

SAFETY DATA SHEET

Issue Date 04-May-2021 **Revision Date** 26-Jan-2024 **Version** 4.8 **Page** 1 / 17

1. IDENTIFICATION

Product identifier

Product Name Fluoride Standard Solution 0.8 mg/l as F

Other means of identification

Product Code(s) 40508

Safety data sheet number M00606

Recommended use of the chemical and restrictions on use

Recommended Use Standard solution. Water Analysis.

Uses advised against Consumer use.

Restrictions on use For Laboratory Use Only.

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 not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Signal word

None

Hazard statements

The product contains no substances which at their given concentration, are considered to be hazardous to health

Other Hazards Known

None

3. COMPOSITION/INFORMATION ON INGREDIENTS

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Substance Not applicable

Mixture

Chemical Family Mixture.

Chemical nature aqueous solution.

Percent ranges are used where confidential product information is applicable.

| Chemical name | CAS No | Percent Range | HMRIC # |
|-----------------|-----------|------------------|---------|
| Formaldehyde | 50-00-0 | <0.1% | - |
| Methanol | 67-56-1 | <0.1% | - |
| Sodium fluoride | 7681-49-4 | <0.01% | - |

4. FIRST AID MEASURES

Description of first aid measures

General advice No hazards which require special first aid measures. Use first aid treatment according to the

nature of the injury.

Inhalation Remove to fresh air.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.

Consult a physician.

Skin contact Wash skin with soap and water.

Ingestion Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effects, both acute and delayed

Symptoms See Section 11 for additional Toxicological Information.

Indication of any immediate medical attention and special treatment needed

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

chemical

No information available.

Hazardous combustion products No information available.

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

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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 Ensure adequate ventilation.

Environmental precautions

Environmental precautions See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

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

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, Methods for cleaning up

sawdust). Take up mechanically, placing in appropriate containers for disposal.

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.

Conditions for safe storage, including any incompatibilities

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

Flammability class Not applicable

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

| Chemical name | ACGIH TLV | OSHA PEL | NIOSH |
|-----------------|-------------------------------|---------------------------------------|-------------------------------|
| Formaldehyde | dermal sensitizer;respiratory | TWA: 0.75 ppm | IDLH: 20 ppm |
| CAS#: 50-00-0 | sensitizer | (vacated) TWA: 3 ppm | Ceiling: 0.1 ppm 15 min |
| | STEL: 0.3 ppm | (vacated) STEL: 10 ppm | TWA: 0.016 ppm |
| | TWA: 0.1 ppm | (vacated) Ceiling: 5 ppm | |
| | | STEL: 2 ppm | |
| Methanol | STEL: 250 ppm | TWA: 200 ppm | IDLH: 6000 ppm |
| CAS#: 67-56-1 | TWA: 200 ppm | TWA: 260 mg/m ³ | TWA: 200 ppm |
| | S* | (vacated) TWA: 200 ppm | TWA: 260 mg/m ³ |
| | | (vacated) TWA: 260 mg/m ³ | STEL: 250 ppm |
| | | (vacated) STEL: 250 ppm | STEL: 325 mg/m ³ |
| | | (vacated) STEL: 325 mg/m ³ | |
| | | (vacated) SKN* | |
| Sodium fluoride | TWA: 2.5 mg/m ³ F | TWA: 2.5 mg/m ³ | IDLH: 250 mg/m ³ F |

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| CAS#: 7681-49-4 | (vacated) TWA: 2.5 mg/m ³ | TWA: 2.5 mg/m ³ F |
|-----------------|--------------------------------------|------------------------------|
| | 1 (| |

Appropriate engineering controls

Engineering Controls

Showers

Eyewash stations

Ventilation systems. Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. The type of protective equipment must be selected according to the concentration and amount of the dangerous

substance at the specific workplace.

Individual protection measures, such as personal protective equipment

Respiratory protectionNo protective equipment is needed under normal use conditions. If exposure limits are

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

adequate ventilation.

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

Eve/face protection Wear safety glasses with side shields (or goggles).

