



AF 35 (AFCO 8752)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Revision Date: 04/01/2024

Version: 1.3

SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Mixture

Product Name: AF 35

Product Code: AFCO 8752

Intended Use of the Product

Use of the Substance/Mixture: Water treatment chemical. For professional use only.

Name, Address, and Telephone of the Responsible Party

Company

AFCO
800 Development Avenue
Chambersburg, PA 17201
T: 800-345-1329

www.afcocare.com

Emergency Telephone Number

Emergency Number : 1-800-424-9300 (CHEMTREC)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

Classification (GHS-US)

Met. Corr. 1 H290
Acute Tox. 4 (Oral) H302
Skin Irrit. 2 H315
Eye Dam. 1 H318

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US)

:



GH505

Signal Word (GHS-US)

:

Danger.

Hazard Statements (GHS-US)

:

H290 - May be corrosive to metals
H302 - Harmful if swallowed
H315 - Causes skin irritation
H318 - Causes serious eye damage

Precautionary Statements (GHS-US)

:

P234 - Keep only in original container
P264 - Wash hands, forearms, and exposed areas thoroughly after handling.
P270 - Do not eat, drink, or smoke when using this product.
P280 - Wear eye protection, face protection, protective clothing, protective gloves.
P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a POISON CENTER or doctor/physician.
P321 - Specific treatment (see Section 4).
P330 - If swallowed, rinse mouth.
P332+P313 - If skin irritation occurs, get medical advice/attention.
P362 - Take off contaminated clothing and wash before reuse.
P390 - Absorb spillage to prevent material damage.
P406 - Store in corrosive resistant container with a corrosive resistant liner.

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P501 - Dispose of contents/container according to local, regional, national, territorial, provincial, and international regulations.

Other Hazards

Other Hazards Not Contributing to the Classification: Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions.

Unknown Acute Toxicity (GHS-US): Less than 1 percent of the mixture consists of ingredient(s) of unknown acute toxicity.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substances

| Name | Product identifier | % (w/w) | Classification (GHS-US) |
|-------------------|--------------------|---------|--|
| Water | (CAS No) 7732-18-5 | 50-80 | Not classified |
| Iron trichloride | (CAS No) 7705-08-0 | 35-45 | Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Acute 2, H401 |
| Hydrochloric acid | (CAS No) 7647-01-0 | 1-5 | Met. Corr. 1, H290 Skin Corr. 1B, H314 Eye Dam. 1, H318 Acute Tox. 3 (Inhalation: gas), H331 STOT SE 3, H335 |

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor/physician if you feel unwell.

Skin Contact: Remove contaminated clothing. Drench affected area with water for several minutes. Immediately call a POISON CENTER or doctor/physician. Wash contaminated clothing before reuse.

Eye Contact: Rinse cautiously with water for at several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Ingestion: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

Most Important Symptoms and Effects Both Acute and Delayed

General: Causes skin irritation and serious eye damage.

Inhalation: Not classified.

Skin Contact: Causes irritation.

Eye Contact: Causes serious eye damage.

Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: None known.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If you feel unwell, seek medical advice (show the label where possible).

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: Do not use a heavy water stream. A heavy water stream may spread burning liquid.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not flammable.

Explosion Hazard: Product is not flammable, however contact with some metals may release flammable hydrogen gas.

Reactivity: Thermal decomposition generates corrosive vapors. Heating above decomposition temperature may cause formation of hydrogen chloride. Reacts violently with strong bases.

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Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire. Under fire conditions, hazardous fumes will be present.

Firefighting Instructions: Use water spray or fog for cooling exposed containers.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Corrosive vapors, hydrogen chloride.

Reference to Other Sections

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Avoid all contact with skin, eyes, or clothing.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Ventilate area.

Environmental Precautions

Prevent entry to sewers and public waters. Restrict the spread of the spillage by using inert absorbent material (sand, gravel). Cover the drains. Must be disposed of in accordance with local and national regulations.

Methods and Material for Containment and Cleaning Up

Methods for Cleaning Up: Dilute residues with water and then neutralize with lime or soda ash to a solid consistency. Shovel or sweep up. Must be disposed of in accordance with local and national regulations.

Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse.

Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations.

Storage Conditions: Keep/Store away from extremely low temperatures and incompatible materials. Keep from freezing.

Incompatible Materials: Bases. Stainless steel, leather, non-acid proof metals (like aluminum, copper, iron). Contact with some metals may release flammable hydrogen gas.

