

SAFETY DATA SHEET

Issue Date 08-Mar-2021 Revision Date Version 3.4 Page 1 / 14

10-Aug-2021

1. IDENTIFICATION

Product identifier

Product Name Monochlor F™ Reagent

Other means of identification

Product Code(s) 2802299

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)

| Acute toxicity - Oral | Category 4 |
|-----------------------------------|---------------------------|
| 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

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Hazard statements

H302 - Harmful if swallowed

H314 - Causes severe skin burns and eye damage

Precautionary statements

P270 - Do not eat, drink or smoke when using this product

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

P280 - Wear protective gloves, protective clothing, eye 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

P363 - Wash contaminated clothing before reuse

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

P405 - Store locked up

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

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

Other Hazards Known

None

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 # |
|---|------------|------------------|---------|
| Butanedioic acid, 2,3-dihydroxy-[R-(R*,R*)]-, disodium salt | 868-18-8 | 20 - 30% | - |
| 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 Show this safety data sheet to the doctor in attendance. Immediate medical attention is

required.

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

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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.

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

> protect themselves and prevent spread of contamination. Avoid contact with skin, eves 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

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the

surrounding environment.

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

Specific hazards arising from the

chemical

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

can lead to release of irritating gases and vapors.

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

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

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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 Pick up and transfer to properly labeled containers.

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

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

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 reuse.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach

of children. Protect from moisture. Store locked up. 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 | TWA: 1 mg/m ³ Fe | TWA: 5 mg/m ³ | IDLH: 25 mg/m ³ CN |
| CAS#: 14402-89-2 | | (vacated) TWA: 1 mg/m ³ | TWA: 1 mg/m ³ Fe |
| | | (vacated) TWA: 5 mg/m ³ | - |
| | | * | |

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.

Hand Protection Wear suitable gloves. Impervious gloves.

Eye/face protection Face protection shield.

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

contact with eyes, skin and clothing.

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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.

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

Property Values Remarks • Method

No data available Molecular weight

No data available pН

Melting point/freezing point No data available

Boiling point / boiling range No data available

Evaporation rate Not applicable

Vapor pressure Not applicable

Relative vapor density No data available

Specific gravity (water = 1 / air = 1) 0.7660

Partition Coefficient (n-octanol/water) $log K_{ow} \sim 0.58$

Soil Organic Carbon-Water Partition log Koc ~ 0.05

Coefficient

Autoignition temperature

No data available

No data available

Decomposition temperature

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

| Chemical Name_ | Solubility classification | <u>Solubility</u> | Solubility Temperature_ |
|----------------|---------------------------|-------------------|--------------------------|
| None reported | No information available | No data available | No information available |

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Other information

Metal Corrosivity

Steel Corrosion RateNo data availableAluminum Corrosion RateNo data available

Volatile Organic Compounds (VOC) Content

Not applicable

| Chemical name | CAS No | Volatile organic compounds (VOC) content | CAA (Clean Air Act) |
|---|------------|--|---------------------|
| Butanedioic acid, 2,3-dihydroxy-[R-(R*,R*)]-, disodium salt | 868-18-8 | No data available | - |
| 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/m³

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

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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

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 May cause irritation.

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

Product Acute Toxicity Data

No data available.

Ingredient Acute Toxicity Data

No data available.

