8625 Unsworth Avenue, Sacramento, CA 95828

Phone (916) 389-2517 Fax (916) 389-2516



February 14, 2024

AFFIDAVIT OF COMPLIANCE

Hydrofluosilicic Acid

This affidavit certifies and warrants the hydrofluosilicic acid to be delivered to the Bay Area Chemical Consortium Agencies by Thatcher Company of California, Inc. fully complies with A.W.W.A. Specifications and ANSI/NSF Standard 60.

Michael T. Mitchell President

ATTACHMENT 1

General Manager: Phone Number E-mail Address: Phillip Belden (702) 219-2372 philip.belden@tchem.com

Vice President of Marketing and Customer Service: Phone Number:

E-mail Address:

Jayson Stenquist (801) 972-4587 ext. 1444 MT jason.stenquist@tchem.com



THORNTON LABORATORIES TESTING & INSPECTION SERVICES, INC.

1145 E. Cass St, Tampa, FL 33602 Phone: 813-223-9702 Fax: 813-223-9332 WWW.THORNTONLAB.COM

> 27-Apr-2021 Page 1 of 1

Report For: DuBois Chemicals, Inc. 1717 E. Fargo Ave. Nampa, ID 83687 Attn: Laura Lanthier

Sample Identification: Fluorosilicic Acid (FSA) 3/16/21 Date Received: 23-Mar-2021 Laboratory Number: 437598, revised for Al, Fe recheck

CERTIFICATE OF ANALYSIS

| Method | Parameter | Result | Units |
|--------------|---|--------|-------|
| AFPC IX.3.C | Phosphate, Total (P205) | 0.22 | 00 |
| AWWA B703 | Fluorosilicic Acid (H ₂ SiF ₆) | 24.09 | 00 |
| | Free Acid other than H_2SiF_6 (HF) | 0.30 | 00 |
| АРНА | Color | 0 | PCU |
| ASTM | Specific Gravity @ 74 oF | 1.2182 | |
| | Pounds per gallon @ 74 oF | 10.16 | |
| AFPC IX.14.B | Fluoride (F) | 18.66 | 00 |
| EPA 6010 | Aluminum (Al), Total | 12 | ppm |
| | Arsenic (As), Total | 1.6 | ppm |
| | Barium (Ba), Total | 0.5 | ppm |
| | Cadmium (Cd), Total | 0.3 | ppm |
| | Copper (Cu), Total | 0.9 | ppm |
| | Chromium (Cr), Total | 1.0 | ppm |
| | Iron (Fe), Total | 7.5 | ppm |
| | Lead (Pb), Total | < 1.0 | ppm |
| | Manganese (Mn), Total | < 0.1 | ppm |
| | Nickel (Ni), Total | 0.6 | ppm |
| | Selenium (Se), Total | < 0.3 | ppm |
| | Titanium (Ti), Total | 4.1 | ppm |
| | Vanadium (V), Total | 0.6 | ppm |
| | Zinc (Zn), Total | 2.4 | ppm |
| EPA 7471 | | | |
| | Mercury (Hg), Total | < 0.01 | ppm |
| EPA 6010 * | | | |
| | Antimony (Sb), Total | 0.52 | ppm |
| | Beryllium (Be), Total | < 0.10 | ppm |
| | Silver (Ag), Total | < 0.13 | ppm |
| | Thallium (Tl), Total | 0.47 | ppm |

* Analysis performed by Precision Petroleum Labs.

THORNTON LABORATORIES Steve Fickett, III



FLUOROSILIC ACID (FSA) HYDROFLUOROSILIC ACID (HFS) NSF⁽¹⁾ & AWWA⁽²⁾ CERTIFIED

CHEMICAL PROPERTIES

SPECIFICATION (3)

TYPICAL₍₃₎

| ASSAY | | |
|------------------------|----------|--|
| FLUORINE (F) | | |
| | | |
| | 1.0% Max | |
| ARSENIC (As) | | |
| | | |
| PHOSPHATE (P_2O_5) | | |

PHYSICAL PROPERTIES

| Chemical Formula (H ₂ SiF ₆) | |
|---|-----|
| Specific Gravity @ 60°F & 24% FSA | |
| Density (lbs/gal) @ 24% FSA | |
| Boiling Point °F | |
| Freezing Point °F | 4.0 |
| Color (APHA) | |
| Visible Suspended Matter | |

SHIPPING POINT

Rock Springs, WY



⁽¹⁾Meets NSF/ANSI Standard 60 ⁽²⁾Meets AWWA Standard B703-19 ⁽³⁾ppm unless otherwise specified

