

Safety data sheet

Page: 1/45

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

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

1.1. Product identifier

Iron trichloride solution (FeCl₃)

UFI: UCTA-48CS-T00H-WNW6

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

Relevant identified uses: Chemical

Recommended use: process chemical, flocculation agent, Water purification

For the detailed identified uses of the product see appendix of the safety data sheet.

1.3. Details of the supplier of the safety data sheet

Company:

BASF SE

67056 Ludwigshafen

GERMANY

Division Monomers

Telephone: +49 621 60 42737

E-mail address: pss.monomers@basf.com

1.4. Emergency telephone number

International emergency number:

Telephone: +49 180 2273-112

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

For the classification of the mixture the following methods have been applied: extrapolation on the concentration levels of the hazardous substances, on basis of test results and after evaluation of experts. The methodologies used are mentioned at the respective test results.

According to Regulation (EC) No 1272/2008 [CLP]

Met. Corr. 1

H290 May be corrosive to metals.

| Eye Dam. 1

H318 Causes serious eye damage.

For the classifications not written out in full in this section the full text can be found in section 16.

2.2. Label elements

According to Regulation (EC) No 1272/2008 [CLP]

Pictogram:



Signal Word:

Danger

Hazard Statement:

H290

May be corrosive to metals.

H318

Causes serious eye damage.

Precautionary Statements (Prevention):

P280

Wear eye and face protection.

P234

Keep only in original packaging.

Precautionary Statements (Response):

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 or physician.

P390

Absorb spillage to prevent material damage.

Precautionary Statements (Storage):

| P406

Store in a corrosion-resistant container with a resistant inner liner.

Hazard determining component(s) for labelling: Iron trichloride

2.3. Other hazards

According to Regulation (EC) No 1272/2008 [CLP]

No specific dangers known, if the regulations/notes for storage and handling are considered. If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

The product does not contain a substance above legal limits fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria. Product does not contain a substance above legal limits included in the list established in accordance with Article 59(1) of Regulation (EC) No 1907/2006 for having endocrine disrupting properties or is identified to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/Information on Ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Chemical nature

Iron trichloride
dissolved in: Water

Contains: inorganic metal salts, Manganese dichloride (Content (W/W): < 0,5 %), nickel dichloride (Content (W/W): < 0,01 %)

Regulatory relevant ingredients

Iron trichloride

Content (W/W): 40 %	Acute Tox. 4 (oral)
CAS Number: 7705-08-0	Skin Corr./Irrit. 2
EC-Number: 231-729-4	Eye Dam./Irrit. 1
REACH registration number: 01-2119497998-05	H318, H315, H302

For the classifications not written out in full in this section, including the hazard classes and the hazard statements, the full text is listed in section 16.

SECTION 4: First-Aid Measures

4.1. Description of first aid measures

Immediately remove contaminated clothing. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position).

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

On skin contact:

Immediately wash thoroughly with soap and water, seek medical attention.

On contact with eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open.

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

On ingestion:

Rinse mouth and then drink 200-300 ml of water. Immediate medical attention required.

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

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.

skin irritation, irritates the eyes and respiratory tract

Hazards: No hazard is expected under intended use and appropriate handling.

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

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing media

Suitable extinguishing media:
water spray

Unsuitable extinguishing media for safety reasons:
water jet

5.2. Special hazards arising from the substance or mixture

Endangering substances: hydrogen chloride

Advice: The substances/groups of substances mentioned can be released in case of fire.

5.3. Advice for fire-fighters

Special protective equipment:
Wear a self-contained breathing apparatus.

Further information:

Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Contaminated extinguishing water must be disposed of in accordance with official regulations. Product itself is non-combustible; fire extinguishing method of surrounding areas must be considered.

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

SECTION 6: Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with eyes.

6.2. Environmental precautions

Due to the pH-value of the product, neutralization is generally required before discharging sewage into treatment plants. Do not discharge into waterways or sewer systems without proper authorization.

6.3. Methods and material for containment and cleaning up

For small amounts: Rinse away with water.

For large amounts: Neutralize with lime.

For residues: Dispose of contaminated material as prescribed.

6.4. Reference to other sections

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

SECTION 7: Handling and Storage

7.1. Precautions for safe handling

Protection against fire and explosion:

The substance/product is non-combustible.

7.2. Conditions for safe storage, including any incompatibilities

Segregate from metals. Segregate from reducing agents.

Suitable materials for containers: High density polyethylene (HDPE), Low density polyethylene (LDPE), Polyester resin, glass reinforced (Palatal A410), rubberized, glass

Unsuitable materials for containers: Aluminium, Carbon steel (Iron), Stainless steel 1.4541, Stainless steel 1.4571

Further information on storage conditions: Keep in a cool place.

Storage class according to TRGS 510 (originally VCI, Germany): (12) Non-combustible liquids

Protect from temperatures below: -12 °C

7.3. Specific end use(s)

See exposure scenario(s) in the attachment to this safety data sheet.

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

SECTION 8: Exposure Controls/Personal Protection

8.1. Control parameters

Components with occupational exposure limits

No occupational exposure limits known.

PNEC

A PNEC could not be derived as the substance showed no toxic effects in studies performed in the range of its solubility. At the present state of knowledge, no negative ecological effects are expected.

No PNEC oral derived, as accumulation in organisms is not to be expected.

Components with DNEL

7705-08-0: Iron trichloride

worker: Long-term exposure- systemic effects, dermal: 2,8 mg/kg

worker: Long- and short-term exposure - systemic effects, Inhalation

No DNELs have been derived.

consumer: Long-term exposure- systemic effects, dermal: 1,4 mg/kg

consumer: Long- and short-term exposure - systemic effects, Inhalation

No DNELs have been derived.

consumer: Long-term exposure- systemic effects, oral: 0,28 mg/kg

consumer: Short-term exposure - systemic effects, oral: 20 mg/kg

8.2. Exposure controls

Personal protective equipment

Respiratory protection:

Breathing protection if gases/vapours are formed. Gas filter for acid inorganic gases/vapours such as SO₂, HCl (e.g. EN 14387 Type E).

Hand protection:

Chemical resistant protective gloves (EN ISO 374-1)

Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1):

polyvinylchloride (PVC) - 0.7 mm coating thickness

fluoroelastomer (FKM) - 0.7 mm coating thickness

butyl rubber (butyl) - 0.7 mm coating thickness

chloroprene rubber (CR) - 0.5 mm coating thickness

nitrile rubber (NBR) - 0.4 mm coating thickness

Manufacturer's directions for use should be observed because of great diversity of types.

Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.

Eye protection:

Tightly fitting safety goggles (cage goggles) (e.g. EN 166) and face shield.

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures

Hands and/or face should be washed before breaks and at the end of the shift. Take off immediately all contaminated clothing.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

State of matter:	liquid	
Form:	liquid	
Colour:	brown	
Odour:	odourless	
Odour threshold:	not applicable, odour not perceivable	
crystallization temperature:	-12 °C	
	Literature data.	
Boiling point:	> 100 °C	
	(1.013 bar)	
	Literature data.	
Flammability:	not flammable, not self-igniting	(derived from flash point)
Lower explosion limit:	For liquids not relevant for classification and labelling.	
Upper explosion limit:	For liquids not relevant for classification and labelling.	
Flash point:	not applicable, Aqueous preparation	
Auto-ignition temperature:	not applicable	
Thermal decomposition:	To avoid thermal decomposition, do not overheat.	
pH value:	1	(OECD Guideline 122)
	(40 %(m), 20 °C)	
Viscosity, kinematic:	not determined	
Viscosity, dynamic:	10 mPa.s	
	(40 %(m), 20 °C)	
	Literature data.	
Solubility in water:	soluble	
<i>Information on: iron trichloride</i>		
<i>Partitioning coefficient n-octanol/water (log Kow): -4</i>		
	(24 °C)	

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

Vapour pressure: < 23 mbar
(20 °C)
Literature data.
< 100 mbar
(50 °C)
Literature data.

Density: 1.430 kg/m³ (OECD Guideline 109)
(20 °C)

Relative vapour density (air):
not determined

Particle characteristics

Particle size distribution: The substance / product is marketed or used in a non solid or granular form. -

9.2. Other information

Information with regard to physical hazard classes

Explosives

Explosion hazard: not explosive

Oxidizing properties

Fire promoting properties: not fire-propagating

Corrosion to metals

Corrosive effect on metals. - Corrosion rate > 6.25 mm/a using a Type 3 test steel. - Corrosion rate > 6.25 mm/a using 7075-T6 or AZ5GU-T6
- The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Other safety characteristics

Miscibility with water:
(15 °C)
completely (e.g. >=90%)

Evaporation rate:
negligible, Value can be approximated from Henry's Law Constant or vapor pressure.

SECTION 10: Stability and Reactivity

10.1. Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

Corrosion to metals: Corrosive effect on metals. Corrosion rate > 6.25 mm/a using a Type 3 test steel. Corrosion rate > 6.25 mm/a using 7075-T6 or AZ5GU-T6 The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

10.2. Chemical stability

The product is stable if stored and handled as prescribed/indicated.

10.3. Possibility of hazardous reactions

No hazardous reactions when stored and handled according to instructions.
The product is chemically stable.

10.4. Conditions to avoid

Avoid heat.

10.5. Incompatible materials

Substances to avoid:
metal

10.6. Hazardous decomposition products

Hazardous decomposition products:
hydrogen chloride

SECTION 11: Toxicological Information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Assessment of acute toxicity:

Virtually nontoxic after a single ingestion. Inhalation-risk test (IRT): No mortality within 8 hours as shown in animal studies. The inhalation of a highly saturated vapor-air mixture represents no acute hazard.

Experimental/calculated data:

LD50 rat (oral): approx. 2.900 mg/kg (BASF-Test)

Irritation

Assessment of irritating effects:

Not irritating to the skin. Risk of serious damage to eyes.

Experimental/calculated data:

Skin corrosion/irritation

rabbit: non-irritant (BASF-Test)

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

Serious eye damage/irritation
rabbit: irreversible damage (BASF-Test)

Respiratory/Skin sensitization

Assessment of sensitization:

No reliable data were available concerning sensitization. A sensitizing effect on particularly sensitive individuals cannot be excluded.

Germ cell mutagenicity

Assessment of mutagenicity:

No mutagenic effect was found in various tests with bacteria and mammalian cell culture.

Experimental/calculated data:

Mouse lymphoma assay
negative

The data on toxicology refer to the active ingredient.

Information on: Iron trichloride

Assessment of mutagenicity:

The substance was not mutagenic in bacteria. The substance was not mutagenic in mammalian cell culture. The substance was not mutagenic in studies with mammals.

Carcinogenicity

Assessment of carcinogenicity:

Based on available data, the classification criteria are not met.

Information on: Iron trichloride

Assessment of carcinogenicity:

The whole of the information assessable provides no indication of a carcinogenic effect.

Reproductive toxicity

Assessment of reproduction toxicity:

Not classified, due to lack of data.

Information on: Iron trichloride

Assessment of reproduction toxicity:

No reliable data are available concerning reproduction toxicity. The chemical structure does not suggest a specific alert for such an effect.

Developmental toxicity

Assessment of teratogenicity:

In animal studies the substance did not cause malformations.

Information on: Iron trichloride

Assessment of teratogenicity:

No indications of a developmental toxic / teratogenic effect were seen in animal studies.

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

Specific target organ toxicity (single exposure)

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:

Repeated exposure to large quantities may affect certain organs.

Information on: Iron trichloride

Assessment of repeated dose toxicity:

The substance may cause damage to the kidney after repeated ingestion of high doses, as shown in animal studies. The substance may cause damage to the liver after repeated ingestion of high doses, as shown in animal studies.

Aspiration hazard

No aspiration hazard expected.

Interactive effects

No data available.

11.2. Information on other hazards

Endocrine disrupting properties

Product does not contain a substance above legal limits included in the list established in accordance with Article 59(1) of Regulation (EC) No 1907/2006 for having endocrine disrupting properties or is identified to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 12: Ecological Information

12.1. Toxicity

Assessment of aquatic toxicity:

At the present state of knowledge, no negative ecological effects are expected. The ecotoxicological effects are solely caused by the pH. The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Iron trichloride

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

Assessment of aquatic toxicity:

At the present state of knowledge, no negative ecological effects are expected. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

The product gives rise to pH shifts.

Information on:Iron trichloride

Toxicity to fish:

Study scientifically not justified.

Information on:Iron trichloride

Aquatic invertebrates:

Study scientifically not justified.

Information on:Iron trichloride

Microorganisms/Effect on activated sludge:

EC50 (5 min) 500 mg/l, activated sludge (other, aquatic)

12.2. Persistence and degradability

Assessment biodegradation and elimination (H₂O):

Inorganic product which cannot be eliminated from water by biological purification processes.

