

# SAFETY DATA SHEET

Creation Date 20-Jan-2015

Revision Date 18-Dec-2025

Revision Number 7

This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard 2024 (29 CFR 1910.1200)

## 1. Identification

**Product Name** Hydrochloric Acid, 25%

**Cat No. :** SA812-1; SA812-4; SA812-20

**Synonyms** Muriatic acid; Hydrogen chloride; Chlorohydric acid

**Recommended Use** Laboratory chemicals.

**Uses advised against** Food, drug, pesticide or biocidal product use.

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

#### **Company**

Fisher Scientific Company  
One Reagent Lane  
Fair Lawn, NJ 07410  
Tel: (201) 796-7100

#### **Emergency Telephone Number**

CHEMTREC®, Inside the USA: 800-424-9300  
CHEMTREC®, Outside the USA: 001-703-527-3887

## 2. Hazard(s) identification

### **Classification**

This chemical is considered hazardous according to [US] OSHA (29 CFR 1910.1200, 2024)

|                                                  |              |
|--------------------------------------------------|--------------|
| Corrosive to metals                              | Category 1   |
| Skin Corrosion/Irritation                        | Category 1 B |
| Serious Eye Damage/Eye Irritation                | Category 1   |
| Specific target organ toxicity (single exposure) | Category 3   |
| Target Organs - Respiratory system.              |              |

### **Label Elements**

#### **Signal Word**

Danger

#### **Hazard Statements**

May be corrosive to metals  
Causes severe skin burns and eye damage  
May cause respiratory irritation

**Precautionary Statements****Prevention**

Do not breathe dust/fume/gas/mist/vapors/spray  
 Wash face, hands and any exposed skin thoroughly after handling  
 Wear protective gloves/protective clothing/eye protection/face protection  
 Use only outdoors or in a well-ventilated area  
 Keep only in original packaging

**Response**

Immediately call a POISON CENTER or doctor

**Inhalation**

IF INHALED: Remove person to fresh air and keep comfortable for breathing

**Skin**

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower  
 Take off contaminated clothing and wash before reuse

**Eyes**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

**Ingestion**

IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

**Spills**

Absorb spillage to prevent material damage

**Storage**

Store locked up  
 Store in a well-ventilated place. Keep container tightly closed  
 Store in corrosive resistant polypropylene container with a resistant inliner  
 Store in a dry place

**Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

None identified

**Hazards classified under paragraph (d)(1)(ii) of 1910.1200**

No information available

### 3. Composition/information on Ingredients

| Component         | CAS No    | Weight % |
|-------------------|-----------|----------|
| Water             | 7732-18-5 | 75       |
| Hydrochloric acid | 7647-01-0 | 25       |

### 4. First-aid measures

**General Advice**

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

**Eye Contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

**Skin Contact**

Wash off immediately with plenty of water for at least 15 minutes. Remove and wash

|                                            |                                                                                                                                                                                                                                                                                                                                |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                            | contaminated clothing and gloves, including the inside, before re-use. Call a physician immediately.                                                                                                                                                                                                                           |
| <b>Inhalation</b>                          | If not breathing, give artificial respiration. Remove from exposure, lie down. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician immediately. |
| <b>Ingestion</b>                           | Do NOT induce vomiting. Clean mouth with water. Never give anything by mouth to an unconscious person. Call a physician immediately.                                                                                                                                                                                           |
| <b>Most important symptoms and effects</b> | Causes burns by all exposure routes. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation                                |
| <b>Notes to Physician</b>                  | Treat symptomatically                                                                                                                                                                                                                                                                                                          |