J.R. SIMPLOT COMPANY

PDS FSA RSF

IISCLAIMER: All ranges typical. This Product Data Sheet and information it contains is considered to be accurate at the date of printing. No warranty or representation, expressed or mplied, is made as to the accuracy or completeness of the data and information contained herein. It is the User's obligation to evaluate and use products safely, to review the accompanyog SDS, and to comply with all applicable laws and regulations. The User must make a thorough evaluation and determine whether the product is appropriate for the intended use. Nothing erein shall be construed as a permission, recommendation or authorization given or implied to practice any patented invention without a valid license. There are no express or implied varranties of merchantability or fitness for a particular purpose. See Simplot's Terms and Conditions of Sale for more detailed information concerning the sale of this product.



The Public Health and Safety Organization

NSF Product and Service Listings

These NSF Official Listings are current as of **Wednesday**, **February 14**, **2024** at 12:15 a.m. Eastern Time. Please <u>contact NSF</u> to confirm the status of any Listing, report errors, or make suggestions.

Alert: NSF is concerned about fraudulent downloading and manipulation of website text. Always confirm this information by clicking on the below link for the most accurate information: <u>http://info.nsf.org/Certified/PwsChemicals/Listings.asp?</u> <u>CompanyName=DuBois+Chemicals&ChemicalName=Hydrofluosilicic+Acid&</u>

NSF/ANSI/CAN 60 Drinking Water Treatment Chemicals - Health Effects

| DuBois Chemicals, Inc. formerly known as BHS Marketing LLC 3630 East Kemper Road Sharonville, OH 45241 United States 800-438-2647 <u>Visit this company's website (http://www.duboischemicals.com)</u> | | |
|--|---|-------------------------|
| Facility : Fremont, CA | | |
| Fluorosilicic Acid <i>Trade Designation</i> Fluorosilicic Acid | <i>Product Function</i> Fluoridation | <i>Max Use</i> 5mg/L |
| Facility : Vernon, CA | | |
| Fluorosilicic Acid <i>Trade Designation</i> Fluorosilicic Acid | <i>Product Function</i> Fluoridation | <i>Max Use</i> 5mg/L |
| Facility : Mulberry, FL | | |
| Fluorosilicic Acid Trade Designation FSA | <i>Product Function</i> Fluoridation | <i>Max Use</i> 5mg/L |

Facility : Granite City, IL

| Fluorosilicic Acid | | |
|----------------------|----------------------------|---------|
| Trade Designation | Product Function | Max Use |
| Fluorosilicic Acid 5 | Coagulation & Flocculation | 5mg/L |

Facility : Distribution Center - Seattle, WA

| Fluosilicic Acid | | |
|-----------------------|-------------------------|---------|
| Trade Designation | Product Function | Max Use |
| Fluosilicic Acid | Fluoridation | 6mg/L |
| Hydrofluosilicic Acid | Fluoridation | 6mg/L |
| | | |



Safety Data Sheet according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Date of issue: 03/25/2021 Version: 1.0

| Dat | |
|--|--|
| SECTION 1: Identification | |
| 1.1. Identification | |
| Product form | : Substance |
| Substance name | : Fluorosilicic Acid (FSA) |
| Chemical name | : Hydro Fluorosilicic Acid (HSA) |
| Product code | : M17200 |
| 1.2. Recommended use and restric | tions on use |
| | |
| 1.3. Supplier | |
| JR Simplot Company | |
| P.O. Box 70013 | |
| Boise, ID 83707 | |
| T 1-208-336-2110 | |
| 1.4. Emergency telephone number | |
| | . CUENTREC 4 900 424 0200 |
| Emergency number | : CHEMTREC 1-800-424-9300 |
| SECTION 2: Hazard(s) identificat | tion |
| 2.1. Classification of the substance | or mixture |
| GHS-US classification | |
| Acute toxicity (oral), Category 4 H302 | 0 May be corrosive to metals. 2 Harmful if swallowed. 4 Causes severe skin burns and eye damage. |
| Full text of H statements : see section 16 | |
| | |
| 2.2. GHS Label elements, including | precautionary statements |
| GHS US labelling | |
| Hazard pictograms (GHS US) | |
| , | |
| | |
| | |
| Signal word (GHS US) | : Danger |
| Hazard statements (GHS US) | : H290 - May be corrosive to metals. |
| | H302 - Harmful if swallowed. |
| | H314 - Causes severe skin burns and eye damage. |
| Precautionary statements (GHS US) | : P234 - Keep only in original container. |
| | P260 - Do not breathe dust/fume/gas/mist/vapours/spray. |
| | P264 - Wash hands, forearms and face thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. |
| | P280 - Wear protective gloves/protective clothing/eye protection/face protection. |
| | P301+P312 - If swallowed: Call a poison center/doctor/ if you feel unwell |
| | P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting |
| | P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower |
| | P304+P340 - If inhaled: Remove person to fresh air and keep 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/doctor/ |
| | P321 - Specific treatment (see supplemental first aid instruction on this label) P330 - Rinse mouth. |
| | P363 - Wash contaminated clothing before reuse. |
| | P390 - Absorb spillage to prevent material damage. |
| | P405 - Store locked up. |
| | P406 - Store in corrosive resistant container with a resistant inner liner. |
| | P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation |
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| | • |