Elimination from water by precipitation or flocculation.

Information on:Iron trichloride

Assessment biodegradation and elimination (H₂O):

Not applicable for inorganic substances.

12.3. Bioaccumulative potential

Bioaccumulation potential:

Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

12.4. Mobility in soil

Assessment transport between environmental compartments:

Adsorption in soil: No data available. Study scientifically not justified.

12.5. Results of PBT and vPvB assessment

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

The product does not fulfill the criteria for PBT (Persistent/bioaccumulative/toxic) and vPvB (very persistent/very bioaccumulative).

12.6. Endocrine disrupting properties

Product does not contain a substance above legal limits included in the list established in accordance with Article 59(1) of Regulation (EC) No 1907/2006 for having endocrine disrupting properties or is identified to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

12.7. Other adverse effects

The substance is not listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

Additional information

Adsorbable organically-bound halogen (AOX):

The Substance/product may have a halogenizing effect and therefore contribute to the OBH.

Other ecotoxicological advice:

Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations. Due to the pH-value of the product, neutralization is generally required before discharging sewage into treatment plants.

SECTION 13: Disposal Considerations

13.1. Waste treatment methods

Must be disposed of by special means, e.g. suitable dumping after chemical/physical pretreatment (consolidation).

The local regulations on waste-water treatment must be followed.

Contaminated packaging:

Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

SECTION 14: Transport Information

Land transport

ADR

UN number or ID number: UN2582

UN proper shipping name: FERRIC CHLORIDE, SOLUTION

Transport hazard class(es): 8

Packing group: III

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

Environmental hazards: no
Special precautions for user: Tunnel code: E

RID

UN number or ID number: UN2582
UN proper shipping name: FERRIC CHLORIDE, SOLUTION

Transport hazard class(es): 8
Packing group: III
Environmental hazards: no
Special precautions for user: None known

Inland waterway transport

ADN

UN number or ID number: UN2582
UN proper shipping name: FERRIC CHLORIDE, SOLUTION

Transport hazard class(es): 8
Packing group: III
Environmental hazards: no
Special precautions for user: None known

Transport in inland waterway vessel

Not evaluated

Sea transport

IMDG

UN number or ID number: UN 2582
UN proper shipping name: FERRIC CHLORIDE, SOLUTION

Transport hazard class(es): 8
Packing group: III
Environmental hazards: no
Special precautions for user: Marine pollutant: NO
EmS: F-A; S-B

Air transport

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

IATA/ICAO

UN number or ID number: UN 2582

UN proper shipping name: FERRIC CHLORIDE SOLUTION

Transport hazard class(es): 8

Packing group: III

Environmental hazards: No Mark as dangerous for the environment is needed

Special precautions for user: None known

14.1. UN number or ID number

See corresponding entries for "UN number or ID number" for the respective regulations in the tables above.

14.2. UN proper shipping name

See corresponding entries for "UN proper shipping name" for the respective regulations in the tables above.

14.3. Transport hazard class(es)

See corresponding entries for "Transport hazard class(es)" for the respective regulations in the tables above.

14.4. Packing group

See corresponding entries for "Packing group" for the respective regulations in the tables above.

14.5. Environmental hazards

See corresponding entries for "Environmental hazards" for the respective regulations in the tables above.

14.6. Special precautions for user

See corresponding entries for "Special precautions for user" for the respective regulations in the tables above.

14.7. Maritime transport in bulk according to IMO instruments

Maritime transport in bulk is not intended.

SECTION 15: Regulatory Information

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

Prohibitions, Restrictions and Authorizations

Annex XVII of Regulation (EC) No 1907/2006: Number on List: 3

Hazardous Incident Ordinance (Germany):

Listed in above regulation: no

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

| Classification applies for standard conditions of temperature and pressure.

Directive 2012/18/EU - Control of Major Accident Hazards involving dangerous substances (EU):

Listed in above regulation: no

| Classification applies for standard conditions of temperature and pressure.

Water hazard class (§6 AwSV para.4 (Legal binding announcement of the substance in the Federal Gazette)): (1) Weakly water polluting.

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

15.2. Chemical Safety Assessment

Chemical Safety Assessment performed

SECTION 16: Other Information

This product is of industrial quality and unless otherwise specified or agreed intended exclusively for industrial use. Any other intended applications should be discussed with the manufacturer.

Full text of the classifications, including the hazard classes and the hazard statements, if mentioned in section 2 or 3:

Met. Corr.	Corrosive to metals
Eye Dam.	Serious eye damage
Acute Tox.	Acute toxicity
Skin Corr./Irrit.	Skin corrosion/irritation
Eye Dam./Irrit.	Serious eye damage/eye irritation
H290	May be corrosive to metals.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H302	Harmful if swallowed.

Abbreviations

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road.
 ADN = The European Agreement concerning the International Carriage of Dangerous Goods by Inland waterways. ATE = Acute Toxicity Estimates. CAO = Cargo Aircraft Only. CAS = Chemical Abstract Service. CLP = Classification, Labelling and Packaging of substances and mixtures. DIN = German national organization for standardization. DNEL = Derived No Effect Level. EC50 = Effective concentration median for 50% of the population. EC = European Community. EN = European Standards. IARC = International Agency for Research on Cancer. IATA = International Air Transport Association. IBC-Code = Intermediate Bulk Container code. IMDG = International Maritime Dangerous Goods Code. ISO = International Organization for Standardization. STEL = Short-Term Exposure Limit. LC50 = Lethal concentration median for 50% of the population. LD50 = Lethal dose median for 50% of the population. TLV = Threshold Limit Value. MARPOL = The International Convention for the Prevention of Pollution from Ships. NEN = Dutch Norm. NOEC = No Observed Effect Concentration. OEL = Occupational Exposure Limit. OECD = Organization for Economic Cooperation and Development. PBT = Persistent, Bioaccumulative and Toxic. PNEC = Predicted No Effect Level. PPM = Parts per million. RID = The

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

European Agreement concerning the International Carriage of Dangerous Goods by Rail. TWA = Time Weight Average. UN-number = UN number at transport. vPvB = very Persistent and very Bioaccumulative.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

Vertical lines in the left hand margin indicate an amendment from the previous version.