## 5. Fire-fighting measures

|                                         |                                                                                                                                                         |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Suitable Extinguishing Media</b>     | Substance is nonflammable; use agent most appropriate to extinguish surrounding fire. CO <sub>2</sub> , dry chemical, dry sand, alcohol-resistant foam. |
| <b>Unsuitable Extinguishing Media</b>   | No information available                                                                                                                                |
| <b>Flash Point</b>                      | No information available                                                                                                                                |
| <b>Method -</b>                         | No information available                                                                                                                                |
| <b>Autoignition Temperature</b>         | No information available                                                                                                                                |
| <b>Explosion Limits</b>                 |                                                                                                                                                         |
| <b>Upper</b>                            | No data available                                                                                                                                       |
| <b>Lower</b>                            | No data available                                                                                                                                       |
| <b>Sensitivity to Mechanical Impact</b> | No information available                                                                                                                                |
| <b>Sensitivity to Static Discharge</b>  | No information available                                                                                                                                |

### Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapors. The product causes burns of eyes, skin and mucous membranes.

### Hazardous Combustion Products

Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Hydrogen chloride gas.

### Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

### NFPA

|                    |                          |                         |                                |
|--------------------|--------------------------|-------------------------|--------------------------------|
| <b>Health</b><br>3 | <b>Flammability</b><br>0 | <b>Instability</b><br>0 | <b>Physical hazards</b><br>N/A |
|--------------------|--------------------------|-------------------------|--------------------------------|

## 6. Accidental release measures

|                                             |                                                                                                                                                               |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Personal Precautions</b>                 | Use personal protective equipment as required. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. |
| <b>Environmental Precautions</b>            | Should not be released into the environment. See Section 12 for additional Ecological Information.                                                            |
| <b>Methods for Containment and Clean Up</b> | Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.                                                                      |

## 7. Handling and Storage

|                 |                                                                                                                                                                                                                                                 |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Handling</b> | Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe the mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance. |
| <b>Storage.</b> | Keep containers tightly closed in a dry, cool and well-ventilated place. Corrosives area. Incompatible Materials. Strong oxidizing agents. Reducing Agent. Bases. Metals.                                                                       |

## 8. Exposure controls / personal protection

### Exposure Guidelines

| Component         | ACGIH TLV      | OSHA PEL                                                                                                             | NIOSH                                                          | Mexico OEL (TWA) |
|-------------------|----------------|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|------------------|
| Hydrochloric acid | Ceiling: 2 ppm | Ceiling: 5 ppm<br>Ceiling: 7 mg/m <sup>3</sup><br>(Vacated) Ceiling: 5 ppm<br>(Vacated) Ceiling: 7 mg/m <sup>3</sup> | IDLH: 50 ppm<br>Ceiling: 5 ppm<br>Ceiling: 7 mg/m <sup>3</sup> | Ceiling: 2 ppm   |

### Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH: NIOSH - National Institute for Occupational Safety and Health

|                             |                                                                                                                             |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| <b>Engineering Measures</b> | Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location. |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------|

### Personal Protective Equipment

|                                 |                                                                                                                                                                                                                                                   |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Eye/face Protection</b>      | Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.                                                                       |
| <b>Skin and body protection</b> | Wear appropriate protective gloves and clothing to prevent skin exposure.                                                                                                                                                                         |
| <b>Respiratory Protection</b>   | Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. |
| <b>Recommended Filter type:</b> | Acid gases filter. Type E. Yellow. or. Particulates filter conforming to EN 143.                                                                                                                                                                  |
| <b>Hygiene Measures</b>         | Handle in accordance with good industrial hygiene and safety practice.                                                                                                                                                                            |

## 9. Physical and chemical properties

### Appearance

|                       |                          |
|-----------------------|--------------------------|
| <b>Physical State</b> | Liquid                   |
| <b>Color</b>          | Clear                    |
| <b>Odor</b>           | pungent                  |
| <b>Odor Threshold</b> | No information available |

