Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name
Hydrogen Fluoride in Nitrogen Gas Mixture

Product Use
Industrial and Specialty Gas Applications

Restrictions on Use
None known.

Details of the supplier of the safety data sheet
MATHESON TRI-GAS, INC.
909 Lake Carolyn Parkway
Suite 1300
Irving, TX 75039
General Information: 1-800-416-2505
Emergency #: 1-800-424-9300 (CHEMTREC)
Outside the US: 703-527-3887 (Call collect)

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.
Gases Under Pressure - Compressed gas
Acute Toxicity - Oral - Category 2
Acute Toxicity - Dermal - Category 1
Acute Toxicity - Inhalation - Gas - Category 2
Skin Corrosion/Irritation - Category 1
Serious Eye Damage/Eye Irritation - Category 1
Respiratory Sensitization - Category 1
Skin Sensitization - Category 1
Germ Cell Mutagenicity - Category 2
Specific target organ toxicity - Single exposure - Category 1
Specific target organ toxicity - Repeated exposure - Category 1
Simple Asphyxiant

GHS Label Elements
Symbol(s)

Signal Word
Danger

Hazard Statement(s)
Contains gas under pressure; may explode if heated.
Fatal in contact with skin.
Fatal if inhaled.
Fatal if swallowed.
Causes severe skin burns and eye damage.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Safety Data Sheet

Material Name: Hydrogen Fluoride in Nitrogen Gas Mixture

May cause an allergic skin reaction.
Suspected of causing genetic defects.
Causes damage to organs. (pancreas, respiratory system)
Causes damage to organs through prolonged or repeated exposure. (kidneys, liver, nervous system, pituitary gland, respiratory system, skeletal system, teeth, testes, thyroid)
May displace oxygen and cause rapid suffocation.

Precautionary Statement(s)

Prevention
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wear respiratory protection.
Do not get in eyes, on skin, or on clothing.
Wash thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.
Do not eat, drink or smoke when using this product.

Response
If exposed: Call a POISON CENTER or doctor/physician.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
Take off immediately all contaminated clothing and wash it before reuse.
Wash contaminated clothing before reuse.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
Immediately call a POISON CENTER or doctor.
Specific treatment is urgent (see label).

Storage
Protect from sunlight. Store in a well-ventilated place.
Keep container tightly closed.
Store locked up.

Disposal
Dispose in accordance with all applicable regulations.

Statement(s) of Unknown Acute Toxicity

Dermal 96.5% of the mixture consists of ingredient(s) of unknown acute toxicity.
Oral 96.5% of the mixture consists of ingredient(s) of unknown acute toxicity.
Inhalation 96.5% of the mixture consists of ingredient(s) of unknown acute toxicity.

Other Hazards
Rapid release of compressed gas may cause frostbite.

<table>
<thead>
<tr>
<th>Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CAS</strong></td>
</tr>
<tr>
<td>7727-37-9</td>
</tr>
</tbody>
</table>

Issue date: 2022-01-04  Revision 9.0  Print date: 2022-01-04
Section 4 - FIRST AID MEASURES

Inhalation
If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.

Skin
If frostbite or freezing occur, immediately flush with plenty of lukewarm water (105-115°F; 41-46°C). DO NOT USE HOT WATER. If warm water is not available, gently wrap affected parts in blankets. Get immediate medical attention. Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get immediate medical attention. Thoroughly clean and dry contaminated clothing and shoes before reuse. Destroy contaminated shoes.

Eyes
Immediately flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

Ingestion
If a large amount is swallowed, get medical attention.

Most Important Symptoms/Effects
Acute
frostbite, suffocation, respiratory tract burns, skin burns, eye burns, mucous membrane burns, allergic reactions, pancreas damage, respiratory system damage

Delayed
allergic reactions, bone damage, fluorosis, kidney damage, liver damage, nervous system damage, pituitary effects, respiratory system damage, tooth erosion, testes effects, thyroid effects, mutagenic effects

Note to Physicians
For inhalation, consider oxygen. Avoid gastric lavage or emesis.

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media
Suitable Extinguishing Media
regular dry chemical, carbon dioxide

Unsuitable Extinguishing Media
None known.

Special Hazards Arising from the Chemical
Negligible fire hazard. Containers may rupture or explode if exposed to heat.