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

Annex: Exposure Scenarios

Index

1. Manufacture of substance, (liquid preparations)

IS; SU8, SU9; ERC1; PROC1, PROC2, PROC3, PROC4, PROC5, PROC7, PROC8b, PROC9, PROC10, PROC12, PROC13, PROC15

2. Industrial applications, (liquid preparations)

IS; SU8, SU9, SU10, SU13, SU14, SU15, SU16, SU19, SU24; ERC2, ERC4, ERC5, ERC6a, ERC6b, ERC8f, ERC10a; PROC1, PROC2, PROC3, PROC4, PROC5, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC12, PROC13, PROC15, PROC19

3. Professional applications, (handling as solid in solution)

PW; SU1, SU13, SU19, SU24; ERC8a, ERC8c, ERC8d, ERC8e, ERC8f, ERC10a; PROC5, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC15, PROC19

4. Use in Metal surface treatment, etching agent, Consumer applications

C; C; ERC2, ERC6b; PC14

1. Short title of exposure scenario

Manufacture of substance, (liquid preparations)

IS; SU8, SU9; ERC1; PROC1, PROC2, PROC3, PROC4, PROC5, PROC7, PROC8b, PROC9, PROC10, PROC12, PROC13, PROC15

Control of exposure and risk management measures

Contributing exposure scenario	
Use descriptors covered	All relevant process categories As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.
Contributing exposure scenario	
Use descriptors covered	PROC1: Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions. Use domain: industrial
Operational conditions	
Concentration of the substance	Iron trichloride Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance	0,000001 Pa

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

during use	
Process temperature	20 °C
Duration and Frequency of activity	480 min 5 days per week
Risk Management Measures	
Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.	
In case of potential exposure:, Use suitable chemically resistant gloves., Use suitable eye protection.	
In case no suitable local exhaust ventilation is present:, Wear suitable respiratory protection.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v3.6, Workplace measurements
	Worker - dermal, long-term - systemic
Exposure estimate	0,0017 mg/kg bw/day
Risk Characterization Ratio (RCR)	0,000607
Assessment method	Qualitative assessment
	Worker - inhalation

Contributing exposure scenario	
Use descriptors covered	PROC2: Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions Use domain: industrial
Operational conditions	
Concentration of the substance	Iron trichloride Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	0,000001 Pa
Process temperature	20 °C
Duration and Frequency of activity	480 min 5 days per week
Risk Management Measures	
Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.	
In case of potential exposure:, Use suitable chemically resistant gloves., Use suitable eye protection.	

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

In case no suitable local exhaust ventilation is present:, Wear suitable respiratory protection.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v3.6, Workplace measurements
	Worker - dermal, long-term - systemic
Exposure estimate	0,0034 mg/kg bw/day
Risk Characterization Ratio (RCR)	0,001214
Assessment method	Qualitative assessment
	Worker - inhalation

Contributing exposure scenario	
Use descriptors covered	PROC3: Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition Use domain: industrial
Operational conditions	
Concentration of the substance	Iron trichloride Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	0,000001 Pa
Process temperature	20 °C
Duration and Frequency of activity	480 min 5 days per week
Risk Management Measures	
Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.	
In case of potential exposure:, Use suitable chemically resistant gloves., Use suitable eye protection.	
In case no suitable local exhaust ventilation is present:, Wear suitable respiratory protection.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v3.6, Workplace measurements
	Worker - dermal, long-term - systemic
Exposure estimate	0,0017 mg/kg bw/day
Risk Characterization Ratio (RCR)	0,000607
Assessment method	Qualitative assessment
	Worker - inhalation

Contributing exposure scenario

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

Use descriptors covered	PROC4: Chemical production where opportunity for exposure arises Use domain: industrial
Operational conditions	
Concentration of the substance	Iron trichloride Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	0,000001 Pa
Process temperature	20 °C
Duration and Frequency of activity	480 min 5 days per week
Risk Management Measures	
Wear chemically resistant gloves in combination with 'basic' employee training.	Effectiveness: 90 %
Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.	
In case of potential exposure:, Use suitable chemically resistant gloves., Use suitable eye protection.	
In case no suitable local exhaust ventilation is present:, Wear suitable respiratory protection.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v3.6, Workplace measurements
	Worker - dermal, long-term - systemic
Exposure estimate	0,3429 mg/kg bw/day
Risk Characterization Ratio (RCR)	0,122464
Assessment method	Qualitative assessment
	Worker - inhalation

Contributing exposure scenario	
Use descriptors covered	PROC5: Mixing or blending in batch processes Use domain: industrial
Operational conditions	
Concentration of the substance	Iron trichloride Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	0,000001 Pa
Process temperature	20 °C

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

Duration and Frequency of activity	480 min 5 days per week
Risk Management Measures	
Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.	
In case of potential exposure:, Use suitable chemically resistant gloves., Use suitable eye protection.	
In case no suitable local exhaust ventilation is present:, Wear suitable respiratory protection.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v3.6, Workplace measurements
	Worker - dermal, long-term - systemic
Exposure estimate	0,0034 mg/kg bw/day
Risk Characterization Ratio (RCR)	0,001214
Assessment method	Qualitative assessment
	Worker - inhalation

Contributing exposure scenario	
Use descriptors covered	PROC7: Industrial spraying Use domain: industrial
Operational conditions	
Concentration of the substance	Iron trichloride Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	0,000001 Pa
Process temperature	20 °C
Duration and Frequency of activity	480 min 5 days per week
Risk Management Measures	
Wear chemically resistant gloves in combination with 'basic' employee training.	Effectiveness: 90 %
Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.	
In case of potential exposure:, Use suitable chemically resistant gloves., Use suitable eye protection.	
In case no suitable local exhaust	

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

ventilation is present:, Wear suitable respiratory protection.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v3.6, Workplace measurements
	Worker - dermal, long-term - systemic
Exposure estimate	0,3429 mg/kg bw/day
Risk Characterization Ratio (RCR)	0,122464
Assessment method	Qualitative assessment
	Worker - inhalation

Contributing exposure scenario	
Use descriptors covered	PROC8b: Transfer of substance or mixture (charging and discharging) at dedicated facilities Use domain: industrial
Operational conditions	
Concentration of the substance	Iron trichloride Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	0,000001 Pa
Process temperature	20 °C
Duration and Frequency of activity	480 min 5 days per week
Risk Management Measures	
Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.	
In case of potential exposure:, Use suitable chemically resistant gloves., Use suitable eye protection.	
In case no suitable local exhaust ventilation is present:, Wear suitable respiratory protection.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v3.6, Workplace measurements
	Worker - dermal, long-term - systemic
Exposure estimate	0,0034 mg/kg bw/day
Risk Characterization Ratio (RCR)	0,001214
Assessment method	Qualitative assessment
	Worker - inhalation