### Property

| Property                        | Values                         | Remarks    | Method                                   |
|---------------------------------|--------------------------------|------------|------------------------------------------|
| <b>Melting Point/Range</b>      | -74 °C / -101.2 °F             |            |                                          |
| <b>Softening Point</b>          | No data available              |            |                                          |
| <b>Boiling Point/Range</b>      | 81.5 - 110 °C / 178.7 - 230 °F | @ 760 mmHg |                                          |
| <b>Flash Point</b>              | No information available       |            |                                          |
| <b>Flammability (liquid)</b>    | No data available              |            | <b>Method</b> - No information available |
| <b>Flammability (solid,gas)</b> | Not applicable                 | Liquid     |                                          |
| <b>Explosion Limits</b>         | No data available              |            |                                          |

|                                                |                          |             |
|------------------------------------------------|--------------------------|-------------|
| <b>Autoignition Temperature</b>                | No data available        |             |
| <b>Decomposition Temperature</b>               | No data available        |             |
| <b>pH</b>                                      | < 1                      |             |
| <b>Viscosity</b>                               | No data available        |             |
| <b>Water Solubility</b>                        | Miscible                 |             |
| <b>Solubility in other solvents</b>            | No information available |             |
| <b>Partition Coefficient (n-octanol/water)</b> |                          |             |
| <b>Vapor Pressure</b>                          | 5.7 mmHg @ 0 °C          |             |
| <b>Density / Specific Gravity</b>              | 1.0 - 1.2                |             |
| <b>Bulk Density</b>                            | Not applicable           | Liquid      |
| <b>Vapor Density</b>                           | 1.26                     | (Air = 1.0) |
| <b>Particle characteristics</b>                | Not applicable (liquid)  |             |

**Other Information**

**Evaporation Rate** > 1.00 (Butyl Acetate = 1.0)

## 10. Stability and reactivity

|                                         |                                                                                |
|-----------------------------------------|--------------------------------------------------------------------------------|
| <b>Reactive Hazard</b>                  | None known, based on information available                                     |
| <b>Stability</b>                        | Stable under normal conditions.                                                |
| <b>Conditions to Avoid</b>              | Incompatible products. Excess heat.                                            |
| <b>Incompatible Materials</b>           | Strong oxidizing agents, Reducing Agent, Bases, Metals                         |
| <b>Hazardous Decomposition Products</b> | Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> ), Hydrogen chloride gas |
| <b>Hazardous Polymerization</b>         | Hazardous polymerization does not occur.                                       |
| <b>Hazardous Reactions</b>              | None under normal processing.                                                  |

## 11. Toxicological information

**Information on expected route of exposure**

|                   |                                                                                                 |
|-------------------|-------------------------------------------------------------------------------------------------|
| <b>Inhalation</b> | Not an expected route of exposure.                                                              |
| <b>Ingestion</b>  | May be harmful if swallowed.                                                                    |
| <b>Eyes</b>       | Avoid contact with eyes. Corrosive to the eyes and may cause severe damage including blindness. |
| <b>Skin</b>       | Avoid contact with skin. Causes burns. Skin Corrosion/Irritation.                               |

**Toxicology data for the components**

| Component         | LD50 Oral               | LD50 Dermal             | LC50 Inhalation       |
|-------------------|-------------------------|-------------------------|-----------------------|
| Water             | -                       | -                       | -                     |
| Hydrochloric acid | 238 - 277 mg/kg ( Rat ) | > 5010 mg/kg ( Rabbit ) | 1.68 mg/L ( Rat ) 1 h |

**Toxicologically Synergistic Products** No information available

**(b) skin corrosion/irritation;** Category 1 B

**(c) serious eye damage/irritation;** Category 1

**(d) respiratory or skin sensitization;**

Respiratory No data available  
Skin No data available

**(e) germ cell mutagenicity;** No data available

**(f) carcinogenicity;**

The table below indicates whether each agency has listed any ingredient as a carcinogen

| Component         | CAS No    | IARC       | NTP        | ACGIH      | OSHA       | Mexico     |
|-------------------|-----------|------------|------------|------------|------------|------------|
| Water             | 7732-18-5 | Not listed |
| Hydrochloric acid | 7647-01-0 | Not listed |

**(g) reproductive toxicity;** No data available

**(h) STOT-single exposure;** Category 3

Results / Target organs Respiratory system.

**(i) STOT-repeated exposure;** No data available

Target Organs No information available.