Skin and body protection No special protective equipment required. Avoid contact with eyes, skin and clothing.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

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

Liquid

Appearance aqueous solution

ueous solution Color colorless

Odor Odorless Odor threshold No information available

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

Molecular weight No data available

pH ~ 7 @ 20 °C

Melting point / freezing point $\sim 0 \, ^{\circ}\text{C} \, / \, 32 \, ^{\circ}\text{F}$

Initial boiling point and boiling range $\,$ $\,$ $\,$ $^{\circ}$ C $\,$ / $\,$ 212 $\,$ $^{\circ}$ F

Evaporation rate 0.76 (water = 1)

Vapor pressure 23.777 mm Hg / 3.17 kPa at 25 °C / 77 °F

Relative vapor density 0.62

Specific gravity - VALUE 1 0.986

Partition coefficient

Not applicable

Soil Organic Carbon-Water Partition

Not applicable

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Coefficient

Autoignition temperature No data available

Decomposition temperatureNo information available

Dynamic viscosity No information available

Kinematic viscosity

No information available

Solubility(ies)

Water solubility

| Water solubility classification | Water solubility_ | Water Solubility Temperature |
|---------------------------------|-------------------|------------------------------|
| Soluble | > 1000 mg/L | 25 °C / 77 °F |

Solubility in other solvents

| Chemical Name | Solubility classification | Solubility | Solubility Temperature |
|---------------|---------------------------|-------------|------------------------|
| Acid | Soluble | > 1000 mg/L | 25 °C / 77 °F |

Other information

Metal Corrosivity

Steel Corrosion Rate Aluminum Corrosion Rate No data available No data available

Volatile Organic Compounds (VOC) Content

See ingredients information below

| Chemical name | CAS No | Volatile organic compounds (VOC) content | CAA (Clean Air Act) |
|-----------------|-----------|--|---------------------|
| Formaldehyde | 50-00-0 | No data available | Χ |
| Methanol | 67-56-1 | 100% | X |
| Sodium fluoride | 7681-49-4 | Not applicable | - |

Explosive properties

Upper explosion limitNot applicableLower explosion limitNot applicable

Flammable properties

Flash point No data available

Flammability Limit in Air

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

Oxidizing properties No data available.

Bulk density Not applicable

10. STABILITY AND REACTIVITY

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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

None known based on information supplied.

Incompatible materials

Strong oxidizing agents, strong acids, and strong bases.

Hazardous decomposition products

No information available.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation No known effect based on information supplied.

Eye contact No known effect based on information supplied.

Skin contact No known effect based on information supplied.

Ingestion No known effect based on information supplied.

Symptoms No information available.

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 | Reported | Exposure | Toxicological effects | Key literature references and |
|--|-------------|-----------|---------------|-----------------------|-------------------------------|
| | type | dose | time | | sources for data |
| Formaldehyde (<0.1%) CAS#: 50-00-0 | Rat LD₅o | 100 mg/kg | None reported | None reported | GESTIS |
| Sodium fluoride (<0.01%) CAS#: 7681-49-4 | Rat LD50 | 52 mg/kg | None reported | None reported | GESTIS |

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Dermal Exposure Route

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|--|----------------|---------------|---------------|-----------------------|--|
| Formaldehyde (<0.1%) CAS#: 50-00-0 | Rabbit LD₅₀ | 270 mg/kg | None reported | None reported | GESTIS |
| Sodium fluoride (<0.01%) CAS#: 7681-49-4 | Rat LD₅₀ | 175 mg/kg | None reported | None reported | ERMA |

Inhalation (Dust/Mist) Exposure Route

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|--|-------------------------|---------------|---------------|-----------------------|--|
| Formaldehyde (<0.1%) CAS#: 50-00-0 | Rat LC ₅₀ | 0.578 mg/L | 4 hours | None reported | LOLI |

Inhalation (Vapor) Exposure Route

Unknown Acute Toxicity

1E-05% of the mixture consists of ingredient(s) of unknown toxicity.