Contributing exposure scenario	
Use descriptors covered	PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing). Use domain: industrial

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

Operational conditions	
Concentration of the substance	Iron trichloride Content: $\geq 0\%$ - $\leq 100\%$
Physical state	liquid
Vapour pressure of the substance during use	0,000001 Pa
Process temperature	20 °C
Duration and Frequency of activity	480 min 5 days per week
Risk Management Measures	
Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.	
In case of potential exposure:, Use suitable chemically resistant gloves., Use suitable eye protection.	
In case no suitable local exhaust ventilation is present:, Wear suitable respiratory protection.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v3.6, Workplace measurements
	Worker - dermal, long-term - systemic
Exposure estimate	0,0034 mg/kg bw/day
Risk Characterization Ratio (RCR)	0,001214
Assessment method	Qualitative assessment
	Worker - inhalation

Contributing exposure scenario	
Use descriptors covered	PROC10: Roller application or brushing Use domain: industrial
Operational conditions	
Concentration of the substance	Iron trichloride Content: $\geq 0\%$ - $\leq 100\%$
Physical state	liquid
Vapour pressure of the substance during use	0,000001 Pa
Process temperature	20 °C
Duration and Frequency of activity	480 min 5 days per week
Risk Management Measures	
Wear chemically resistant gloves in combination with 'basic' employee	Effectiveness: 90 %

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

training.	
Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.	
In case of potential exposure:, Use suitable chemically resistant gloves., Use suitable eye protection.	
In case no suitable local exhaust ventilation is present:, Wear suitable respiratory protection.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v3.6, Workplace measurements
	Worker - dermal, long-term - systemic
Exposure estimate	0,1714 mg/kg bw/day
Risk Characterization Ratio (RCR)	0,061214
Assessment method	Qualitative assessment
	Worker - inhalation

Contributing exposure scenario	
Use descriptors covered	PROC12: Use of blowing agents in manufacture of foam Use domain: industrial
Operational conditions	
Concentration of the substance	Iron trichloride Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	0,000001 Pa
Process temperature	20 °C
Duration and Frequency of activity	480 min 5 days per week
Risk Management Measures	
Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.	
In case of potential exposure:, Use suitable chemically resistant gloves., Use suitable eye protection.	
In case no suitable local exhaust ventilation is present:, Wear suitable respiratory protection.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v3.6, Workplace measurements
	Worker - dermal, long-term - systemic
Exposure estimate	0,0017 mg/kg bw/day

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

Risk Characterization Ratio (RCR)	0,000607
Assessment method	Qualitative assessment
	Worker - inhalation

Contributing exposure scenario	
Use descriptors covered	PROC13: Treatment of articles by dipping and pouring. Use domain: industrial
Operational conditions	
Concentration of the substance	Iron trichloride Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	0,000001 Pa
Process temperature	20 °C
Duration and Frequency of activity	480 min 5 days per week
Risk Management Measures	
Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.	
In case of potential exposure:, Use suitable chemically resistant gloves., Use suitable eye protection.	
In case no suitable local exhaust ventilation is present:, Wear suitable respiratory protection.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v3.6, Workplace measurements
	Worker - dermal, long-term - systemic
Exposure estimate	0,0343 mg/kg bw/day
Risk Characterization Ratio (RCR)	0,01225
Assessment method	Qualitative assessment
	Worker - inhalation

Contributing exposure scenario	
Use descriptors covered	PROC15: Use a laboratory reagent. Use domain: industrial
Operational conditions	
Concentration of the substance	Iron trichloride Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	0,000001 Pa

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

Process temperature	20 °C
Duration and Frequency of activity	480 min 5 days per week
Risk Management Measures	
Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.	
In case of potential exposure:, Use suitable chemically resistant gloves., Use suitable eye protection.	
In case no suitable local exhaust ventilation is present:, Wear suitable respiratory protection.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v3.6, Workplace measurements
	Worker - dermal, long-term - systemic
Exposure estimate	0,0171 mg/kg bw/day
Risk Characterization Ratio (RCR)	0,006107
Assessment method	Qualitative assessment
	Worker - inhalation

2. Short title of exposure scenario

Industrial applications, (liquid preparations)

IS; SU8, SU9, SU10, SU13, SU14, SU15, SU16, SU19, SU24; ERC2, ERC4, ERC5, ERC6a, ERC6b, ERC8f, ERC10a; PROC1, PROC2, PROC3, PROC4, PROC5, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC12, PROC13, PROC15, PROC19

Control of exposure and risk management measures

Contributing exposure scenario	
Use descriptors covered	All relevant process categories As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.
Contributing exposure scenario	
Use descriptors covered	PROC1: Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions. Use domain: industrial
Operational conditions	
Concentration of the substance	Iron trichloride

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

	Content: $\geq 0 \%$ - $\leq 100 \%$
Physical state	liquid
Vapour pressure of the substance during use	0,000001 Pa
Process temperature	20 °C
Duration and Frequency of activity	480 min 5 days per week
Risk Management Measures	
Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.	
In case of potential exposure:., Use suitable chemically resistant gloves., Use suitable eye protection.	
In case no suitable local exhaust ventilation is present:., Wear suitable respiratory protection.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v3.6, Workplace measurements
	Worker - dermal, long-term - systemic
Exposure estimate	0,0017 mg/kg bw/day
Risk Characterization Ratio (RCR)	0,000607
Assessment method	Qualitative assessment
	Worker - inhalation

Contributing exposure scenario	
Use descriptors covered	PROC2: Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions Use domain: industrial
Operational conditions	
Concentration of the substance	Iron trichloride Content: $\geq 0 \%$ - $\leq 100 \%$
Physical state	liquid
Vapour pressure of the substance during use	0,000001 Pa
Process temperature	20 °C
Duration and Frequency of activity	480 min 5 days per week
Risk Management Measures	
Minimise exposure by partial enclosure of the operation or equipment and provide extract	

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

ventilation at openings.	
In case of potential exposure:, Use suitable chemically resistant gloves., Use suitable eye protection.	
In case no suitable local exhaust ventilation is present:, Wear suitable respiratory protection.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v3.6, Workplace measurements
	Worker - dermal, long-term - systemic
Exposure estimate	0,0034 mg/kg bw/day
Risk Characterization Ratio (RCR)	0,001214
Assessment method	Qualitative assessment
	Worker - inhalation