**(j) aspiration hazard;** No data available

**Symptoms / effects, both acute and delayed** Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation.

**Other Adverse Effects** The toxicological properties have not been fully investigated.

**Endocrine Disrupting Properties** This product does not contain any known or suspected endocrine disruptors.

## 12. Ecological information

**Ecotoxicity**

This product contains the following substance(s) which are hazardous for the environment. .

| Component         | Freshwater Algae | Freshwater Fish                                                            | Microtox | Water Flea              |
|-------------------|------------------|----------------------------------------------------------------------------|----------|-------------------------|
| Hydrochloric acid | -                | 282 mg/L LC50 96 h<br>Gambusia affinis<br>mg/L LC50 48 h Leuciscus<br>idus | -        | 56mg/L EC50 72h Daphnia |

**Persistence and Degradability** Persistence is unlikely based on information available.

**Bioaccumulation/ Accumulation** No information available.

**Mobility** Will likely be mobile in the environment due to its volatility.

## 13. Disposal considerations

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## 14. Transport information

**DOT**

UN-No UN1789  
 Proper Shipping Name HYDROCHLORIC ACID  
 Hazard Class 8  
 Packing Group II

**TDG**

UN-No UN1789  
 Proper Shipping Name HYDROCHLORIC ACID  
 Hazard Class 8  
 Packing Group II

**IATA**

UN-No UN1789  
 Proper Shipping Name HYDROCHLORIC ACID  
 Hazard Class 8  
 Packing Group II

**IMDG/IMO**

UN-No UN1789  
 Proper Shipping Name HYDROCHLORIC ACID  
 Hazard Class 8  
 Packing Group II

## 15. Regulatory Information

**United States of America Inventory**

| Component         | CAS No    | TSCA | TSCA Inventory notification - Active-Inactive | TSCA - EPA Regulatory Flags |
|-------------------|-----------|------|-----------------------------------------------|-----------------------------|
| Water             | 7732-18-5 | X    | ACTIVE                                        | -                           |
| Hydrochloric acid | 7647-01-0 | X    | ACTIVE                                        | -                           |

**Legend:**

TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

- - Not Listed

**TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT)** Not applicable

**TSCA 12(b) - Notices of Export** Not applicable

**International Inventories**

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

| Component         | CAS No    | DSL | NDSL | EINECS    | PICCS | ENCS | ISHL | AICS | IECSC | KECL     |
|-------------------|-----------|-----|------|-----------|-------|------|------|------|-------|----------|
| Water             | 7732-18-5 | X   | -    | 231-791-2 | X     | X    |      | X    | X     | KE-35400 |
| Hydrochloric acid | 7647-01-0 | X   | -    | 231-595-7 | X     | X    | X    | X    | X     | KE-20189 |

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

**U.S. Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

| Component         | CAS No    | Weight % | SARA 313 - Threshold Values % | SARA 313 - Reporting thresholds |
|-------------------|-----------|----------|-------------------------------|---------------------------------|
| Hydrochloric acid | 7647-01-0 | 25       | 1.0 %                         | -                               |

**SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

**CWA (Clean Water Act)**

| Component         | CWA - Hazardous Substances | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants |
|-------------------|----------------------------|-----------------------------|------------------------|---------------------------|
| Hydrochloric acid | X                          | 5000 lb                     | -                      | -                         |

**Clean Air Act**

| Component         | HAPS Data | Class 1 Ozone Depletors | Class 2 Ozone Depletors |
|-------------------|-----------|-------------------------|-------------------------|
| Hydrochloric acid | X         |                         | -                       |

**OSHA** - Occupational Safety and Health Administration

| Component         | Specifically Regulated Chemicals | Highly Hazardous Chemicals |
|-------------------|----------------------------------|----------------------------|
| Hydrochloric acid | -                                | TQ: 5000 lb                |

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

| Component         | Hazardous Substances RQs | CERCLA Extremely Hazardous Substances RQs | SARA Reportable Quantity (RQ) |
|-------------------|--------------------------|-------------------------------------------|-------------------------------|
| Hydrochloric acid | 5000 lb                  | 5000 lb                                   | 5000 lb<br>2270 kg            |