Acute Toxicity Estimations (ATE)

| ATEmix (oral) | No information available |
|-------------------------------|--------------------------|
| 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

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

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 |
|--|--|---------|------------------|------------------|-------------------------------------|--|
| Formaldehyde (<0.1%) CAS#: 50-00-0 | Standard Draize Test | Human | 0.150 mg | 72 hours | Corrosive to skin | RTECS |
| Methanol (<0.1%) CAS#: 67-56-1 | OECD Test 439: In Vitro Skin Irritation: Reconstructed Human Epidermis (Rhe) Test Method | | None reported | 20 hours | Not corrosive or irritating to skin | ECHA |

Serious eye damage/irritation

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

Mixture

No data available.

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Ingredient Eye Damage/Eye Irritation Data

Test data reported below.

| Chemical name | Test method | Species | Reported dose | Exposure time | Results | Key literature references and sources for data |
|--|--|---------|------------------|------------------|-------------------------------------|--|
| Formaldehyde (<0.1%) CAS#: 50-00-0 | Rinse Test | Human | 1 ppm | 6 minutes | Corrosive to eyes | RTECS |
| Methanol (<0.1%) CAS#: 67-56-1 | OECD Test 439: In Vitro Skin Irritation: Reconstructed Human Epidermis (Rhe) Test Method | | 0.05 mL | 24 hours | Not corrosive or irritating to eyes | ECHA |
| Sodium fluoride (<0.01%) CAS#: 7681-49-4 | Standard Draize Test | Rabbit | 20 mg | 24 hours | Eye irritant | RTECS |

Respiratory or skin sensitization

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

Mixture

No data available.

Ingredient Sensitization Data

Test data reported below.

Skin Sensitization Exposure Route

| Chemical name | Test method | Species | Results | Key literature references and sources for data |
|--|---|------------|---------------------------------------|--|
| Formaldehyde (<0.1%) CAS#: 50-00-0 | Patch test | Human | Confirmed to be a skin sensitizer | ERMA |
| Methanol (<0.1%) CAS#: 67-56-1 | OECD Test No. 406: Skin Sensitization | Guinea pig | Not confirmed to be a skin sensitizer | ECHA |
| Sodium fluoride (<0.01%) CAS#: 7681-49-4 | OECD Test No. 406: Skin Sensitization | Guinea pig | Not confirmed to be a skin sensitizer | ECHA |

Respiratory Sensitization Exposure Route

| Chemical name | Test method | Species | Results | Key literature references and sources for data |
|--------------------------|-------------------------|------------|-------------------------------|--|
| Formaldehyde | IgE Specific | Guinea pig | Confirmed to be a respiratory | CICAD |
| (<0.1%) CAS#: 50-00-0 | Immune Response Test | | sensitizer | |

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

Test data reported below.

Oral Exposure Route

| Chemical name | Endpoint | Reported | Exposure | Toxicological effects | Key literature references and |
|---------------|----------|----------|----------|-----------------------|-------------------------------|
| | | | | | |

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| | type | dose | time | | sources for data |
|--|---------------|-------------|---------------|---|------------------|
| Formaldehyde (<0.1%) CAS#: 50-00-0 | Human LD⊾₀ | 70 mg/kg | None reported | Gastrointestinal Kidney, Ureter, or Bladder Liver Other changes Ulcerated stomach Other changes | RTECS |
| Methanol (<0.1%) CAS#: 67-56-1 | Human LD∟₀ | 143 mg/kg | None reported | Lungs, Thorax, or Respiration Dyspnea | RTECS |
| Sodium fluoride (<0.01%) CAS#: 7681-49-4 | Human TD∟₀ | 0.214 mg/kg | None reported | Gastrointestinal Changes in structure or function of salivary glands Hypermotility Diarrhea | RTECS |

Inhalation (Vapor) Exposure Route

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---------------|------------------|---------------|---------------|-----------------------|--|
| Methanol | Human | 300 mg/L | None reported | Lungs, Thorax, or | RTECS |
| (<0.1%) | TCL₀ | | | Respiration | |
| CAS#: 67-56-1 | | | | Other changes | |

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

Test data reported below.

