

# SAFETY DATA SHEET

Issue Date 08-Mar-2021 Revision Date 08-Feb-2023 Version 3.9 Page 1 / 14

### 1. IDENTIFICATION

**Product identifier** 

Product Name Monochlor F<sup>™</sup> Reagent

Other means of identification

Product Code(s) 2802246

Safety data sheet number M01921

UN/ID no UN2680

Recommended use of the chemical and restrictions on use

**Recommended Use** Determination of monochloramine and ammonia. Water Analysis.

**Uses advised against** None. **Restrictions on use** None.

Details of the supplier of the safety data sheet

#### **Manufacturer Address**

Hach Company, P.O.Box 389, Loveland, CO 80539, USA, +1(970) 669-3050

#### Emergency telephone number

+1(303) 623-5716 - 24 Hour Service

## 2. HAZARDS IDENTIFICATION

### Classification

### **Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin corrosion/irritation	Category 1 Sub-category A
Serious eye damage/eye irritation	Category 1

### Hazards not otherwise classified (HNOC)

Not applicable

### Label elements

## Signal word

Danger



EN / AGHS Page 1/14

Product Name Monochlor F™ Reagent Revision Date 08-Feb-2023

### **Hazard statements**

H314 - Causes severe skin burns and eye damage

#### **Precautionary statements**

P260 - Do not breathe dust/fume/gas/mist/vapors/spray

P280 - Wear protective gloves, protective clothing, eve protection, and face protection

P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting

P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

Page 2/14

P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

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

P363 - Wash contaminated clothing before reuse

P405 - Store locked up

P501 - Dispose of contents/ container to an approved waste disposal plant

#### Other Hazards Known

May be harmful if swallowed

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### **Substance**

Not applicable

#### **Mixture**

Percent ranges are used where confidential product information is applicable.

Chemical name	CAS No	Percent Range	HMRIC #
Lithium hydroxide monohydrate	1310-66-3	<10%	-
Sodium nitroferricyanide	14402-89-2	1 - 5%	-

## 4. FIRST AID MEASURES

#### Description of first aid measures

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

attendance.

**Inhalation** Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical

attention immediately. 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. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur. Get immediate medical

advice/attention.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep

eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present

and easy to do. Continue rinsing. Get immediate medical advice/attention.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated clothes

and shoes. Get immediate medical advice/attention.

Ingestion Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water.

Never give anything by mouth to an unconscious person. Get immediate medical

advice/attention.

Self-protection of the first aider Ensure that medical personnel are aware of the material(s) involved, take precautions to

EN / AGHS Page 2/14

**Product Name** Monochlor F<sup>™</sup> Reagent **Revision Date** 08-Feb-2023

Page 3 / 14

protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.

Most important symptoms and effects, both acute and delayed

**Symptoms** Burning sensation.

Indication of any immediate medical attention and special treatment needed

Note to physicians Product is a corrosive material. Use of gastric lavage or emesis is contraindicated.

Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood

pressure may occur with moist rales, frothy sputum, and high pulse pressure.

5. FIRE-FIGHTING MEASURES

surrounding environment.

**Unsuitable Extinguishing Media** Caution: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the The product causes burns of eyes, skin

chemical

The product causes burns of eyes, skin and mucous membranes. Thermal decomposition

can lead to release of irritating gases and vapors.

**Hazardous combustion products** May emit acrid smoke and fumes.

Special protective equipment for

fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

Use personal protection equipment.

## 6. ACCIDENTAL RELEASE MEASURES

U.S. Notice Only persons properly qualified to respond to an emergency involving hazardous

substances may respond to a spill according to federal regulations (OSHA 29 CFR

1910.120(a)(v)) and per your company's emergency response plan and

guidelines/procedures. See Section 13, Special Instructions for disposal assistance. Outside of the US, only persons properly qualified according to state or local regulations should

respond to a spill involving chemicals.

Personal precautions, protective equipment and emergency procedures

Personal precautions Attention! Corrosive material. Avoid contact with skin, eyes or clothing. Ensure adequate

ventilation. Use personal protective equipment as required. Evacuate personnel to safe

areas. Keep people away from and upwind of spill/leak.