Contributing exposure scenario	
Use descriptors covered	PROC3: Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition Use domain: industrial
Operational conditions	
Concentration of the substance	Iron trichloride Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	0,000001 Pa
Process temperature	20 °C
Duration and Frequency of activity	480 min 5 days per week
Risk Management Measures	
Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.	
In case of potential exposure:, Use suitable chemically resistant gloves., Use suitable eye protection.	
In case no suitable local exhaust ventilation is present:, Wear suitable respiratory protection.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v3.6, Workplace measurements
	Worker - dermal, long-term - systemic
Exposure estimate	0,0017 mg/kg bw/day
Risk Characterization Ratio (RCR)	0,000607

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

Assessment method	Qualitative assessment
	Worker - inhalation

Contributing exposure scenario	
Use descriptors covered	PROC4: Chemical production where opportunity for exposure arises Use domain: industrial
Operational conditions	
Concentration of the substance	Iron trichloride Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	0,000001 Pa
Process temperature	20 °C
Duration and Frequency of activity	480 min 5 days per week
Risk Management Measures	
Wear chemically resistant gloves in combination with 'basic' employee training.	Effectiveness: 90 %
Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.	
In case of potential exposure:, Use suitable chemically resistant gloves., Use suitable eye protection.	
In case no suitable local exhaust ventilation is present:, Wear suitable respiratory protection.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v3.6, Workplace measurements
	Worker - dermal, long-term - systemic
Exposure estimate	0,3429 mg/kg bw/day
Risk Characterization Ratio (RCR)	0,122464
Assessment method	Qualitative assessment
	Worker - inhalation

Contributing exposure scenario	
Use descriptors covered	PROC5: Mixing or blending in batch processes Use domain: industrial
Operational conditions	
Concentration of the substance	Iron trichloride Content: >= 0 % - <= 100 %

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

Physical state	liquid
Vapour pressure of the substance during use	0,000001 Pa
Process temperature	20 °C
Duration and Frequency of activity	480 min 5 days per week
Risk Management Measures	
Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.	
In case of potential exposure:, Use suitable chemically resistant gloves., Use suitable eye protection.	
In case no suitable local exhaust ventilation is present:, Wear suitable respiratory protection.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v3.6, Workplace measurements
	Worker - dermal, long-term - systemic
Exposure estimate	0,0034 mg/kg bw/day
Risk Characterization Ratio (RCR)	0,001214
Assessment method	Qualitative assessment
	Worker - inhalation

Contributing exposure scenario	
Use descriptors covered	PROC7: Industrial spraying Use domain: industrial
Operational conditions	
Concentration of the substance	Iron trichloride Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	0,000001 Pa
Process temperature	20 °C
Duration and Frequency of activity	480 min 5 days per week
Risk Management Measures	
Wear chemically resistant gloves in combination with 'basic' employee training.	Effectiveness: 90 %
Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.	

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

In case of potential exposure:, Use suitable chemically resistant gloves., Use suitable eye protection.	
In case no suitable local exhaust ventilation is present:, Wear suitable respiratory protection.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v3.6, Workplace measurements
	Worker - dermal, long-term - systemic
Exposure estimate	0,3429 mg/kg bw/day
Risk Characterization Ratio (RCR)	0,122464
Assessment method	Qualitative assessment
	Worker - inhalation

Contributing exposure scenario	
Use descriptors covered	PROC8a: Transfer of substance or mixture (charging and discharging) at non-dedicated facilities Use domain: industrial
Operational conditions	
Concentration of the substance	Iron trichloride Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	0,000001 Pa
Process temperature	20 °C
Duration and Frequency of activity	480 min 5 days per week
Risk Management Measures	
Wear chemically resistant gloves in combination with 'basic' employee training.	Effectiveness: 90 %
Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.	
In case of potential exposure:, Use suitable chemically resistant gloves., Use suitable eye protection.	
In case no suitable local exhaust ventilation is present:, Wear suitable respiratory protection.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v3.6, Workplace measurements
	Worker - dermal, long-term - systemic
Exposure estimate	0,6857 mg/kg bw/day
Risk Characterization Ratio (RCR)	0,244893

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

Assessment method	Qualitative assessment
	Worker - inhalation

Contributing exposure scenario	
Use descriptors covered	PROC8b: Transfer of substance or mixture (charging and discharging) at dedicated facilities Use domain: industrial
Operational conditions	
Concentration of the substance	Iron trichloride Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	0,000001 Pa
Process temperature	20 °C
Duration and Frequency of activity	480 min 5 days per week
Risk Management Measures	
Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.	
In case of potential exposure:, Use suitable chemically resistant gloves., Use suitable eye protection.	
In case no suitable local exhaust ventilation is present:, Wear suitable respiratory protection.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v3.6, Workplace measurements
	Worker - dermal, long-term - systemic
Exposure estimate	0,0034 mg/kg bw/day
Risk Characterization Ratio (RCR)	0,001214
Assessment method	Qualitative assessment
	Worker - inhalation

Contributing exposure scenario	
Use descriptors covered	PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing). Use domain: industrial
Operational conditions	
Concentration of the substance	Iron trichloride Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance	0,000001 Pa

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

during use	
Process temperature	20 °C
Duration and Frequency of activity	480 min 5 days per week
Risk Management Measures	
Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.	
In case of potential exposure:, Use suitable chemically resistant gloves., Use suitable eye protection.	
In case no suitable local exhaust ventilation is present:, Wear suitable respiratory protection.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v3.6, Workplace measurements
	Worker - dermal, long-term - systemic
Exposure estimate	0,0034 mg/kg bw/day
Risk Characterization Ratio (RCR)	0,001214
Assessment method	Qualitative assessment
	Worker - inhalation

Contributing exposure scenario	
Use descriptors covered	PROC10: Roller application or brushing Use domain: industrial
Operational conditions	
Concentration of the substance	Iron trichloride Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	0,000001 Pa
Process temperature	20 °C
Duration and Frequency of activity	480 min 5 days per week
Risk Management Measures	
Wear chemically resistant gloves in combination with 'basic' employee training.	Effectiveness: 90 %
Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.	
In case of potential exposure:, Use suitable chemically resistant gloves.,	

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

Use suitable eye protection.	
In case no suitable local exhaust ventilation is present:, Wear suitable respiratory protection.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v3.6, Workplace measurements
	Worker - dermal, long-term - systemic
Exposure estimate	0,1714 mg/kg bw/day
Risk Characterization Ratio (RCR)	0,061214
Assessment method	Qualitative assessment
	Worker - inhalation