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| 2.3. Other hazards which do not res | ult in classification | | |
|--|--|--|-----------------------------|
| No additional information available | | | |
| 2.4. Unknown acute toxicity (GHS L | S) | | |
| Not applicable | | | |
| SECTION 3: Composition/inform | ation on ingredients | | |
| 3.1. Substances | | | |
| Name | : Fluorosilicic Acid (FSA) | | |
| Name | Product id | entifier % | GHS-US classification |
| Water | (CAS-No.) 773 | | Not classified |
| hexafluorosilicic acid | (CAS-No.) 16 | 961-83-4 23 – 25 | Skin Corr. 1B, H314 |
| Full text of hazard classes and H-statement | s : see section 16 | | |
| 3.2. Mixtures | | | |
| Not applicable | | | |
| SECTION 4: First-aid measures | | | |
| 4.1. Description of first aid measure | | | |
| First-aid measures general | If you feel unwell, seek medical advice person. If you feel unwell, seek medica physician immediately. | | |
| First-aid measures after inhalation | : Remove person to fresh air and keep of breathe fresh air. Allow the victim to re | | g. Allow affected person to |
| First-aid measures after skin contact | Remove affected clothing and wash al by warm water rinse. Rinse skin with w clothing. Call a physician immediately. | | |
| First-aid measures after eye contact | persists. Rinse cautiously with water for | Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately. | |
| First-aid measures after ingestion | | Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a POISON CENTER/doctor if you feel unwell. Do not induce vomiting. Call a physician immediately. | |
| 4.2. Most important symptoms and | effects (acute and delayed) | | |
| Potential adverse human health effects and symptoms | : Based on available data, the classifica | tion criteria are not met | . Harmful if swallowed. |
| Symptoms/effects after skin contact | : Burns. | | |
| Symptoms/effects after eye contact | : Serious damage to eyes. | | |
| Symptoms/effects after ingestion | : Swallowing a small quantity of this ma | erial will result in seriou | us health hazard. Burns. |
| 4.3. Immediate medical attention ar | d special treatment, if necessary | | |
| Treat symptomatically. | | | |
| SECTION 5: Fire-fighting measu | es | | |
| 5.1. Suitable (and unsuitable) extin | uishing media | | |
| Suitable extinguishing media | : Foam. Dry powder. Carbon dioxide. W | ater spray. Sand. | |
| Unsuitable extinguishing media | : Do not use a heavy water stream. | | |
| 5.2. Specific hazards arising from t | e chemical | | |
| Hazardous decomposition products in case fire | of : Toxic fumes may be released. | | |
| 5.3. Special protective equipment a | nd precautions for fire-fighters | | |
| Firefighting instructions | : Use water spray or fog for cooling expo chemical fire. Prevent fire fighting wate | | |
| Protection during firefighting | Do not attempt to take action without s apparatus. Complete protective clothin equipment, including respiratory protection | g. Do not enter fire area | 5 |