**Other Information** Refer to protective measures listed in Sections 7 and 8.

Environmental precautions

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Should not be released into the

environment. Do not allow to enter into soil/subsoil. Prevent product from entering drains.

Methods and material for containment and cleaning up

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up**Take up mechanically, placing in appropriate containers for disposal.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

EN / AGHS Page 3/14

**Product Name** Monochlor F<sup>™</sup> Reagent Revision Date 08-Feb-2023

Page 4 / 14

See section 8 for more information. See section 13 for more information. Reference to other sections

### 7. HANDLING AND STORAGE

#### Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with

skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat. drink or smoke when using this product. Take off contaminated clothing and wash before

### Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from **Storage Conditions** 

moisture. Store locked up. Keep out of the reach of children. Store away from other

materials.

Flammability class Not applicable

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Control parameters

#### **Exposure Guidelines**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Sodium nitroferricyanide CAS#: 14402-89-2	TWA: 1 mg/m³ Fe	TWA: 5 mg/m³ (vacated) TWA: 1 mg/m³ (vacated) TWA: 5 mg/m³	IDLH: 25 mg/m <sup>3</sup> CN TWA: 1 mg/m <sup>3</sup> Fe

Appropriate engineering controls

**Engineering Controls** Showers

Eyewash stations Ventilation systems.

Individual protection measures, such as personal protective equipment

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are

exceeded or irritation is experienced, ventilation and evacuation may be required.

Wear suitable gloves. Impervious gloves. Barrier creams may help to protect the exposed **Hand Protection** 

areas of skin. Gloves must be inspected prior to use. The selected protective gloves have to satisfy the specifications of EU Directive 2016/425 and the standard EN 374 derived from it. Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN

374-1:2016.

Eye/face protection Face protection shield.

Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Avoid Skin and body protection

contact with eyes, skin and clothing.

**General Hygiene Considerations** Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do

not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

EN / AGHS Page 4/14

Product Name Monochlor F™ Reagent Revision Date 08-Feb-2023

**Page** 5/14

Environmental exposure controls Local authorities should be advised if significant spillages cannot be contained. Do not allow

into any sewer, on the ground or into any body of water.

Thermal hazards None under normal processing.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

## Information on basic physical and chemical properties

Physical state

Solid

Appearance powder Odor Odorless

Color light yellow
Odor threshold No data available

<u>Property</u> <u>Values</u> <u>Remarks • Method</u>

Molecular weight No data available

**pH** No data available

Melting point / freezing point No data available

Initial boiling point and boiling range No data available

Evaporation rate Not applicable

Vapor pressure Not applicable

Relative vapor density

No data available

Specific Gravity 0.7660

Partition coefficient log Kow ~ 0.58

**Soil Organic Carbon-Water Partition** 

Coefficient

log Koc ~ 0.05

Autoignition temperature No data available

**Decomposition temperature** No data available

Dynamic viscosity

Not applicable

Kinematic viscosity

Not applicable

Solubility(ies)

### Water solubility

Water solubility classification	Water solubility_	Water Solubility Temperature_
No information available	No data available	No information available

### Solubility in other solvents

<u>Chemical Name</u>	Solubility classification	<u>Solubility</u>	Solubility Temperature
None reported	No information available	No data available	No information available

### **Other information**

### **Metal Corrosivity**

Steel Corrosion RateNo data availableAluminum Corrosion RateNo data available

EN / AGHS Page 5/14

Product Name Monochlor F™ Reagent Revision Date 08-Feb-2023

**Page** 6 / 14

### **Volatile Organic Compounds (VOC) Content**

Not applicable

Chemical name	CAS No	Volatile organic compounds (VOC) content	CAA (Clean Air Act)
Lithium hydroxide monohydrate	1310-66-3	No data available	-
Sodium nitroferricyanide	14402-89-2	No data available	-

### **Explosive properties**

Upper explosion limitNo data availableLower explosion limitNo data available

Flammable properties

Flash point Not applicable

Flammability Limit in Air

Upper flammability limit:No data availableLower flammability limit:No data available

Oxidizing properties No data available.

