, ^{\text{mm}^2}/_{\text{s}}$  at 20 °C • dynamic viscosity  $10 \, \text{mPa}$  s at 20 °C

United Kingdom (en) Page 7 / 17

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU

#### Iron(III) chloride solution 40 %

article number: RKFM1

Explosive properties Shall not be classified as explosive.

Oxidising properties none

#### 9.2 Other information

There is no additional information.

## SECTION 10: Stability and reactivity

### 1. Reactivity

Substance or mixture corrosive to metals.

#### 2. Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

#### 3. Possibility of hazardous reactions

Violent reaction with: Alkalis, Metals

#### 4. Conditions to avoid

Keep away from heat.

#### 5. Incompatible materials

different metals

#### Release of flammable materials with

metals (due to the release of hydrogen in an acid/alkaline medium)

### 6. Hazardous decomposition products

Hazardous combustion products: see section 5.

## SECTION 11: Toxicological information

#### 1. Information on toxicological effects

### **Acute toxicity**

#### Acute toxicity of components of themixture

Name of substance	CAS No	Exposure route	ATE
Iron(III) chloride	7705-08-0	oral	500 <sup>mg</sup> /kg

#### Skin corrosion/irritation

Causes skin irritation.

#### Serious eye damage/eye irritation

Causes serious eye damage.

#### Respiratory or skin sensitisation

May cause an allergic skin reaction. May cause sensitization by skin contact.

#### Summary of evaluation of the CMR properties

Shall not be classified as germ cell mutagenic, carcinogenic nor as a reproductive toxicant

#### · Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

· Specific target organ toxicity - repeatedexposure

United Kingdom (en) Page 8 / 17



#### Laboratoriumdiscounter

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU

### Iron(III) chloride solution 40 %

article number: RKFM1



Shall not be classified as a specific target organ toxicant (repeated exposure).

#### **Aspiration hazard**

Shall not be classified as presenting an aspiration hazard.

#### Symptoms related to the physical, chemical and toxicological characteristics

#### If swallowed

nausea, vomiting, Liver and kidney damage

#### • If in eyes

Causes serious eye damage, risk of blindness

#### If inhaled

irritant effects

#### • If on skin

causes skin irritation, may cause an allergic skin reaction

#### Other information

None

## SECTION 12: Ecological information

#### 1. Toxicity

acc. to 1272/2008/EC: Shall not be classified as hazardous to the aquatic environment.

#### 2. Process of degradability

The methods for determining the biological degradability are not applicable to inorganic substances.

#### 3. Bioaccumulative potential

Data are not available.

#### Bioaccumulative potential of components of the mixture

Name of sub- stance	CAS No	BCF	Log KOW	BOD5/COD
Iron(III) chloride	7705-08-0		-4 (24 °C)	_

### 4. Mobility in soil

Data are not available.

#### 5. Results of PBT and vPvB assessment

Data are not available.

#### 6. Other adverse effects

Data are not available.

United Kingdom (en) Page 9 / 17

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU

#### Iron(III) chloride solution 40 %

article number: RKFM1



## **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods



This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

#### Sewage disposal-relevant information

Do not empty into drains.

#### Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used.

#### 2. Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

#### 3. Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

### **SECTION 14: Transport information**

1. UN number **2582** 

2. UN proper shipping name FERRIC CHLORIDE SOLUTION
Hazardous ingredients Iron(III) chloride, Hydrochloric acid .....%

3. Transport hazard class(es)

Class 8 (corrosive substances)

4. Packing group III(substance presenting low danger)

5. Environmental hazards none (non-environmentally hazardous acc. to the dangerous goods regulations)

#### 6. Special precautions for user

Provisions for dangerous goods (ADR) should be complied within the premises.

#### 7. Transport in bulk according to Annex II of MARPOL and the IBC Code

The cargo is not intended to be carried in bulk.

### 8. Information for each of the UN Model Regulations

#### • Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)

UN number 2582

Proper shipping name FERRIC CHLORIDE SOLUTION

Particulars in the transport document UN2582, FERRIC CHLORIDE SOLUTION, 8, III, (E)

Class 8

Classification code C1

UnitedKingdom(en) Page 10 / 17

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU

### Iron(III) chloride solution 40 %

article number: RKFM1

Packing group III

Danger label(s) 8



Excepted quantities (EQ) E1
Limited quantities (LQ) 5 L
Transport category (TC) 3
Tunnel restriction code (TRC) E
Hazard identification No 80
Emergency Action Code 2X

#### International Maritime Dangerous Goods Code (IMDG)

UN number 2582

Proper shipping name FERRIC CHLORIDE SOLUTION

Particulars in the shipper's declaration UN2582, FERRIC CHLORIDE SOLUTION, 8, III

Class 8

Marine pollutant -

Packing group III

Dangerlabel(s) 8



Special provisions (SP) 223
Excepted quantities (EQ) E1
Limited quantities(LQ) 5L