Hazardous Combustion Products
halogenated compounds, oxides of nitrogen

Fire Fighting Measures
Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks. Use extinguishing agents appropriate for surrounding fire. Flood with fine water spray. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

Special Protective Equipment and Precautions for Firefighters
Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures
Wear personal protective clothing and equipment, see Section 8.

Methods and Materials for Containment and Cleaning Up
Safety Data Sheet

Material Name: Hydrogen Fluoride in Nitrogen Gas Mixture

SDS ID: 00244369

Environmental Precautions
Avoid release to the environment.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling
Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Do not eat, drink, or smoke when using this product.

Conditions for Safe Storage, Including any Incompatibilities
Protect from sunlight. Store in a well-ventilated place.
Keep container tightly closed.
Store locked up.
Store in accordance with all current regulations and standards. Cylinders should be stored upright (with valve protection cap in place). Protect from physical damage. Store in a cool, dry place. Store below 52 C. Keep separated from incompatible substances.

Incompatible Materials
Acids, amines, bases, combustible materials, Cyanides, halogens, metal oxides, metal salts, metals, oxidizing materials, reducing agents.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

<table>
<thead>
<tr>
<th>Component</th>
<th>Exposure Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrogen</td>
<td>7727-37-9</td>
</tr>
<tr>
<td>ACGIH:</td>
<td>(See Appendix F: Minimal Oxygen Content)</td>
</tr>
<tr>
<td>Hydrogen fluoride</td>
<td>7664-39-3</td>
</tr>
<tr>
<td>ACGIH:</td>
<td>0.5 ppm TWA as F</td>
</tr>
<tr>
<td></td>
<td>2 ppm Ceiling as F</td>
</tr>
<tr>
<td></td>
<td>Skin - potential significant contribution to overall exposure by the cutaneous route</td>
</tr>
<tr>
<td>NIOSH:</td>
<td>3 ppm TWA ; 2.5 mg/m3 TWA</td>
</tr>
<tr>
<td></td>
<td>6 ppm Ceiling 15 min ; 5 mg/m3 Ceiling 15 min</td>
</tr>
<tr>
<td></td>
<td>SK: SYS(FATAL)-DIR(COR) (Apr 2011)</td>
</tr>
<tr>
<td></td>
<td>30 ppm IDLH</td>
</tr>
<tr>
<td>Europe:</td>
<td>1.8 ppm TWA ; 1.5 mg/m3 TWA</td>
</tr>
<tr>
<td></td>
<td>3 ppm STEL ; 2.5 mg/m3 STEL</td>
</tr>
<tr>
<td>OSHA (US):</td>
<td>3 ppm TWA as F</td>
</tr>
</tbody>
</table>
ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI)
Hydrogen fluoride (7664-39-3)
3 mg/g creatinine Medium: urine Time: prior to shift Parameter: Fluoride (background, nonspecific ); 10 mg/g creatinine Medium: urine Time: end of shift Parameter: Fluoride (background, nonspecific )

Engineering Controls
Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits.

Individual Protection Measures, such as Personal Protective Equipment
Eye/face protection
Wear splash resistant safety goggles with a faceshield. Contact lenses should not be worn. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Skin Protection
For the gas: Wear appropriate chemical resistant clothing. For the liquid: Wear appropriate protective, cold insulating clothing.

Respiratory Protection
The following respirators and maximum use concentrations are drawn from NIOSH and/or OSHA. Measurement Element: F. 30 ppm. Any air-purifying half-mask respirator equipped with cartridge(s) providing protection against the compound of concern. Any powered, air-purifying respirator with cartridge(s) providing protection against this substance. Any air-purifying full-facepiece respirator (gas mask) with a chin-style, front-mounted or back-mounted canister providing protection against the compound of concern. Any supplied-air respirator. Any self-contained breathing apparatus with a full facepiece. Emergency or planned entry into unknown concentrations or IDLH conditions -. Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode. Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode. Escape -. Any air-purifying full-facepiece respirator (gas mask) with a chin-style, front-mounted or back-mounted canister providing protection against the compound of concern. Any appropriate escape-type, self-contained breathing apparatus.