Bulk density 766.0 kg/m<sup>3</sup>

### 10. STABILITY AND REACTIVITY

### Reactivity

Not applicable.

### **Chemical stability**

Stable under normal conditions.

### **Explosion data**

Sensitivity to Mechanical Impact None. Sensitivity to Static Discharge None.

#### Possibility of hazardous reactions

None under normal processing.

#### **Hazardous polymerization**

None under normal processing.

### Conditions to avoid

Exposure to air or moisture over prolonged periods.

### Incompatible materials

Acids. Bases. Oxidizing agent.

## Hazardous decomposition products

Contact with acids/acid fumes releases toxic cyanide gas. Cyanide. Nitrogen oxides. Sodium oxides.

### 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

EN / AGHS Page 6/14

Product Name Monochlor F™ Reagent Revision Date 08-Feb-2023
Page 7 / 14

#### **Product Information**

**Inhalation** Corrosive by inhalation. Inhalation of corrosive fumes/gases may cause coughing, choking,

headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs.

Pulmonary edema can be fatal.

Eye contact Causes burns. Corrosive to the eyes and may cause severe damage including blindness.

Causes serious eye damage. May cause irreversible damage to eyes.

**Skin contact** Corrosive. Causes severe burns. Avoid contact with skin and clothing.

**Ingestion** Causes burns. Ingestion causes burns of the upper digestive and respiratory tracts. May

cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung

damage if swallowed. May be fatal if swallowed and enters airways.

Symptoms Redness. Burning. May cause blindness. Coughing and/ or wheezing.

**Acute toxicity** 

Based on available data, the classification criteria are not met

**Mixture** 

No data available.

**Ingredient Acute Toxicity Data** 

Test data reported below.

#### **Oral Exposure Route**

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Lithium hydroxide monohydrate (<10%) CAS#: 1310-66-3	Rat LD₅o	120 mg/kg	None reported	None reported	LOLI
Sodium nitroferricyanide (1 - 5%) CAS#: 14402-89-2	Rat LD₅o	99 mg/kg	None reported	None reported	LOLI

#### Inhalation (Dust/Mist) Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Lithium hydroxide monohydrate (<10%) CAS#: 1310-66-3	Rat LC50	0.96 mg/L	4 hours	None reported	LOLI

#### **Unknown Acute Toxicity**

0.01% of the mixture consists of ingredient(s) of unknown toxicity.

### **Acute Toxicity Estimations (ATE)**

The following values are calculated based on chapter 3.1 of the GHS document

EN / AGHS Page 7/14

Product Name Monochlor F™ Reagent Revision Date 08-Feb-2023
Page 8 / 14

ATEmix (oral)	2,503.20 mg/kg
ATEmix (dermal)	No information available
ATEmix (inhalation-dust/mist)	No information available
ATEmix (inhalation-vapor)	No information available
ATEmix (inhalation-gas)	No information available

#### Skin corrosion/irritation

Causes severe burns.

#### **Mixture**

No data available.

### Ingredient Skin Corrosion/Irritation Data

Test data reported below.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Lithium hydroxide monohydrate (<10%) CAS#: 1310-66-3	Existing human experience	Human	None reported	None reported	Corrosive to skin	ERMA

### Serious eye damage/irritation

Classification based on data available for ingredients. Causes burns. Risk of serious damage to eyes.

#### **Mixture**

No data available.

#### Ingredient Eye Damage/Eye Irritation Data

No data available.

### Respiratory or skin sensitization

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

#### Mixture

No data available.

### **Ingredient Sensitization Data**

No data available.

## STOT - single exposure

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

#### **Mixture**

No data available.

## Ingredient Specific Target Organ Toxicity Single Exposure Data

No data available.

### STOT - repeated exposure

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

#### **Mixture**

No data available.

### Ingredient Specific Target Organ Toxicity Repeat Exposure Data

No data available.

### Carcinogenicity

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

EN / AGHS Page 8/14

**Product Name** Monochlor F™ Reagent **Revision Date** 08-Feb-2023

**Page** 9/14

#### **Mixture**

No data available.

#### **Ingredient Carcinogenicity Data**

No data available.