EmS F-A, S-B

Stowage category A

Segregation group 1 - Acids

### • International Civil Aviation Organization (ICAO-IATA/DGR)

UN number 2582

Proper shipping name Ferric chloride solution

Particulars in the shipper's declaration UN2582, Ferric chloride solution, 8, III

Class 8

Packinggroup III
Dangerlabel(s) 8

United Kingdom (en) Page 11 / 17



#### Laboratoriumdiscounter

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU

#### Iron(III) chloride solution 40 %

article number: RKFM1



Laboratoriumdiscounter



Special provisions (SP) **A3** Excepted quantities (EQ) E1 Limited quantities (LQ) 1 L

### SECTION 15: Regulatory information

- 1. Safety, health and environmental regulations/legislation specific for the substance or mixture Relevant provisions of the European Union (EU)
  - Regulation 649/2012/EU concerning the export and import of hazardous chemicals (PIC) None of the ingredients are listed.
  - Regulation 1005/2009/EC on substances that deplete the ozone layer (ODS) None of the ingredients are listed.
  - Regulation 850/2004/EC on persistent organic pollutants (POP)

None of the ingredients are listed.

Restrictions according to REACH, Annex XVII

Name of substance	Type of registration	Conditions of re- striction	No
Iron(III) chloride solution	1907/2006/EC annex XVII	R3	3

#### Legend

R3

- Shall not be used in:
- -ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,

tricks and jokes

- games for one or more participants, or any article intended to be used as such, even with ornamental aspects, 2. Articles not complying with paragraph 1 shall not be placed on the market.
- 3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or per-

fume, or both, if they:
- can be used as fuel in decorative oil lamps for supply to the general public, and,
- present an aspiration hazard and are labelled with R65 or H304,

4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisa-

5. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:

(a)lamp oils, labelled with R65 or H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: 'Keep lamps filled with this liquid out of the reach of children'; and, by 1 December 2010, 'Just a

sip of lamp oil - or even sucking the wick of lamps - may lead to life-threatening lung damage'; (b)grill lighter fluids, labelled with R65 or H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: 'Just a sip of grill lighter may lead to life threatening lung damage'; (c)lamp oils and grill lighters, labelled with R65 or H304, intended for supply to the general public are packaged in

black opaque containers not exceeding 1 litre by 1 December 2010.

6. No later than 1 June 2014, the Commission shall request the European Chemicals Agency to prepare a dossier,

in accordance with Article 69 of the present Regulation with a view to ban, if appropriate, grill lighter fluids and fuel for decorative lamps, labelled R65 or H304, intended for supply to the general public.

7. Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with R65 or H304, shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled R65 or H304 to the competent authority in the Member State concerned. Member States shall make those data available to the Commission.

Name acc. to inventory	CAS No	Wt%	Listed in	Remarks
Metals and their compounds		40	A)	

#### Legend

Indicative list of the main pollutants

United Kingdom (en) Page 12 / 17

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU

### Iron(III) chloride solution 40 %

article number: RKFM1



- Restrictions according to REACH, Title VIII
- None.
- List of substances subject to authorisation (REACH, Annex XIV)/SVHC candidate list none of the ingredients are listed
- Seveso Directive

2012	18/EU (Seveso III)							
No	Dangerous substance/hazard categories	Qualifying quantity (tonnes) for the application of lower and upper-tier requirements	Notes					
	not assigned							

#### Directive 75/324/EEC relating to aerosol dispensers

#### Filling batch

Deco-Paint Directive (2004/42/EC)

2000 Tallit 211001170 (2004/42/20)		
VOC content	0% 0 <sup>g</sup> /l	
Directive on industrial emissions (VOCs, 2010/75/EU)		
VOC content	0 %	
VOC content Water content was discounted	0 <sup>g</sup> / <sub>l</sub>	

Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) - Annex II

None of the ingredients are listed.

Regulation 166/2006/EC concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

None of the ingredients are listed.

# Directive 2000/60/EC establishing a framework for Community action in the field of water policy (WFD)

Name acc. to inventory	CAS No	Listed in	Remarks
Metals and their compounds		A)	

#### Legend

A) Indicative list of the main pollutants

## Regulation 98/2013/EU on the marketing and use of explosives precursors

none of the ingredients are listed

# $Regulation\,111/2005/EC\,laying\,down\,rules\,for the\,monitoring\,of\,trade\,between\,the\,Community\,and\,third\,countries\,in\,drug\,precursors$

Name of substance	CAS No	Classification	CN Code	Threshold level
Hydrochloricacid%	7647-01-0	Category 3	2806 10 00	

United Kingdom (en) Page 13 / 17

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU

#### Iron(III) chloride solution 40 %

article number: RKFM1



#### **National inventories**

Country	National inventories	Status
AU	AICS	all ingredients are listed
CA	DSL	all ingredients are listed
CN	IECSC	all ingredients are listed
EU	ECSI	all ingredients are listed
EU	REACH Reg.	all ingredients are listed
JP	CSCL-ENCS	all ingredients are listed
KR	KECI	all ingredients are listed
MX	INSQ	all ingredients are listed
NZ	NZIoC	all ingredients are listed
PH	PICCS	all ingredients are listed
TR	CICR	not all ingredients are listed
TW	TCSI	all ingredients are listed
US	TSCA	all ingredients are listed