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| | i register / vol. //, rto. 50 / Monday, M | | |
|----------------------------------|---|---|--|
| SECTION 6: | Accidental release measu | ires | |
| 6.1. Perso | nal precautions, protective equi | pment and emergency procedures | |
| 6.1.1. For no | on-emergency personnel | | |
| Emergency proc | cedures : | Ventilate spillage area. Evacuate unnecessary personnel. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. | |
| 6.1.2. For er | mergency responders | | |
| Protective equip | ment : | Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". Equip cleanup crew with proper protection. | |
| Emergency proc | cedures : | Ventilate area. | |
| 6.2. Enviro | onmental precautions | | |
| Avoid release to | the environment. Prevent entry to | sewers and public waters. Notify authorities if liquid enters sewers or public waters. | |
| 6.3. Metho | ods and material for containment | t and cleaning up | |
| Methods for clea | aning up : | Take up liquid spill into absorbent material. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Absorb spillage to prevent material damage. | |
| Other informatio | n : | Dispose of materials or solid residues at an authorized site. | |
| 6.4. Reference to other sections | | | |
| For further inform | mation refer to section 13. See Hea | ading 8. Exposure controls and personal protection. | |
| SECTION 7: | Handling and storage | | |
| 7.1. Preca | utions for safe handling | | |
| Additional hazar | ds when processed : | May be corrosive to metals. | |
| Precautions for s | safe handling : | Ensure good ventilation of the work station. Wear personal protective equipment. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. | |
| Hygiene measur | res : | Always wash hands after handling the product. Do not eat, drink or smoke when using this product. Wash hands, forearms and face thoroughly after handling. Wash contaminated clothing before reuse. | |
| 7.2. Condi | itions for safe storage, including | any incompatibilities | |
| Storage conditio | ins : | Store in a well-ventilated place. Keep cool. Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use. Store in corrosive resistant container with a resistant inner liner. Keep only in original container. Store locked up. | |
| Incompatible pro | oducts : | Strong bases. Strong acids. | |
| | | | |

- Incompatible materials : Sources of ignition. Direct sunlight. Metals.
 - : Store in corrosive resistant container with a resistant inner liner.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Packaging materials

| Fluorosilicic Acid (FSA) | | |
|--|-----------------------|--|
| No additional information available | | |
| Water (7732-18-5) | | |
| No additional information available | | |
| hexafluorosilicic acid (16961-83-4) | | |
| USA - ACGIH - Occupational Exposure Limits | | |
| ACGIH TWA (mg/m³) | 2.5 mg/m ³ | |

| 8.2. | Appropriate engineering controls | | |
|-----------|----------------------------------|---|--|
| Appropria | te engineering controls | : | Ensure good ventilation of the work station. |
| Environm | ental exposure controls | : | Avoid release to the environment. |

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8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Materials for protective clothing:

Use chemically protective clothing

Hand protection:

Acid proof gloves should be worn to prevent contact

Eye protection:

Splash proof goggles and full-face shield should be worn at all times. Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Wear appropriate mask

Other information:

Do not eat, drink or smoke during use.

| SECTION 9: Physical and chemical properties | | |
|---|--|--|
| 9.1. Information on basic physical and ch | nemical properties | |
| Physical state | : Liquid | |
| Appearance | : Clear, colorless to pale straw liquid. | |
| Colour | : Colourless | |
| Odour | : characteristic | |
| Odour threshold | : No data available | |
| рН | : 1 | |
| Melting point | : Not applicable | |
| Freezing point | : No data available | |
| Boiling point | : 105 °C | |
| Flash point | : No data available | |
| Relative evaporation rate (butylacetate=1) | : No data available | |
| Flammability (solid, gas) | : Non flammable. | |
| Vapour pressure | : No data available | |
| Relative vapour density at 20 °C | : No data available | |
| Relative density | : No data available | |
| Solubility | : Soluble. | |
| Partition coefficient n-octanol/water (Log Pow) | : No data available | |
| Auto-ignition temperature | : No data available | |
| Decomposition temperature | : No data available | |
| Viscosity, kinematic | : No data available | |
| Viscosity, dynamic | : No data available | |
| Explosive limits | : No data available | |
| Explosive properties | : No data available | |
| Oxidising properties | : No data available | |
| 9.2. Other information | | |
| No additional information available | | |
| SECTION 10: Stability and reactivity | | |

SECTION TO. Stability and read

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

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10.2. Chemical stability

Stable. Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Extremely high temperatures. Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Alkalis. Chlorites. Combustible solids and organic peroxides. Strong acids. Strong bases. metals. May be corrosive to metals.

10.6. Hazardous decomposition products

Corrosive fumes of fluorides. fume. Carbon monoxide. Carbon dioxide.