Oral Exposure Route

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|--|---------------|---------------|---------------|--|--|
| Methanol (<0.1%) CAS#: 67-56-1 | Monkey | 2340 mg/kg | 3 days | None reported | ECHA |
| Sodium fluoride (<0.01%) CAS#: 7681-49-4 | Rat TD∟₀ | 420 mg/kg | 42 days | Brain and Coverings Other degenerative changes Behavioral Somnolence (general depressed activity) Blood Changes in serum composition (e.g. TP, bilirubin, cholesterol) | RTECS |

Inhalation (Dust/Mist) Exposure Route

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|--|---------------|---------------|---------------|---|--|
| Sodium fluoride (<0.01%) CAS#: 7681-49-4 | Rat TC⊾∘ | 1.0 mg/L | 119 days | Biochemical Other degenerative changes Kidney, Ureter, or Bladder Other changes in urine composition Musculoskeletal Changes in teeth and supporting structures | RTECS |

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Inhalation (Vapor) Exposure Route

| Chemical name | Endpoint | Reported | Exposure | Toxicological effects | Key literature references and |
|---------------|----------|------------|----------|-----------------------|-------------------------------|
| | type | dose | time | | sources for data |
| Formaldehyde | Human | 0.017 mg/L | 0.5 days | Eye | RTECS |
| (<0.1%) | TCLo | | | Lungs, Thorax, or | |
| CAS#: 50-00-0 | | | | Respiration | |
| | | | | Lacrimation | |
| | | | | Other changes | |

Carcinogenicity

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

Mixture

No data available.

Ingredient Carcinogenicity Data

Test data reported below.

| Chemical name | CAS No | ACGIH | IARC | NTP | OSHA |
|-----------------|-----------|-------|---------|-------|------|
| Formaldehyde | 50-00-0 | A1 | Group 1 | Known | X |
| Methanol | 67-56-1 | - | - | - | - |
| Sodium fluoride | 7681-49-4 | - | Group 3 | - | Х |

Legend

| ACGIH (American Conference of Governmental Industrial Hygienists) | Does not apply |
|---|---------------------------------------|
| IARC (International Agency for Research on Cancer) | Group 3 - Not classifiable as a human |
| | carcinogen |
| NTP (National Toxicology Program) | Does not apply |
| OSHA | X - Present |

Oral Exposure Route

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|--|------------------|---------------|---------------|-------------------------------|--|
| Sodium fluoride (<0.01%) CAS#: 7681-49-4 | Mouse TD∟₀ | 14 mg/kg | 43 weeks | Skin and Appendages Tumors | RTECS |

Inhalation (Vapor) Exposure Route

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|--|------------------|---------------|---------------|----------------------------|--|
| Formaldehyde (<0.1%) CAS#: 50-00-0 | Rat | 15 mg/L | 78 weeks | Olfaction Tumors | RTECS |

Germ cell mutagenicity

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

Mixture invitro Data

No data available.

Substance invitro Data

Test data reported below.

| Ī | Chemical name | Test | Cell Strain | Reported dose | Exposure time | Results | Key literature references and |
|---|---------------|------|-------------|---------------|---------------|---------|-------------------------------|
| | | | | | | | sources for data |

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| ſ | Methanol | DNA inhibition | Human lymphocyte | 300 mmol/L | None reported | Positive test result for | RTECS |
|---|-----------------|----------------|------------------|------------|---------------|--------------------------|-------|
| | (<0.1%) | | | | | mutagenicity | |
| L | CAS#: 67-56-1 | | | | | | |
| | Sodium fluoride | Cytogenetic | Human fibroblast | 20 mg/L | None reported | Positive test result for | RTECS |
| | (<0.01%) | analysis | | | | mutagenicity | |
| | CAS#: 7681-49-4 | | | | | | |

Mixture invivo Data

No data available.

Substance invivo Data

Test data reported below.