**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

| Component         | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|-------------------|---------------|------------|--------------|----------|--------------|
| Water             | -             | -          | X            | -        | -            |
| Hydrochloric acid | X             | X          | X            | X        | X            |

**U.S. Department of Transportation**

Reportable Quantity (RQ): Y  
DOT Marine Pollutant N  
DOT Severe Marine Pollutant N

**U.S. Department of Homeland Security**

This product contains the following DHS chemicals:

**Legend** - STQs = Screening Threshold Quantities, APA = A placarded amount

| Component         | DHS Chemical Facility Anti-Terrorism Standard                                                                              |
|-------------------|----------------------------------------------------------------------------------------------------------------------------|
| Hydrochloric acid | Release STQs - 15000lb (concentration $\geq 37\%$ )<br>Release STQs - 5000lb (anhydrous)<br>Theft STQs - 500lb (anhydrous) |

**Other International Regulations****Mexico - Grade**

No information available

**Authorisation/Restrictions according to EU REACH**

| Component | CAS No | REACH (1907/2006) - Annex XIV - Substances | REACH (1907/2006) - Annex XVII - Restrictions | REACH Regulation (EC 1907/2006) article 59 - |
|-----------|--------|--------------------------------------------|-----------------------------------------------|----------------------------------------------|
|           |        |                                            |                                               |                                              |

|                   |           | Subject to Authorization | on Certain Dangerous Substances                                     | Candidate List of Substances of Very High Concern (SVHC) |
|-------------------|-----------|--------------------------|---------------------------------------------------------------------|----------------------------------------------------------|
| Water             | 7732-18-5 | -                        | -                                                                   | -                                                        |
| Hydrochloric acid | 7647-01-0 | -                        | Use restricted. See entry 75.<br>(see link for restriction details) | -                                                        |

**REACH links**

<https://echa.europa.eu/substances-restricted-under-reach>

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

| Component         | CAS No    | OECD HPV | Persistent Organic Pollutant | Ozone Depletion Potential | Restriction of Hazardous Substances (RoHS) |
|-------------------|-----------|----------|------------------------------|---------------------------|--------------------------------------------|
| Water             | 7732-18-5 | Listed   | Not applicable               | Not applicable            | Not applicable                             |
| Hydrochloric acid | 7647-01-0 | Listed   | Not applicable               | Not applicable            | Not applicable                             |

**Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?**

Not applicable

**Other International Regulations**

| Component         | CAS No    | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements | Rotterdam Convention (PIC) | Basel Convention (Hazardous Waste) |
|-------------------|-----------|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|----------------------------|------------------------------------|
| Water             | 7732-18-5 | Not applicable                                                                            | Not applicable                                                                           | Not applicable             | Not applicable                     |
| Hydrochloric acid | 7647-01-0 | 25 tonne                                                                                  | 250 tonne                                                                                | Not applicable             | Annex I - Y34                      |

## 16. Other Information

|                         |                                                                                                                                                                                                                                                                                                       |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Prepared By</b>      | Product stewardship (Regulatory Affairs)<br>Thermo Fisher Scientific<br>email - <a href="mailto:begel.sdsdesk@thermofisher.com">begel.sdsdesk@thermofisher.com</a>                                                                                                                                    |
| <b>Creation Date</b>    | 20-Jan-2015                                                                                                                                                                                                                                                                                           |
| <b>Revision Date</b>    | 18-Dec-2025                                                                                                                                                                                                                                                                                           |
| <b>Print Date</b>       | 18-Dec-2025                                                                                                                                                                                                                                                                                           |
| <b>Revision Summary</b> | Updated to the U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) which published its Final Rule in the Federal Register revising the Hazard Communication Standard (HCS/HazCom), 29 CFR 1910.1200 (2024) (HCS §1910.1200, 2024), May 20, 2024, effective July 19, 2024. |

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of SDS**