| Chemical name | Endpoint | Reported | Exposure | Toxicological effects | Key literature references and |
|-----------------------|------------------|------------|----------|-----------------------|-------------------------------|
| | type | dose | time | | sources for data |
| Butanedioic acid, | Mouse | 4360 mg/kg | None | None reported | EPA (United States |
| 2,3-dihydroxy-[R-(R*, | LD50 | | reported | | Environmental Protection |
| R*)]-, disodium salt | | | | | Agency) |
| (20 - 30%) | | | | | |
| CAS#: 868-18-8 | | | | | |
| Lithium hydroxide | Rat | 120 mg/kg | None | None reported | LOLI |
| monohydrate | LD ₅₀ | | reported | · | |
| (<10%) | | | • | | |
| CAS#: 1310-66-3 | | | | | |
| Sodium | Rat | 99 mg/kg | None | None reported | LOLI |
| nitroferricyanide | LD ₅₀ | | reported | · | |
| (1 - 5%) | | | - | | |
| CAS#: 14402-89-2 | | | | | |
| Chemical name | Endpoint | Reported | Exposure | Toxicological effects | Key literature references and |
| | type | dose | time | - | sources for data |
| Lithium hydroxide | Rat | 0.96 mg/L | 4 hours | None reported | LOLI |

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| 1 | monohydrate | LC50 | | |
|---|-----------------|------|--|--|
| - | (<10%) | | | |
| - | CAS#: 1310-66-3 | | | |

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

| ATEmix (oral) | 1,652.00 mg/kg | | | |
|-------------------------------|--------------------------|--|--|--|
| ATEmix (dermal) | No information available | | | |
| ATEmix (inhalation-dust/mist) | 11.40 mg/l | | | |
| ATEmix (inhalation-vapor) | No information available | | | |
| ATEmix (inhalation-gas) | No information available | | | |

Skin corrosion/irritation

May cause skin irritation.

Product Skin Corrosion/Irritation Data

No data available.

Ingredient Skin Corrosion/Irritation Data

No data available.

| 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 (New Zealands Environmental Risk Management Authority) |

Serious eye damage/irritation

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

Product Serious Eye Damage/Eye Irritation Data

No data available.

Ingredient Eye Damage/Eye Irritation Data

No data available.

| Chemical name | Test method | Species | Reported dose | Exposure time | Results | Key literature references and sources for data |
|--|---------------|---------|------------------|------------------|-------------------------------------|--|
| Butanedioic acid, 2,3-dihydroxy-[R-(R*, R*)]-, disodium salt (20 - 30%) CAS#: 868-18-8 | None reported | Human | None reported | None reported | Not corrosive or irritating to eyes | ECHA (The European Chemicals Agency) |

Respiratory or skin sensitization

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

Product Sensitization Data

No data available.

Ingredient Sensitization Data

No data available.

| Chemical name | Test method | Species | Results | Key literature references and |
|---------------|-------------|---------|---------|-------------------------------|
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| | | | | sources for data |
|--|---------------|---------|---------------------------------------|--|
| Butanedioic acid, 2,3-dihydroxy-[R-(R*, R*)]-, disodium salt (20 - 30%) CAS#: 868-18-8 | None reported | Human | Not confirmed to be a skin sensitizer | ECHA (The European Chemicals Agency) |
| Chemical name | Test method | Species | Results | Key literature references and sources for data |
| Butanedioic acid, 2,3-dihydroxy-[R-(R*, R*)]-, disodium salt (20 - 30%) CAS#: 868-18-8 | None reported | Human | Not confirmed to be a skin sensitizer | ECHA (The European Chemicals Agency) |

STOT - single exposure

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

Product Specific Target Organ Toxicity Single Exposure Data

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.

Product Specific Target Organ Toxicity Repeat Dose Data

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.

Product Carcinogenicity Data

No data available.

Ingredient Carcinogenicity Data

No data available.

| Chemical name | CAS No | ACGIH | IARC | NTP | OSHA |
|-----------------------------|------------|-------|------|-----|------|
| Butanedioic acid, | 868-18-8 | - | - | = | - |
| 2,3-dihydroxy-[R-(R*,R*)]-, | | | | | |
| disodium salt | | | | | |
| 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 (Occupational Safety and Health Administration of the US Department of | Does not apply |
| Labor) | |

Germ cell mutagenicity

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

Product Germ Cell Mutagenicity invitro Data

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No data available.

Ingredient Germ Cell Mutagenicity invitro Data

No data available.