| 1.1. Information on toxicological effects cute toxicity (rail) : Harmful if swallowed. cute toxicity (inhalation) : Not classified cute toxicity (inhalation) : Not classified Floorestice Acid (FSA) 430 mg/kg LD50 oral rat 430 mg/kg bodyweight kin corrosion/irritation : Causes severe skin burns. pH: 1 review eye damage/irritation : Causes severe skin burns. pH: 1 tespiratory or skin sensitisation : Not classified tespiratory or skin sensitisation : Not classified tespiratory or skin sensitisation : Not classified term cell mutagenicity : Not classified term cell mutagenicity : Not classified terproductive toxicity : Not classified terproductive toxicity : Not classified torT-single exposure : Not classified torty-repeated exposure : Not classified spiration hazard : Not classified tiscosity, kinematic : Not classified tiscosity | SECTION 11: Toxicological informa | tion |
|---|---|---|
| cute toxicity (oral): Harmful if swallowed.cute toxicity (dermal): Not classifiedFluerosilicic Acid (FSA)LD50 oral rat430 mg/kgATE US (oral)430 mg/kg bodyweightkin corrosion/irritation: Causes severe skin burns. pH: 1erious eye damage/irritation: Assumed to cause serious eye damage pH: 1terious eye damage/irritation: Not classifiedeterious eye damage/irritation: Not classifiedterious eye damage/irritation: Not classifiedterious eye damage/irritation: Not classifiedterious eye damage/irritation: Not classifiedterm cell mutagenicity: Not classifiedterm cell scoticity: Not classifiedterm cell exposure: Not classifiedtort-repeated exposure: Not classifiedspiration hazard: Not classifiedspiration hazard: Not classifiedspiration hazard: Not classifiedspiration hazerd: Sased on available da | | |
| cute toxicity (demail): Not classifiedcute toxicity (inhalation): Not classifiedFluerosilicic Acid (FSA)430 mg/kgLD50 oral rat430 mg/kg bodyweightATE US (oral)430 mg/kg bodyweightkin corrosion/irritation: Causes severe skin burns. pH: 1ierious eye damage/irritation: Assumed to cause serious eye damage pH: 1terespiratory or skin sensitisation: Not classifiedterm cell mutagenicity: Not classifiedterespiratory or skin sensitisation: Not classifiedterm cell mutagenicity: Not classifiedterm cell nutagenicity: Not classified <td>Acute toxicity (oral)</td> <td></td> | Acute toxicity (oral) | |
| cute toxicity (inhalation): Not classifiedFluorosilicic Acid (FSA)430 mg/kgLD50 oral rat430 mg/kg bodyweightATE US (oral)430 mg/kg bodyweightkin corrosion/irritation: Causes severe skin burns. pH: 1erious eye damage/irritation: Not classifiedierious eyes damage: Not classifiedierious eyes eyes: Not classifiedispiration hazard: Not classifiediscosity, kinematic: Not classifiediscosity, kinematic: Based on availableotential adverse human health effects and ymptoms/effects after eye contact: Burns.ymptoms/effects after eye contact: Serious damage to eyes. | | |
| LD50 oral rat 430 mg/kg ATE US (oral) 430 mg/kg bodyweight kin corrosion/irritation : Causes severe skin burns. pH: 1 ierious eye damage/irritation : Assumed to cause serious eye damage pH: 1 tespiratory or skin sensitisation : Not classified ierm cell mutagenicity : Not classified tarcinogenicity : Not classified hexafluorosilicic acid (16961-83-4) IARC group IARC group 3 - Not classified reproductive toxicity : Not classified trOT-single exposure : Not classified iscosity, kinematic : Based on available vonptoms : Based on available data, the classification criteria are not met. Harmful if swallowed. ymptoms : Serious damage to eyes. | Acute toxicity (inhalation) | : Not classified |
| ATE US (oral) 430 mg/kg bodyweight kin corrosion/irritation : Causes severe skin burns. pH: 1 ierious eye damage/irritation : Assumed to cause serious eye damage pH: 1 ierious eye damage/irritation : Assumed to cause serious eye damage pH: 1 ierious eye damage/irritation : Not classified ierious eye damage/irritation : Not classified ierio cell mutagenicity : Not classified iarcinogenicity : Not classified hexafluorosilicic acid (16961-83-4) IARC group IARC group 3 - Not classified teproductive toxicity : Not classified :TOT-single exposure : Not classified :TOT-repeated exposure : Not classified :soriation hazard : Not classified :socity, kinematic : Based on available data, the classification criteria are not met. Harmful if swallowed. ymptoms : Burns. ymptoms/effects after eye contact : Serious damage to eyes. | Fluorosilicic Acid (FSA) | |
| kin corrosion/irritation : Causes severe skin burns. pH: 1 ierious eye damage/irritation : Assumed to cause serious eye damage pH: 1 tespiratory or skin sensitisation : Not classified ierious eye damage/irritation : Not classified iscosity : Not classified tot classified : Not classified iscosity, kinematic : Based on available data, the classification criteria are not met. Harmful if swallowed. wrptoms : Burns. wrptoms/effects after skin contact : Burns. wrptoms/effects after eye contact : Serious damage to eyes. | LD50 oral rat | 430 mg/kg |
| pH: 1 kerious eye damage/irritation itespiratory or skin sensitisation itespiratory or skin sensitisation item cell mutagenicity item c | ATE US (oral) | 430 mg/kg bodyweight |
| Assumed to cause serious eye damage pH: 1 tespiratory or skin sensitisation : Not classified term cell mutagenicity : Not classified tarcinogenicity : Not classified term cell mutagenicity : Not classified tarcinogenicity : Not classified tarcorepeated exposure : Not classified trOT-repeated exposure : Not classified tiscosity, kinematic : Not classified viscosity, kinematic : Not classified tiscosity, kinematic : Not classified totential adverse human health effects and ymptoms/effects after skin contact : Based on available data, the classification criteria are not met. Harmful if swallowed. ymptoms/effects after skin contact : Burns. ymptoms/effects after eye contact : Serious | Skin corrosion/irritation | : Causes severe skin burns. |
| pH: 1 tespiratory or skin sensitisation : Not classified Serm cell mutagenicity : Not classified tarcinogenicity : Not classified hexafluorosilicic acid (16961-83-4) IARC group IARC group 3 - Not classifiable teproductive toxicity : Not classified toTT-single exposure : Not classified tTOT-repeated exposure : Not classified iscosity, kinematic : Not classified tottal adverse human health effects and ymptoms : Based on available data, the classification criteria are not met. Harmful if swallowed. ymptoms/effects after skin contact : Burns. ymptoms/effects after eye contact : Serious damage to eyes. | | pH: 1 |