Specific End Use(s): Water treatment chemical. For professional use only.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

| Hydrochloric acid (7647-01-0) | | |
|-------------------------------|--|-----------------------|
| Mexico | OEL Ceiling (mg/m ³) | 7 mg/m ³ |
| Mexico | OEL Ceiling (ppm) | 5 ppm |
| USA ACGIH | ACGIH Ceiling (ppm) | 2 ppm |
| USA OSHA | OSHA PEL (Ceiling) (mg/m ³) | 7 mg/m ³ |
| USA OSHA | OSHA PEL (Ceiling) (ppm) | 5 ppm |
| USA NIOSH | NIOSH REL (ceiling) (mg/m ³) | 7 mg/m ³ |
| USA NIOSH | NIOSH REL (ceiling) (ppm) | 5 ppm |
| USA IDLH | US IDLH (ppm) | 50 ppm |
| Ontario | OEL Ceiling (ppm) | 2 ppm |
| Québec | PLAFOND (mg/m ³) | 7.5 mg/m ³ |
| Québec | PLAFOND (ppm) | 5 ppm |

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| Iron trichloride (7705-08-0) | | |
|------------------------------|------------------------------------|---------------------|
| USA ACGIH | ACGIH Ceiling (mg/m ³) | 1 mg/m ³ |
| Ontario | OEL Ceiling (mg/m ³) | 2 mg/m ³ |

Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure all national/local regulations are observed.

Personal Protective Equipment: Protective goggles. Gloves.



Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Chemical goggles.

Skin and Body Protection: None usually needed.

Respiratory Protection: None usually needed.

Environmental Exposure Controls: Do not allow the product to be released into the environment.

Consumer Exposure Controls: Do not eat, drink or smoke during use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

| | |
|---|---|
| Physical State | : Liquid |
| Appearance | : Dark brown |
| Odor | : Slightly acidic |
| Odor Threshold | : Not available |
| pH (as is) | : Not available |
| Relative Evaporation Rate (butylacetate=1) | : Not available |
| Melting Point | : Not available |
| Freezing Point | : Not available |
| Boiling Point | : 100-105°C (212-221°F) |
| Flash Point | : Not available |
| Auto-ignition Temperature | : Not available |
| Decomposition Temperature | : Not available |
| Flammability (solid, gas) | : Not flammable |
| Lower Flammable Limit | : Not available |
| Upper Flammable Limit | : Not available |
| Vapor Pressure | : Not available |
| Relative Vapor Density at 20°C | : Not available |
| Relative Density | : Not available |
| Specific Gravity | : 1.41 |
| Solubility | : Water: Complete |
| Partition coefficient: n-octanol/water | : Not available |
| Viscosity | : Not available |
| Explosion Data – Sensitivity to Mechanical Impact | : Not expected to present an explosion hazard due to mechanical impact. |
| Explosion Data – Sensitivity to Static Discharge | : Not expected to present an explosion hazard due to static discharge. |

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SECTION 10: STABILITY AND REACTIVITY

Reactivity: Thermal decomposition generates corrosive vapors. Reacts violently with strong bases.

Chemical Stability: Stable under recommended handling and storage conditions (see section 7).

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Freezing. Storage at high temperatures. Incompatible materials.

Incompatible Materials: Bases. Stainless steel, leather, non-acid proof metals (aluminum, copper, iron). Contact with metals may release flammable hydrogen gas.

Hazardous Decomposition Products: Thermal decomposition generates: Corrosive vapors. Hydrogen chloride.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity: Not classified.

LD50 and LC50 Data: Not available.

Skin Corrosion/Irritation: Causes skin irritation. (pH: N/A)

Serious Eye Damage/Irritation: Causes serious eye damage. (pH: N/A)

Respiratory or Skin Sensitization: Not classified.

Germ Cell Mutagenicity: Not classified.

Teratogenicity: Not classified.

Carcinogenicity: Not classified.

Specific Target Organ Toxicity (Repeated Exposure): Not classified.

Reproductive Toxicity: Not classified.

Specific Target Organ Toxicity (Single Exposure): Not classified.

Aspiration Hazard: Not classified.

Symptoms/Injuries After Inhalation: None.

Symptoms/Injuries After Skin Contact: Causes irritation.

Symptoms/Injuries After Eye Contact: Causes serious eye damage.

Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: None known.

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

| Iron trichloride (7705-08-0) | |
|-------------------------------|---------------------------------------|
| LD50 Oral Rat | 220 mg/kg |
| Hydrochloric Acid (7647-01-0) | |
| LD50 Oral Rat | 700 mg/kg |
| LD50 Dermal Rabbit | >5010 mg/kg |
| LC50 Inhalation Rat | 781 ppm/4h (reported as 3124 ppm/1 h) |
| IARC Group | 3 |

ECOLOGICAL INFORMATION

Toxicity

Ecology - General and Ecology - Water: Not available.

| Iron trichloride (7705-08-0) | |
|------------------------------|---|
| LC50 Fish 1 | 59 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus) |
| EC50 Daphnia 1 | 27 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static]) |

Persistence and Degradability: Not available.