Glove Recommendations
For the gas: Wear appropriate chemical resistant gloves. For the liquid: Wear chemical resistant, insulated gloves.

### Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Physical State</th>
<th>Gas</th>
<th>Physical State</th>
<th>Color</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Odor</td>
<td>Pungent odor</td>
<td>Gas</td>
<td>Odor Threshold</td>
<td>0.04 ppm (Hydrogen fluoride)</td>
<td>pH</td>
</tr>
<tr>
<td>Melting Point</td>
<td>-210 °C (-346 °F Nitrogen)</td>
<td>Boiling Point</td>
<td>-195.8 °C (-320 °F Nitrogen)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boiling Point Range</td>
<td>Not available</td>
<td>Freezing point</td>
<td>Not available</td>
<td></td>
<td></td>
</tr>
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<td>Evaporation Rate</td>
<td>Not available</td>
<td>Flammability (solid, gas)</td>
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<td></td>
</tr>
<tr>
<td>Property</td>
<td>Value</td>
<td></td>
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<tr>
<td>-----------------------------------------</td>
<td>------------------------------------</td>
<td></td>
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<tr>
<td>Autoignition Temperature</td>
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<td></td>
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<tr>
<td>Flash Point</td>
<td>(Not flammable)</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Lower Explosive Limit</td>
<td>Not available</td>
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<td></td>
<td></td>
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<tr>
<td>Decomposition temperature</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Upper Explosive Limit</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not available</td>
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<tr>
<td>Vapor Density (air=1)</td>
<td>Not available</td>
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<tr>
<td>Specific Gravity (water=1)</td>
<td>0.906 at 21.1 °C</td>
<td></td>
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<tr>
<td>Water Solubility</td>
<td>Not available</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not available</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Viscosity</td>
<td>Not available</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kinematic viscosity</td>
<td>Not available</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solubility (Other)</td>
<td>Not available</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Density</td>
<td>Not available</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical Form</td>
<td>Compressed gas</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>Not available</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>Not available</td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

**Section 10 - STABILITY AND REACTIVITY**

**Reactivity**
No reactivity hazard is expected.

**Chemical Stability**
Stable at normal temperatures and pressure.

**Possibility of Hazardous Reactions**
Will not polymerize.

**Conditions to Avoid**
Avoid heat, flames, sparks and other sources of ignition. May ignite or explode on contact with combustible materials.

**Incompatible Materials**
Acids, amines, bases, combustible materials, Cyanides, halogens, metal oxides, metal salts, metals, oxidizing materials, reducing agents

**Hazardous decomposition products**
halogenated compounds, oxides of nitrogen

**Water or Moisture**
hydrofluoric acid

**Section 11 - TOXICOLOGICAL INFORMATION**

**Information on Likely Routes of Exposure**

**Inhalation**
burns, fluorosis, kidney damage, liver damage

**Skin Contact**
burns, absorption may occur, fluorosis

**Eye Contact**
burns

**Ingestion**
burns

**Acute and Chronic Toxicity**
Component Analysis - LD50/LC50
Material Name: Hydrogen Fluoride in Nitrogen Gas Mixture

The components of this material have been reviewed in various sources and the following selected endpoints are published:

**Hydrogen fluoride (7664-39-3)**
Inhalation LC50 Rat 0.79 mg/L 1 h

**Product Toxicity Data**

<table>
<thead>
<tr>
<th>Toxicity Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dermal</td>
<td>5 mg/kg</td>
</tr>
<tr>
<td>Inhalation - Gas</td>
<td>482.8875 ppm</td>
</tr>
</tbody>
</table>

**Immediate Effects**
frostbite, suffocation, respiratory tract burns, skin burns, eye burns, mucous membrane burns, allergic reactions, pancreas damage, respiratory system damage

**Delayed Effects**
allergic reactions, bone damage, fluorosis, kidney damage, liver damage, nervous system damage, pituitary effects, respiratory system damage, tooth erosion, testes effects, thyroid effects, mutagenic effects

**Irritation/Corrosivity Data**
respiratory tract burns, skin burns, eye burns, mucous membrane burns.

**Respiratory Sensitization**
Component data indicate the substance is sensitizing.

**Dermal Sensitization**
Component data indicate the substance is sensitizing.

**Component Carcinogenicity**

<table>
<thead>
<tr>
<th>Component</th>
<th>Carcinogenicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen fluoride</td>
<td>7664-39-3</td>
</tr>
<tr>
<td>ACGIH:</td>
<td>A4 - Not Classifiable as a Human Carcinogen (related to Fluorides)</td>
</tr>
</tbody>
</table>