| Attempiratory or skin sensitisation : Not classified Serm cell mutagenicity : Not classified Accinogenicity : Not classified hexatluorosilicic acid (16961-83-4) IARC group IARC group 3 - Not classifiable teproductive toxicity : Not classified TOT-single exposure : Not classified TOT-repeated exposure : Not classified Spiration hazard : Not classified iscosity, kinematic : Not classified totential adverse human health effects and ymptoms : Based on available data, the classification criteria are not met. Harmful if swallowed. tymptoms/effects after eye contact : Burns. tymptoms/effects after eye contact : Serious damage to eyes. | Serious eye damage/irritation | Assumed to cause serious eye damage |
| wern cell mutagenicity : Not classified hexafluorosilicic acid (16961-83-4) | | pH: 1 |
| tarcinogenicity : Not classified hexafluorosilicic acid (16961-83-4) 3 - Not classifiable IARC group 3 - Not classifiable teproductive toxicity : Not classified TOT-single exposure : Not classified TOT-repeated exposure : Not classified spiration hazard : Not classified 'iscosity, kinematic : Not classified 'otential adverse human health effects and ymptoms : Based on available data, the classification criteria are not met. Harmful if swallowed. ymptoms/effects after skin contact : Burns. ymptoms/effects after eye contact : Serious damage to eyes. | Respiratory or skin sensitisation | : Not classified |
| hexafluorosilicic acid (16961-83-4) IARC group 3 - Not classifiable teproductive toxicity : Not classified tTOT-single exposure : Not classified tTOT-repeated exposure : Not classified spiration hazard : Not classified riscosity, kinematic : Not classified votential adverse human health effects and ymptoms : Based on available data, the classification criteria are not met. Harmful if swallowed. symptoms/effects after skin contact : Burns. symptoms/effects after eye contact : Serious damage to eyes. | Germ cell mutagenicity | : Not classified |
| IARC group 3 - Not classifiable teproductive toxicity : Not classified TOT-single exposure : Not classified TOT-repeated exposure : Not classified Spiration hazard : Not classified 'iscosity, kinematic : Not classified 'otential adverse human health effects and ymptoms : Based on available data, the classification criteria are not met. Harmful if swallowed. ymptoms/effects after skin contact : Burns. symptoms/effects after eye contact : Serious damage to eyes. | Carcinogenicity | : Not classified |
| IARC group 3 - Not classifiable teproductive toxicity : Not classified TOT-single exposure : Not classified TOT-repeated exposure : Not classified Spiration hazard : Not classified 'iscosity, kinematic : Not classified 'otential adverse human health effects and ymptoms : Based on available data, the classification criteria are not met. Harmful if swallowed. ymptoms/effects after skin contact : Burns. symptoms/effects after eye contact : Serious damage to eyes. | hexafluorosilicic acid (16961-83-4) | |
| TOT-single exposure: Not classifiedTOT-repeated exposure: Not classifiedspiration hazard: Not classifiedspiration hazard: Not classified'iscosity, kinematic: Not data available'otential adverse human health effects and ymptoms: Based on available data, the classification criteria are not met. Harmful if swallowed.'ymptoms/effects after skin contact: Burns.'ymptoms/effects after eye contact: Serious damage to eyes. | IARC group | 3 - Not classifiable |
| ATOT-repeated exposure : Not classified Aspiration hazard : Not classified Aspiration hazard : Not classified Viscosity, kinematic : No data available Potential adverse human health effects and ymptoms : Based on available data, the classification criteria are not met. Harmful if swallowed. Symptoms/effects after skin contact : Burns. Symptoms/effects after eye contact : Serious damage to eyes. | Reproductive toxicity | Not classified |
| ATOT-repeated exposure : Not classified Aspiration hazard : Not classified Aspiration hazard : Not classified Viscosity, kinematic : No data available Potential adverse human health effects and ymptoms : Based on available data, the classification criteria are not met. Harmful if swallowed. Symptoms/effects after skin contact : Burns. Symptoms/effects after eye contact : Serious damage to eyes. | | |
| Aspiration hazard : Not classified Viscosity, kinematic : No data available Potential adverse human health effects and ymptoms : Based on available data, the classification criteria are not met. Harmful if swallowed. Symptoms/effects after skin contact : Burns. Symptoms/effects after eye contact : Serious damage to eyes. | STOT-single exposure | : Not classified |
| Aspiration hazard : Not classified Viscosity, kinematic : No data available Potential adverse human health effects and ymptoms : Based on available data, the classification criteria are not met. Harmful if swallowed. Symptoms/effects after skin contact : Burns. Symptoms/effects after eye contact : Serious damage to eyes. | STOT-repeated exposure | · Not classified |
| iscosity, kinematic : No data available cotential adverse human health effects and ymptoms : Based on available data, the classification criteria are not met. Harmful if swallowed. cymptoms/effects after skin contact : Burns. cymptoms/effects after eye contact : Serious damage to eyes. | | |
| votential adverse human health effects and ymptoms : Based on available data, the classification criteria are not met. Harmful if swallowed. symptoms/effects after skin contact : Burns. symptoms/effects after eye contact : Serious damage to eyes. | Aspiration hazard | : Not classified |
| ymptoms ymptoms/effects after skin contact : Burns. ymptoms/effects after eye contact : Serious damage to eyes. | Viscosity, kinematic | : No data available |
| symptoms/effects after eye contact : Serious damage to eyes. | Potential adverse human health effects and symptoms | : Based on available data, the classification criteria are not met. Harmful if swallowed. |
| | Symptoms/effects after skin contact | : Burns. |
| ymptoms/effects after ingestion : Swallowing a small quantity of this material will result in serious health hazard. Burns. | Symptoms/effects after eye contact | : Serious damage to eyes. |
| | Symptoms/effects after ingestion | : Swallowing a small quantity of this material will result in serious health hazard. Burns. |