Contributing exposure scenario	
Use descriptors covered	PROC12: Use of blowing agents in manufacture of foam Use domain: industrial
Operational conditions	
Concentration of the substance	Iron trichloride Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	0,000001 Pa
Process temperature	20 °C
Duration and Frequency of activity	480 min 5 days per week
Risk Management Measures	
Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.	
In case of potential exposure:, Use suitable chemically resistant gloves., Use suitable eye protection.	
In case no suitable local exhaust ventilation is present:, Wear suitable respiratory protection.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v3.6, Workplace measurements
	Worker - dermal, long-term - systemic
Exposure estimate	0,0017 mg/kg bw/day
Risk Characterization Ratio (RCR)	0,000607
Assessment method	Qualitative assessment
	Worker - inhalation

Contributing exposure scenario	
Use descriptors covered	PROC13: Treatment of articles by dipping and pouring. Use domain: industrial

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

Operational conditions	
Concentration of the substance	Iron trichloride Content: $\geq 0\%$ - $\leq 100\%$
Physical state	liquid
Vapour pressure of the substance during use	0,000001 Pa
Process temperature	20 °C
Duration and Frequency of activity	480 min 5 days per week
Risk Management Measures	
Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.	
In case of potential exposure:, Use suitable chemically resistant gloves., Use suitable eye protection.	
In case no suitable local exhaust ventilation is present:, Wear suitable respiratory protection.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v3.6, Workplace measurements
	Worker - dermal, long-term - systemic
Exposure estimate	0,0343 mg/kg bw/day
Risk Characterization Ratio (RCR)	0,01225
Assessment method	Qualitative assessment
	Worker - inhalation

Contributing exposure scenario	
Use descriptors covered	PROC15: Use a laboratory reagent. Use domain: industrial
Operational conditions	
Concentration of the substance	Iron trichloride Content: $\geq 0\%$ - $\leq 100\%$
Physical state	liquid
Vapour pressure of the substance during use	0,000001 Pa
Process temperature	20 °C
Duration and Frequency of activity	480 min 5 days per week
Risk Management Measures	
Minimise exposure by partial enclosure of the operation or	

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

equipment and provide extract ventilation at openings.	
In case of potential exposure:, Use suitable chemically resistant gloves., Use suitable eye protection.	
In case no suitable local exhaust ventilation is present:, Wear suitable respiratory protection.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v3.6, Workplace measurements
	Worker - dermal, long-term - systemic
Exposure estimate	0,0171 mg/kg bw/day
Risk Characterization Ratio (RCR)	0,006107
Assessment method	Qualitative assessment
	Worker - inhalation

Contributing exposure scenario	
Use descriptors covered	PROC19: Manual activities involving hand contact Use domain: industrial
Operational conditions	
Concentration of the substance	Iron trichloride Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	0,000001 Pa
Process temperature	20 °C
Duration and Frequency of activity	480 min 5 days per week
Risk Management Measures	
Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.	
In case of potential exposure:, Use suitable chemically resistant gloves., Use suitable eye protection.	
In case no suitable local exhaust ventilation is present:, Wear suitable respiratory protection.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v3.6, Workplace measurements
	Worker - dermal, long-term - systemic
Exposure estimate	0,3429 mg/kg bw/day
Risk Characterization Ratio (RCR)	0,122464
Assessment method	Qualitative assessment
	Worker - inhalation

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

3. Short title of exposure scenario

Professional applications, (handling as solid in solution)

PW; SU1, SU13, SU19, SU24; ERC8a, ERC8c, ERC8d, ERC8e, ERC8f, ERC10a; PROC5, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC15, PROC19

Control of exposure and risk management measures

Contributing exposure scenario	
Use descriptors covered	All relevant process categories As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.
Contributing exposure scenario	
Use descriptors covered	PROC5: Mixing or blending in batch processes Use domain: professional
Operational conditions	
Concentration of the substance	Iron trichloride Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	0,000001 Pa
Process temperature	20 °C
Duration and Frequency of activity	480 min 5 days per week
Risk Management Measures	
Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.	
In case of potential exposure:, Use suitable chemically resistant gloves., Use suitable eye protection.	
In case no suitable local exhaust ventilation is present:, Wear suitable respiratory protection.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v3.6, Workplace measurements
	Worker - dermal, long-term - systemic
Exposure estimate	0,0034 mg/kg bw/day
Risk Characterization Ratio (RCR)	0,001214

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

Assessment method	Qualitative assessment
	Worker - inhalation

Contributing exposure scenario	
Use descriptors covered	PROC8a: Transfer of substance or mixture (charging and discharging) at non-dedicated facilities Use domain: professional
Operational conditions	
Concentration of the substance	Iron trichloride Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	0,000001 Pa
Process temperature	20 °C
Duration and Frequency of activity	480 min 5 days per week
Risk Management Measures	
Wear chemically resistant gloves in combination with 'basic' employee training.	Effectiveness: 90 %
Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.	
In case of potential exposure:, Use suitable chemically resistant gloves., Use suitable eye protection.	
In case no suitable local exhaust ventilation is present:, Wear suitable respiratory protection.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v3.6, Workplace measurements
	Worker - dermal, long-term - systemic
Exposure estimate	0,6857 mg/kg bw/day
Risk Characterization Ratio (RCR)	0,244893
Assessment method	Qualitative assessment
	Worker - inhalation

Contributing exposure scenario	
Use descriptors covered	PROC8b: Transfer of substance or mixture (charging and discharging) at dedicated facilities Use domain: professional
Operational conditions	
Concentration of the substance	Iron trichloride Content: >= 0 % - <= 100 %

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

Physical state	liquid
Vapour pressure of the substance during use	0,000001 Pa
Process temperature	20 °C
Duration and Frequency of activity	480 min 5 days per week
Risk Management Measures	
Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.	
In case of potential exposure:, Use suitable chemically resistant gloves., Use suitable eye protection.	
In case no suitable local exhaust ventilation is present:, Wear suitable respiratory protection.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v3.6, Workplace measurements
	Worker - dermal, long-term - systemic
Exposure estimate	0,0034 mg/kg bw/day
Risk Characterization Ratio (RCR)	0,001214
Assessment method	Qualitative assessment
	Worker - inhalation