AICS AustralianInventoryofChemicalSubstances
CICR Chemical Inventory and Control Regulation
CSCL-ENCS List of Existing and New Chemical Substances (CSCL-ENCS)
DSL Domestic Substances List(DSL)
ECSI EC Substance Inventory

IECSC INSQ

Inventory of Existing Chemical Substances Produced or Imported in China National Inventory of Chemical Substances
Korea Existing Chemicals Inventory
New Zealand Inventory of Chemicals

| Chemical Substance | Chemical Su NZIoC

**PICCS**  $Philippine Inventory of Chemicals \ and \ Chemical Substances \ (PICCS)$ 

REACH Reg. REACH registered substances
TCSI Taiwan Chemical Substance Inventory
TSCA Toxic Substance Control Act

#### 15.2 **Chemical Safety Assessment**

Chemical safety assessments for substances in this mixture were not carried out.

### SECTION 16: Other information

#### Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)	Safety- relev- ant
2.1	Remarks: For full text of Hazard- and EU Hazard-state- ments: see SECTION 16.		yes
2.2		Pictograms: change in the listing (table)	yes
2.2	Hazardous ingredients for labelling: Iron(III) chloride	Hazardous ingredients for labelling: Iron(III) chloride, Hydrochloric acid%	yes
2.2	contains: Iron(III) chloride	contains: Iron(III) chloride, Hydrochloric acid%	yes
3.2		Description of the mixture: change in the listing (table)	yes

United Kingdom (en) Page 14 / 17

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU

### Iron(III) chloride solution 40 %

article number: RKFM1



## Laboratoriumdiscounter

Section	Former entry (text/value)	Actual entry (text/value)	Safety- relev- ant
8.1	Occupational exposure limit values (Workplace Exposure Limits): Data are not available.	Occupationalexposurelimitvalues(Workplace Exposure Limits)	yes
8.1		Occupationalexposurelimitvalues(Workplace Exposure Limits): change in the listing (table)	yes
8.1		· relevant DNELs of components of the mixture: change in the listing (table)	yes
14.2	Hazardous ingredients: Iron(III) chloride	Hazardous ingredients: Iron(III) chloride, Hydrochloric acid%	yes
14.3	Transport hazard class(es)	Transport hazard class(es): class 8 hazard - corrosive substances	yes
14.8		Marine pollutant:	yes
14.8	Packing group: III8	Packing group: III	yes
14.8		Danger label(s): 8	yes

### Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
2000/39/EC	Commission Directive establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC
Acute Tox.	acute toxicity
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
ATE	Acute Toxicity Estimate
BCF	bioconcentration factor
BOD	Biochemical Oxygen Demand
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	ceiling value
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
CMR	Carcinogenic, Mutagenic or toxic for Reproduction
CN Code	Combined Nomenclature
COD	chemical oxygen demand
DGR	Dangerous Goods Regulations (see IATA/DGR)
DMEL	Derived Minimal Effect Level
DNEL	Derived No-Effect Level
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
EH40/2005	EH40/2005 Workplace exposure limits (http://www.nationalarchives.gov.uk/doc/open-government-licence/)

United Kingdom (en) Page 15 / 17

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU

### Iron(III) chloride solution 40 %

article number: RKFM1



### Laboratoriumdiscounter

Abbr.	Descriptions of used abbreviations
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
Eye Dam.	seriously damaging to the eye
Eye Irrit.	irritant to the eye
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
index No	the Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
IOELV	indicative occupational exposure limit value
log KOW	n-octanol/water
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
Met. Corr.	substance or mixture corrosive to metals
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
Skin Corr.	corrosive to skin
Skin Irrit.	irritant to skin
Skin Sens.	skin sensitisation
STEL	short-term exposure limit
STOT SE	specific target organ toxicity - single exposure
SVHC	Substance of Very High Concern
TWA	time-weighted average
VOC	Volatile Organic Compounds
vPvB	very Persistent and very Bioaccumulative
	workplace exposure limit

#### Key literature references and sources for data

- Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU Regulation (EC) No. 1272/2008 (CLP, EU GHS) Dangerous Goods Regulations (DGR) for the air transport (IATA)

- International Maritime Dangerous Goods Code (IMDG)

United Kingdom (en) Page 16 / 17

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU

Iron(III) chloride solution 40 %

article number: RKFM1



#### List of relevant phrases (code and full text as stated in chapter 2 and 3)

Code	Text
H290	may be corrosive to metals
H302	harmful if swallowed
H314	causes severe skin burns and eye damage
H315	causes skin irritation
H317	may cause an allergic skin reaction
H318	causes serious eye damage
H335	may cause respiratory irritation

#### **Disclaimer**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

United Kingdom (en) Page 17 / 17