| SECTION 12: Ecological information | |
|-------------------------------------|---|
| 12.1. Toxicity | |
| Ecology - general | : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment. Before neutralisation, the product may represent a danger to aquatic organisms. |
| hexafluorosilicic acid (16961-83-4) | |
| LC50 fish 1 | > 10 mg/l (96 h; Brachydanio rerio) |
| Threshold limit algae 1 | 10 mg/l (96 h; Scenedesmus quadricauda; Cell numbers) |

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| Fluorosilicic Acid (FSA) | |
|--|---|
| Persistence and degradability | Not established. |
| Water (7732-18-5) | |
| Persistence and degradability | Not established. |
| hexafluorosilicic acid (16961-83-4) | |
| Persistence and degradability | Biodegradability: not applicable. Reacts with water: release of toxic/harmful substances. No (test)data on mobility of the components available. Not established. |
| Biochemical oxygen demand (BOD) | Not applicable |
| Chemical oxygen demand (COD) | Not applicable |
| ThOD | Not applicable |
| BOD (% of ThOD) | Not applicable |
| 2.3. Bioaccumulative potential | |
| Fluorosilicic Acid (FSA) | |
| Bioaccumulative potential | Not established. |
| • | |
| Water (7732-18-5) | |
| Water (7732-18-5) Bioaccumulative potential | Not established. |
| | Not established. |

No additional information available

12.5. Other adverse effects

Other information

: Avoid unintentional release to the environment.

| SECTION 13: Disposal considerations | | |
|--|---|--|
| 13.1. Disposal methods | | |
| Waste treatment methods | : Dispose of contents/container in accordance with licensed collector's sorting instructions. | |
| Product/Packaging disposal recommendations | : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. | |
| Ecology - waste materials | : Avoid unintentional release to the environment. | |