Chemical name	CAS No	ACGIH	IARC	NTP	OSHA
Lithium hydroxide	1310-66-3	-	-	-	-
monohydrate					
Sodium nitroferricyanide	14402-89-2	=	-	-	-

#### Legend

ACGIH (American Conference of Governmental Industrial Hygienists)	Does not apply
IARC (International Agency for Research on Cancer)	Does not apply
NTP (National Toxicology Program)	Does not apply
OSHA	Does not apply

#### **Germ cell mutagenicity**

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

#### Mixture invitro Data

No data available.

### Substance invitro Data

No data available.

#### Mixture invivo Data

No data available.

#### Substance invivo Data

No data available.

### Reproductive toxicity

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

#### Mixture

No data available.

### **Ingredient Reproductive Toxicity Data**

No data available.

#### **Aspiration hazard**

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

### 12. ECOLOGICAL INFORMATION

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

**Unknown aquatic toxicity** 0.01% of the mixture consists of components(s) of unknown hazards to the aquatic

environment.

#### **Mixture**

## **Aquatic Acute Toxicity**

No data available.

## **Aquatic Chronic Toxicity**

No data available.

EN / AGHS Page 9/14

**Product Name** Monochlor F™ Reagent **Revision Date** 08-Feb-2023

**Page** 10 / 14

#### **Substance**

Aquatic Acute Toxicity
Test data reported below.

**Aquatic Chronic Toxicity** 

No data available.

Persistence and degradability

Mixture

No data available.

Bioaccumulation

MATERIAL DOES NOT BIOACCUMULATE

**Mixture** 

No data available.

Partition coefficient log K<sub>ow</sub> ~ 0.58

**Mobility** 

Soil Organic Carbon-Water Partition Coefficient  $\log K_{oc} \sim 0.05$ 

Other adverse effects

No information available

Chemical name	EU - Endocrine Disrupters Candidate List	EU - Endocrine Disrupters - Evaluated Substances	Endocrine disrupting potential
Sodium nitroferricyanide (1 - 5%)	Group III Chemical	-	-
CAS#: 14402-89-2			

### 13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused

products

Dispose of in accordance with local regulations. Dispose of waste in accordance with

environmental legislation.

**Contaminated packaging** Do not reuse empty containers.

US EPA Waste Number D002

**Special instructions for disposal** Dispose of material in an E.P.A. approved hazardous waste facility.

## 14. TRANSPORT INFORMATION

DOT

UN/ID no UN2680

Proper shipping name Lithium Hydroxide

Transport hazard class(es) 8
Packing Group | |

**Description** UN2680, Lithium hydroxide, 8, II

Emergency Response Guide

Number

154

TDG

UN/ID no UN2680

EN / AGHS Page 10/14

**Product Name** Monochlor F<sup>™</sup> Reagent **Revision Date** 08-Feb-2023

Page 11 / 14

Proper shipping name Lithium hydroxide

Transport hazard class(es) 8
Packing Group | |

**Description** UN2680, Lithium hydroxide, 8, II

IATA

UN number or ID number UN2680

Proper shipping name Lithium hydroxide

Transport hazard class(es) 8
Packing group | | |
ERG Code 8|

**IMDG** 

UN number or ID number UN2680

Proper shipping name Lithium hydroxide

Transport hazard class(es) 8
Packing Group | |

**EmS-No** F-A, S-B

**Note:** No special precautions necessary.

#### **Additional information**

There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods. If the item is not in a reagent set or kit, the classification given above applies.

If the item is part of a reagent set or kit the classification would change to the following:

UN3316 Chemical Kit, Hazard Class 9, Packing Group II or III.

If the item is not regulated, the Chemical Kit classification does not apply.