Product Germ Cell Mutagenicity invivo Data

No data available.

Ingredient Germ Cell Mutagenicity invivo Data

No data available.

Reproductive toxicity

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

Product Reproductive Toxicity Data

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

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

environment.

Product Ecological Data

Aquatic Acute Toxicity

No data available.

Aquatic Chronic Toxicity

No data available.

Ingredient Ecological Data

Aquatic Acute Toxicity

No data available.

| Chemical name | Exposure time | Species | Endpoint type | Reported dose | Key literature references and sources for data |
|--|---------------|---------------|------------------|---------------|---|
| Butanedioic acid, 2,3-dihydroxy-[R-(R*, R*)]-, disodium salt (20 - 30%) CAS#: 868-18-8 | 96 hours | None reported | LC50 | 612000 mg/L | Estimation through ECOSARS v1.11 part of the Estimation Programs Interface (EPI) Suite™ |
| Chemical name | Exposure time | Species | Endpoint type | Reported dose | Key literature references and sources for data |
| Butanedioic acid, 2,3-dihydroxy-[R-(R*, R*)]-, disodium salt (20 - 30%) CAS#: 868-18-8 | 48 Hours | None reported | LC50 | 263000 mg/L | Estimation through ECOSARS v1.11 part of the Estimation Programs Interface (EPI) Suite™ |
| Chemical name | Exposure time | Species | Endpoint type | Reported dose | Key literature references and sources for data |
| Butanedioic acid, | 96 hours | None reported | EC ₅₀ | 623770 mg/L | Estimation through ECOSARS |

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| 2,3-dihydroxy-[R-(R*, | | | v1.11 part of the Estimation |
|-----------------------|--|--|---------------------------------|
| R*)]-, disodium salt | | | Programs Interface (EPI) Suite™ |
| (20 - 30%) | | | , , |
| CAS#: 868-18-8 | | | |

Aquatic Chronic Toxicity

No data available.

Persistence and degradability

Product Biodegradability Data

No data available.

Bioaccumulation

MATERIAL DOES NOT BIOACCUMULATE

Product Bioaccumulation Data

No data available.

Partition Coefficient (n-octanol/water) log Kow ~ 0.58

Mobility

log Koc ~ 0.05 **Soil Organic Carbon-Water Partition Coefficient**

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) **Packing Group** Ш

Description UN2680, Lithium hydroxide, 8, II

Emergency Response Guide

Number

154

TDG

UN/ID no UN2680

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Proper shipping name Lithium hydroxide

Transport hazard class(es) 8

Packing Group

Description UN2680, Lithium hydroxide, 8, II

IATA

UN2680 **UN** number or ID number

Proper shipping name Lithium hydroxide

Transport hazard class(es) 8 Packing group Ш **ERG Code** 81

IMDG

UN number or ID number UN2680

Proper shipping name Lithium hydroxide

Transport hazard class(es) **Packing Group** Ш

EmS-No F-A, S-B

No special precautions necessary. Note:

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

Complies **TSCA 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 Does not comply **ENCS**

Complies **IECSC** Complies **KECL - Existing substances PICCS** Complies Complies **TCSI AICS** Complies Complies **NZIoC**

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

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical

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or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

| 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 14402-89-2 | - | Х | Х | - |

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 does not contain any substances regulated by state right-to-know regulations.

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

U.S. EPA Label Information

| Chemical name | FIFRA | FDA |
|---|-------|-----------------|
| Butanedioic acid, 2,3-dihydroxy-[R-(R*,R*)]-, | - | 21 CFR 184.1801 |
| disodium salt | | |

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

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

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

NIOSH IDLH Immediately Dangerous to Life or Health

ACGIH ACGIH (American Conference of Governmental Industrial Hygienists)

NDF no data

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

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

M mutagen

Prepared By Hach Product Compliance Department

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Revision Note None

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.**

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End of Safety Data Sheet

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