Oral Exposure Route

| Chemical name | Test | Species | Reported dose | Exposure time | Results | Key literature references and sources for data |
|--|----------------------|---------|---------------|------------------|---------------------------------------|--|
| Methanol (<0.1%) CAS#: 67-56-1 | DNA damage | Rat | 0.405 mg/kg | None reported | Positive test result for mutagenicity | RTECS |
| Sodium fluoride (<0.01%) CAS#: 7681-49-4 | Cytogenetic analysis | Mouse | 1 mg/L | 3 weeks | Positive test result for mutagenicity | RTECS |

Inhalation (Vapor) Exposure Route

| Chemical name | Test | Species | Reported dose | Exposure time | Results | Key literature references and sources for data |
|--|-------------------|---------|---------------|------------------|---------------------------------------|--|
| Formaldehyde (<0.1%) CAS#: 50-00-0 | Micronucleus test | Human | .000985 mg/L | 8.5 years | Positive test result for mutagenicity | RTECS |

Reproductive toxicity

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

Mixture

No data available.

Ingredient Reproductive 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 |
|------------------|------------------|---------------|---------------|---|--|
| Methanol (<0.1%) | Rat TD⊾₀ | 4118 mg/kg | 10 days | Effects on Embryo or Fetus | RTECS |
| CAS#: 67-56-1 | I DLo | | | Specific Developmental Abnormalities | |
| | | | | Ear | |
| | | | | Eye Fetotoxicity (except death e.g. | |
| | | | | stunted fetus) | |
| | | | | Urogenital System | |
| Sodium fluoride | Rat | 240 mg/kg | None reported | Specific Developmental | RTECS |
| (<0.01%) | TD_Lo | | | Abnormalities | |
| CAS#: 7681-49-4 | | | | Musculoskeletal system | |

Inhalation (Dust/Mist) Exposure Route

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| | Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---|---------------|---------------|---------------|---------------|---------------------------------|--|
| Ī | Methanol | Rat | 0.0026 mg/L | 22 days | Effects on Embryo or Fetus | RTECS |
| | (<0.1%) | TCLo | | | Fetotoxicity (except death e.g. | |
| | CAS#: 67-56-1 | | | | stunted fetus) | |

Inhalation (Vapor) Exposure Route

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---------------|---------------|---------------|---------------|---------------------------------|--|
| Formaldehyde | Rat | 40 mg/L | 14 days | Effects on Embryo or Fetus | RTECS |
| (<0.1%) | TCLo | | _ | Fetotoxicity (except death e.g. | |
| CAS#: 50-00-0 | | | | stunted fetus) | |

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 1E-05% 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.

Substance

Aquatic Acute Toxicity

Test data reported below.

Fish

| Chemical name | Exposure time | Species | Endpoint type | Reported dose | Key literature references and sources for data |
|--|---------------|------------------|---------------|---------------|--|
| Formaldehyde (<0.1%) CAS#: 50-00-0 | 96 hours | Morone saxatilis | LC50 | 6.7 mg/L | PEEN |
| Sodium fluoride (<0.01%) CAS#: 7681-49-4 | 96 hours | Channa punctatus | LC50 | 51 mg/L | GESTIS |

Crustacea

| Chemical name | Exposure time | Species | Endpoint type | Reported dose | Key literature references and sources for data |
|--|---------------|---------------|---------------|---------------|--|
| Formaldehyde (<0.1%) CAS#: 50-00-0 | 48 Hours | Daphnia pulex | EC50 | 5.8 mg/L | PEEN |
| Sodium fluoride (<0.01%) CAS#: 7681-49-4 | 48 Hours | Daphnia magna | EC50 | 98 mg/L | GESTIS |

Aquatic Chronic Toxicity

No data available.

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Persistence and degradability

Mixture

No data available.

Mixture

No data available.

Partition coefficient Not applicable

Mobility

Soil Organic Carbon-Water Partition Coefficient Not applicable

Other adverse effects
No information available

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 U122 U154

| Chemical name | RCRA | RCRA - Basis for Listing | RCRA - D Series Wastes | RCRA - U Series Wastes |
|---------------|------|---------------------------------|------------------------|-------------------------------|
| Formaldehyde | U122 | Included in waste | - | U122 |
| 50-00-0 | | streams: K009, K010, | | |
| | | K038, K040, K156, K157 | | |
| Methanol | - | Included in waste stream: | - | U154 |
| 67-56-1 | | F039 | | |

Special instructions for disposal

If permitted by regulation. Open cold water tap completely, slowly pour the material to the drain. Allow cold water to run for 5 minutes to completely flush the system. Dispose of material in an E.P.A. approved hazardous waste facility.