#### 15. REGULATORY INFORMATION

**National Inventories** 

TSCA Complies DSL/NDSL Complies

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

**International Inventories** 

**EINECS/ELINCS** Complies

**ENCS** Does not comply

IECSCCompliesKECL - Existing substancesCompliesPICCSCompliesTCSICompliesAICSCompliesNZIOCComplies

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

TCSI - Taiwan Chemical Substances Inventory

**AICS** - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

#### **US 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

EN / AGHS Page 11/14

Product Name Monochlor F™ Reagent Revision Date 08-Feb-2023

Page 12 / 14

Chemical name	SARA 313 - Threshold Values %		
Sodium nitroferricyanide (CAS #: 14402-89-2)	1.0		

### SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

#### **CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sodium nitroferricyanide	-	X	Χ	-
14402-89-2				

#### **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

#### **US State Regulations**

#### California Proposition 65

This product does not contain any Proposition 65 chemicals

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

This product may contain substances regulated by state right-to-know regulations.

Chemical name	New Jersey	Massachusetts	Pennsylvania
Lithium hydroxide monohydrate	X	-	-
1310-66-3			
Sodium nitroferricyanide	X	-	X
14402-89-2			

### **U.S. EPA Label Information**

### 16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

### **Special Comments**

None

### **Additional information**

#### Global Automotive Declarable Substance List (GADSL)

Not applicable

### **NFPA and HMIS Classifications**

ſ	NFPA	Health hazards - 3	Flammability - 0	Instability - 0	Physical and chemical
-					properties -
Ī	HMIS	Health hazards - 3	Flammability - 0	Physical hazards - 0	Personal protection -
-			-	-	X
					- I

EN / AGHS Page 12/14

Product Name Monochlor F™ Reagent

Revision Date 08-Feb-2023

Page 13 / 14

#### Key or legend to abbreviations and acronyms used in the safety data sheet

ACGIH (American Conference of Governmental Industrial Hygienists)

ATSDR ATSDR (Agency for Toxic Substances and Disease Registry)
CCRIS (Chemical Carcinogenesis Research Information System)

CDC (Center for Disease Control)

CEPA (Canadian Environmental Protection Agency)

CICAD CICAD (Concise International Chemical Assessment Documents)

ECHA ECHA (The European Chemicals Agency)
EEA EEA (European Environment Agency)
EPA EPA (Environmental Protection Agency)

ERMA ERMA (New Zealands Environmental Risk Management Authority)

ECOSARS Estimation through ECOSARS v1.11 part of the Estimation Programs Interface (EPI) Suite™

FDA FDA (Food & Drug Administration)

GESTIS GESTIS (Information System on Hazardous Substances of the German Social Accident

Insurance)

HSDB (Hazardous Substances Data Bank)

INERIS INERIS (The National Industrial Environment and Risks Institute)
IPCS INCHEM IPCS INCHEM (International Programme on Chemical Safety)
IUCLID IUCLID (The International Uniform Chemical Information Database)
NITE Japan National Institute of Technology and Evaluation (NITE)

NIH (National Institutes of Health)

NIOSH NIOSH (National Institute for Occupational Safety and Health)
LOLI (List of Lists - An International Chemical Regulatory Database)

NDF no data

NICNAS Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH IDLH Immediately Dangerous to Life or Health

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

PEEN (Pan European Ecological Network)

RTECS (Registry of Toxic Effects of Chemical Substances)
SIDS (Screening Information Dataset) for High Volume Chemicals

SYKE The Finnish Environment Institute (SYKE)
USDA USDA (United States Department of Agriculture)
USDC USDC (United States Department of Commerce)

WHO (World Health Organization)

#### Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)

MAC Maximum Allowable Concentration Ceiling Ceiling Limit Value

X Listed Vacated These values have no official status. The only

binding levels of contaminants are those listed in the final OSHA PEL. These lists are for reference purposes only. Please note that some reference state regulations of these "liberated" exposure limits in their state

regulations.

SKN\* Skin designation SKN+ Skin sensitization
RSP+ Respiratory sensitization \*\* Hazard Designation
C Carcinogen R Reproductive toxicant

M mutagen

Prepared By Hach Product Compliance Department

Issue Date 08-Mar-2021

Revision Date 08-Feb-2023

Revision Note None

EN / AGHS Page 13/14

Product Name Monochlor F™ Reagent Revision Date 08-Feb-2023
Page 14 / 14

### **Disclaimer**

USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.

HACH COMPANY©2022

**End of Safety Data Sheet** 

EN / AGHS Page 14/14