Contributing exposure scenario	
Use descriptors covered	PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing). Use domain: professional
Operational conditions	
Concentration of the substance	Iron trichloride Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	0,000001 Pa
Process temperature	20 °C
Duration and Frequency of activity	480 min 5 days per week
Risk Management Measures	
Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.	
In case of potential exposure:, Use	

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

suitable chemically resistant gloves., Use suitable eye protection.	
In case no suitable local exhaust ventilation is present:, Wear suitable respiratory protection.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v3.6, Workplace measurements
	Worker - dermal, long-term - systemic
Exposure estimate	0,0034 mg/kg bw/day
Risk Characterization Ratio (RCR)	0,001214
Assessment method	Qualitative assessment
	Worker - inhalation

Contributing exposure scenario	
Use descriptors covered	PROC10: Roller application or brushing Use domain: professional
Operational conditions	
Concentration of the substance	Iron trichloride Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	0,000001 Pa
Process temperature	20 °C
Duration and Frequency of activity	480 min 5 days per week
Risk Management Measures	
Wear chemically resistant gloves in combination with 'basic' employee training.	Effectiveness: 90 %
Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.	
In case of potential exposure:, Use suitable chemically resistant gloves., Use suitable eye protection.	
In case no suitable local exhaust ventilation is present:, Wear suitable respiratory protection.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v3.6, Workplace measurements
	Worker - dermal, long-term - systemic
Exposure estimate	0,3429 mg/kg bw/day
Risk Characterization Ratio (RCR)	0,122464
Assessment method	Qualitative assessment
	Worker - inhalation

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

Contributing exposure scenario	
Use descriptors covered	PROC11: Non industrial spraying Use domain: professional
Operational conditions	
Concentration of the substance	Iron trichloride Content: $\geq 0\%$ - $\leq 100\%$
Physical state	liquid
Vapour pressure of the substance during use	0,000001 Pa
Process temperature	20 °C
Duration and Frequency of activity	480 min 5 days per week
Risk Management Measures	
Wear chemically resistant gloves in combination with 'basic' employee training.	Effectiveness: 90 %
Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.	
In case of potential exposure:, Use suitable chemically resistant gloves., Use suitable eye protection.	
In case no suitable local exhaust ventilation is present:, Wear suitable respiratory protection.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v3.6, Workplace measurements
	Worker - dermal, long-term - systemic
Exposure estimate	0,3429 mg/kg bw/day
Risk Characterization Ratio (RCR)	0,122464
Assessment method	Qualitative assessment
	Worker - inhalation

Contributing exposure scenario	
Use descriptors covered	PROC13: Treatment of articles by dipping and pouring. Use domain: professional
Operational conditions	
Concentration of the substance	Iron trichloride Content: $\geq 0\%$ - $\leq 100\%$
Physical state	liquid
Vapour pressure of the substance during use	0,000001 Pa

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

Process temperature	20 °C
Duration and Frequency of activity	480 min 5 days per week
Risk Management Measures	
Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.	
In case of potential exposure:, Use suitable chemically resistant gloves., Use suitable eye protection.	
In case no suitable local exhaust ventilation is present:, Wear suitable respiratory protection.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v3.6, Workplace measurements
	Worker - dermal, long-term - systemic
Exposure estimate	0,0343 mg/kg bw/day
Risk Characterization Ratio (RCR)	0,01225
Assessment method	Qualitative assessment
	Worker - inhalation

Contributing exposure scenario	
Use descriptors covered	PROC15: Use a laboratory reagent. Use domain: professional
Operational conditions	
Concentration of the substance	Iron trichloride Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	0,000001 Pa
Process temperature	20 °C
Duration and Frequency of activity	480 min 5 days per week
Risk Management Measures	
Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.	
In case of potential exposure:, Use suitable chemically resistant gloves., Use suitable eye protection.	
In case no suitable local exhaust ventilation is present:, Wear suitable respiratory protection.	

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

Exposure estimate and reference to its source	
Assessment method	EASY TRA v3.6, Workplace measurements
	Worker - dermal, long-term - systemic
Exposure estimate	0,0171 mg/kg bw/day
Risk Characterization Ratio (RCR)	0,006107
Assessment method	Qualitative assessment
	Worker - inhalation

Contributing exposure scenario	
Use descriptors covered	PROC19: Manual activities involving hand contact Use domain: professional
Operational conditions	
Concentration of the substance	Iron trichloride Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	0,000001 Pa
Process temperature	20 °C
Duration and Frequency of activity	480 min 5 days per week

Risk Management Measures	
Wear chemically resistant gloves in combination with 'basic' employee training.	Effectiveness: 90 %
Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.	
In case of potential exposure:, Use suitable chemically resistant gloves., Use suitable eye protection.	
In case no suitable local exhaust ventilation is present:, Wear suitable respiratory protection.	

Exposure estimate and reference to its source	
Assessment method	EASY TRA v3.6, Workplace measurements
	Worker - dermal, long-term - systemic
Exposure estimate	1,4143 mg/kg bw/day
Risk Characterization Ratio (RCR)	0,505107
Assessment method	Qualitative assessment
	Worker - inhalation

4. Short title of exposure scenario

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 07.01.2025

Version: 1.2

Date / Previous version: 24.04.2024

Previous version: 1.1

Product: **Iron trichloride solution (FeCl₃)**

(ID no. 30042289/SDS_GEN_DE/EN)

Date of print 23.10.2025

Use in Metal surface treatment, etching agent, Consumer applications
C; C; ERC2, ERC6b; PC14

Control of exposure and risk management measures

Contributing exposure scenario	
Use descriptors covered	As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.
Contributing exposure scenario	
Use descriptors covered	PC14: Metal surface treatment products, including galvanic and electroplating products.
Operational conditions	
Concentration of the substance	Iron trichloride Content: 40 %
Physical state	liquid
	Corresponds to a vapour pressure < 0.01 Pa
Indoor/Outdoor	Indoor, Outdoor
Risk Management Measures	
Consumer Measures	Use of suitable gloves. Use suitable eye protection.
Exposure estimate and reference to its source	
Assessment method	ConsExpo v4.1
	Consumer - inhalation, long-term - systemic
Exposure estimate	0 mg/m ³
Risk Characterization Ratio (RCR)	0
Assessment method	ConsExpo v4.1
	Consumer - dermal, long-term - systemic
Exposure estimate	< 0,36 mg/kg bw/day
Risk Characterization Ratio (RCR)	< 0,86
	Worst case assumption
Guidance to Downstream Users	
For scaling see: http://www.rivm.nl/en/healthandddisease/productsafety/ConsExpo.jsp	