Bioaccumulative Potential: No data available.

Mobility in Soil: Not available.

Other Adverse Effects: Not available.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations. Contaminated packaging is classified as hazardous waste and must be disposed of in accordance with all local, regional, national, provincial, territorial and international regulations.

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Ecology – Waste Materials: Not available.

SECTION 14: TRANSPORT INFORMATION

14.1 In Accordance with DOT

Proper Shipping Name : Ferric chloride, solution
Hazard Class : 8
Identification Number : UN2582
Label Codes : 8
Packing Group : III
ERG Number : 154



14.2 In Accordance with IMDG

Proper Shipping Name : Ferric chloride, solution
Hazard Class : 8
Identification Number : UN2582
Packing Group : III
Label Codes : 8
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-B



14.3 In Accordance with IATA

Proper Shipping Name : Ferric chloride, solution
Packing Group : III
Identification Number : UN2582
Hazard Class : 8
Label Codes : 8
ERG Code (IATA) : 8L



14.4 In Accordance with TDG

Proper Shipping Name : Ferric chloride, solution
Packing Group : III
Hazard Class : 8
Identification Number : UN2582
Label Codes : 8



SECTION 15: REGULATORY INFORMATION

US Federal Regulations

| | |
|--|----------------------------------|
| AF 35 (AFCO 8752) | |
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard. |
| Iron trichloride (7705-08-0) | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory. | |
| Hydrochloric Acid (7647-01-0) | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory. | |

US State Regulations:

| |
|---|
| Hydrochloric acid (7647-01-0) |
| U.S. - California - SCAQMD - Toxic Air Contaminants - Non-Cancer Acute |
| U.S. - California - SCAQMD - Toxic Air Contaminants - Non-Cancer Chronic |
| U.S. - California - Toxic Air Contaminant List (AB 1807, AB 2728) |
| U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances |
| U.S. - New Jersey - Environmental Hazardous Substances List |
| RTK - U.S. - New Jersey - Right to Know Hazardous Substance List |
| U.S. - New Jersey - Special Health Hazards Substances List |
| U.S. - New Jersey - TCPA - Extraordinarily Hazardous Substances (EHS) |
| U.S. - New York - Occupational Exposure Limits - Ceilings |
| U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances |
| RTK - U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List |

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RTK - U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

Canadian Regulations

Hydrochloric acid (7647-01-0)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Iron trichloride (7705-08-0)

Listed on the Canadian DSL (Domestic Substances List) inventory.

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision date : 04/01/2024

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

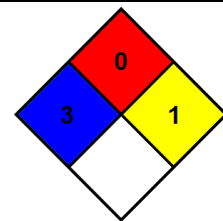
GHS Full Text Phrases:

| | |
|---------------------------------------|--|
| Acute Tox. 3 (Inhalation: dust, mist) | Acute toxicity (inhalation: dust, mist) Category 3 |
| Acute Tox. 4 (Oral) | Acute toxicity (oral) Category 4 |
| Aquatic Acute 2 | Hazardous to the aquatic environment - Acute Hazard Category 2 |
| Eye Dam. 1 | Serious eye damage/eye irritation Category 1 |
| Metal Corr. 1 | Corrosive to metals Category 1 |
| Skin Corr. 1B | Skin corrosion/irritation Category 1B |
| Skin Irrit. 2 | Causes skin corrosion |
| STOT SE 3 | Specific target organ toxicity (single exposure) Category 3 |
| H290 | May be corrosive to metals. |
| H302 | Harmful if swallowed |
| H314 | Causes severe skin burns and eye damage |
| H315 | Causes skin irritation |
| H318 | Causes serious eye damage |
| H331 | Toxic if inhaled |
| H335 | May cause respiratory irritation |
| H401 | Toxic to aquatic life |

NFPA Health Hazard : 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.

NFPA Fire Hazard : 0 - Materials that will not burn.

NFPA Reactivity : 1 - Normally stable, but can become unstable at elevated temperatures and pressures or may react with water with some release of energy, but not violently.



HMIS III Rating

Health : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given.

Flammability : 0 - Minimal Hazard.

Physical : 1 - Slight Hazard.

Party Responsible for the Preparation of This Document

AFCO
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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

North America GHS SDS 2015 (U.S., Can., Mex.)