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT Transport document description : UN1778 Fluorosilicic acid, 8, II UN-No.(DOT) : UN1778 Proper Shipping Name (DOT) : Fluorosilicic acid Class (DOT) : 8 - Class 8 - Corrosive material 49 CFR 173.136 Packing group (DOT) : II - Medium Danger Hazard labels (DOT) : 8 - Corrosive

DOT Packaging Non Bulk (49 CFR 173.xxx) DOT Packaging Bulk (49 CFR 173.xxx) : 202

: 242

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| | tightly closed metal receptacles before packing in outer packagings. A7 - Steel packagings must be corrosion-resistant or have protection against corrosion. B2 - MC 300, MC 301, MC 302, MC 303, MC 305, and MC 306 and DOT 406 cargo tanks are not authorized. B15 - Packagings must be protected with non-metallic linings impervious to the lading or have a suitable corrosion allowance. IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized. N3 - Glass inner packagings are permitted in combination or composite packagings only if the hazardous material is free from hydrofluoric acid. N34 - Aluminum construction materials are not authorized for any part of a packaging which is normally in contact with the hazardous material. T8 - 4 178.274(d)(2) Normal Prohibited TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during the formula: (image) Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively. |
|---|--|
| OOT Packaging Exceptions (49 CFR 173.xxx) | TP12 - This material is considered highly corrosive to steel. : None |
| OT Quantity Limitations Passenger aircraft/rail 49 CFR 173.27) | |
| OOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) | : 30 L |
| OOT Vessel Stowage Location | : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel. |
| Other information | : No supplementary information available. |

Transportation of Dangerous Goods

Transport by sea

Air transport

| SECTION 45. Desculatory information | |
|---|--|
| SECTION 15: Regulatory information | |
| 15.1. US Federal regulations | |
| Fluorosilicic Acid (FSA) | |
| Not listed on the United States TSCA (Toxic Substances Control Act) inventory | |
| All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory | |
| 5.2. International regulations | |
| CANADA | |
| Water (7732-18-5) | |
| Listed on the Canadian DSL (Domestic Substances List) | |
| hexafluorosilicic acid (16961-83-4) | |
| Listed on the Canadian DSL (Domestic Substances List) | |
| EU-Regulations | |
| No additional information available | |
| National regulations | |
| No additional information available | |

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

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| Component | State or local regulations |
|------------------------------------|---|
| hexafluorosilicic acid(16961-83-4) | U.S Massachusetts - Right To Know List; U.S New Jersey - Right to Know Hazardous Substance List |

SECTION 16: Other information

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Other information

: None.

Full text of H-statements:

| | H290 | May be corrosive to metals. |
|------|------------------|---|
| | H302 | Harmful if swallowed. |
| | H314 | Causes severe skin burns and eye damage. |
| NFF | PA health hazard | : 3 - Materials that, under emergency conditions, can cause serious or permanent injury. |
| NFF | PA fire hazard | : 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand. |
| NFF | PA reactivity | : 0 - Material that in themselves are normally stable, even under fire conditions. |
| Haz | ard Rating | |
| Hea | llth | : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given |
| Flar | nmability | : 0 Minimal Hazard - Materials that will not burn |
| Phy | sical | : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives. |

SDS US (GHS HazCom 2012)

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THATCHER COMPANY OF CALIFORNIA, INC. 8625 Unsworth Avenue, Sacramento, CA 95828

Phone (916) 389-2517 Fax (916) 389-2516



MAILING ADDRESSES

Address Then E-Mail Contracts & Agreements To:

Craig N. Thatcher, Chief Executive Officer Michael T. Mitchell, President Thatcher Company of California, Inc. P. O. Box 27407 Salt Lake City, UT 84127-0407 <u>craig.thatcher@tchem.com; mike.mitchell@tchem.com</u> Copy To: <u>wendy.richmond@tchem.com</u>

Address Requests for Bids & Quotations to Craig N. Thatcher, Chief Executive Officer, Then E-mail To:

Thatcher Company of California, Inc. Attn: Craig N. Thatcher, Chief Executive Officer P. O. Box 27407 Salt Lake City, UT 84127-0407 wendy.richmond@tchem.com

Mail Payment: Thatcher Company of California, Inc. LB 1106 P. O. Box 35146 Seattle, WA 98124-5146

Order Placement: Customer Service (916) 389-2517 <u>csca@tchem.com</u>

24/7 Customer & Transportation Service: (800) 375-7758

E-mail Requests For Certificate of Insurance: weidy.richmond@tchem.com

Bid Tabulation: <u>wendy.richmond@tchem.com;</u> jayson.stenquist@tchem.com