14. TRANSPORT INFORMATION

DOT Not regulated

TDG Not regulated

<u>IATA</u> Not regulated

IMDG Not regulated

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.

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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 Complies **ENCS IECSC** Complies Complies KECL **PICCS** Complies **TCSI** Complies Complies **AICS** 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

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any 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 % |
|-------------------------------|-------------------------------|
| Formaldehyde (CAS #: 50-00-0) | 0.1 |
| Methanol (CAS #: 67-56-1) | 1.0 |

SARA 311/312 Hazard Categories

Acute health hazard No
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 |
|------------------------------|--------------------------------|------------------------|------------------------------|-------------------------------|
| Formaldehyde 50-00-0 | 100 lb | - | - | Х |
| Sodium fluoride 7681-49-4 | 1000 lb | - | - | 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

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| Chemical name | Hazardous Substances RQs | CERCLA/SARA RQ | Reportable Quantity (RQ) |
|-----------------|--------------------------|----------------|--------------------------|
| Formaldehyde | 100 lb | 100 lb | RQ 100 lb final RQ |
| 50-00-0 | | | RQ 45.4 kg final RQ |
| Methanol | 5000 lb | - | RQ 5000 lb final RQ |
| 67-56-1 | | | RQ 2270 kg final RQ |
| Sodium fluoride | 1000 lb | - | RQ 1000 lb final RQ |
| 7681-49-4 | | | RQ 454 kg final RQ |

U.S. - Department of Homeland Security - Chemical Facility Anti-Terrorism Standards (CFATS) - Security Issues

| Chemical name | U.S Department of Homeland Security - Chemical Facility Anti-Terrorism Standards (CFATS) - Security Issues | |
|--|--|--|
| Formaldehyde (<0.1%) CAS#: 50-00-0 | Release - Toxic (solution) | |

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

| Chemical name | California Proposition 65 | |
|-------------------------------|---------------------------|--|
| Formaldehyde (CAS #: 50-00-0) | Carcinogen | |
| Methanol (CAS #: 67-56-1) | Developmental | |

WARNING: This product can expose you to chemicals including Formaldehyde, Methanol, which are known to the State of California to cause cancer or birth defects or reproductive harm. For more information, go to http://www.P65Warnings.ca.gov

IMERC: Not applicable

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 |
|-----------------|------------|---------------|--------------|
| Formaldehyde | X | X | X |
| 50-00-0 | | | |
| Methanol | X | X | X |
| 67-56-1 | | | |
| Sodium fluoride | X | X | X |
| 7681-49-4 | | | |

U.S. EPA Label Information

| Chemical name | FIFRA | FDA |
|-----------------|----------|-----|
| Methanol | 180.0910 | - |
| Sodium fluoride | 180.0145 | - |

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

Special Comments

None

Additional information

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Global Automotive Declarable Substance List (GADSL)

| Chemical name | Global Automotive Declarable Substance List Classifications | Global Automotive Declarable Substance List Thersholds |
|---------------|--|---|
| Formaldehyde | Prohibited Substance (FI) | 0.1 % |
| 50-00-0 | Prohibited Substance (LR) | |
| | Declarable Substance (LR) | |
| | Declarable Substance (FI) | |
| Methanol | Declarable Substance (FI) | 0.6 % |
| 67-56-1 | Declarable Substance (LR) | |
| | Prohibited Substance (FI) | |
| | Prohibited Substance (LR) | |

NFPA and HMIS Classifications

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

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

ACGIH (American Conference of Governmental Industrial Hygienists)
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 (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 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)

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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 04-May-2021

Revision Date 26-Jan-2024

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.

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End of Safety Data Sheet

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