**Germ Cell Mutagenicity**
Available data characterizes this substance as mutagenic.

**Tumorigenic Data**
No data available

**Reproductive Toxicity**
No data available for the mixture.

**Specific Target Organ Toxicity - Single Exposure**
Respiratory system, pancreas

**Specific Target Organ Toxicity - Repeated Exposure**
kidneys, liver, nervous system, pituitary gland, Respiratory system, skeletal system, teeth, testes, thyroid

**Aspiration hazard**
Not applicable.

**Medical Conditions Aggravated by Exposure**
bone, joint or tooth disorders, kidney disorders, respiratory disorders, skin disorders, heart disorders, eye disorders

---

Section 12 - ECOLOGICAL INFORMATION

**Component Analysis - Aquatic Toxicity**

<table>
<thead>
<tr>
<th>Component</th>
<th>Aquatic Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen fluoride</td>
<td>7664-39-3</td>
</tr>
<tr>
<td>Invertebrate:</td>
<td>EC50 48 h Daphnia species 270 mg/L IUCLID</td>
</tr>
</tbody>
</table>

**Persistence and Degradability**
Safety Data Sheet

Material Name: Hydrogen Fluoride in Nitrogen Gas Mixture  
SDS ID: 00244369

No data available for the mixture.

Bioaccumulative Potential
No data available for the mixture.

Mobility
No data available for the mixture.

Other Toxicity
Due to the corrosivity of this gas, contact with animals, plants and aquatic life may cause damage or be fatal.

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods
Dispose in accordance with all applicable regulations.

Component Waste Numbers
The U.S. EPA has not published waste numbers for this product's components.

Section 14 - TRANSPORT INFORMATION

US DOT Information:
Shipping Name: COMPRESSED GAS, N.O.S., (Contains: Nitrogen, Hydrogen fluoride)
Hazard Class: 2.2
UN/NA #: UN1956
Required Label(s): 2.2

IMDG Information:
Shipping Name: COMPRESSED GAS, N.O.S., (Contains: Nitrogen, Hydrogen fluoride)
Hazard Class: 2.2
UN#: UN1956
Required Label(s): 2.2

International Bulk Chemical Code
This material does not contain any chemicals required by the IBC Code to be identified as dangerous chemicals in bulk.

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations
This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

<table>
<thead>
<tr>
<th>Chemical</th>
<th>SARA 302:</th>
<th>SARA 313:</th>
<th>CERCLA:</th>
<th>OSHA (safety):</th>
<th>SARA 304:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen fluoride</td>
<td>100 lb TPQ</td>
<td>1 % de minimis concentration</td>
<td>100 lb final RQ; 45.4 kg final RQ</td>
<td>1000 lb TQ; 1000 lb TQ (anhydrous)</td>
<td>100 lb EPCRA RQ</td>
</tr>
</tbody>
</table>

SARA Section 311/312 (40 CFR 370 Subparts B and C) reporting categories
Gas Under Pressure; Acute toxicity; Skin Corrosion/Irritation; Respiratory/Skin Sensitization; Serious Eye Damage/Eye Irritation; Specific Target Organ Toxicity; Germ Cell Mutagenicity; Simple Asphyxiant
Material Name: Hydrogen Fluoride in Nitrogen Gas Mixture

U.S. State Regulations
The following components appear on one or more of the following state hazardous substances lists:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>CA</th>
<th>MA</th>
<th>MN</th>
<th>NJ</th>
<th>PA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrogen</td>
<td>7727-37-9</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Hydrogen fluoride</td>
<td>7664-39-3</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)
Not listed under California Proposition 65.

Component Analysis - Inventory
Nitrogen (7727-37-9)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>DSL</td>
<td>Yes</td>
<td>Yes</td>
<td>EIN</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

Hydrogen fluoride (7664-39-3)

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>DSL</td>
<td>Yes</td>
<td>Yes</td>
<td>EIN</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

NFPA Ratings
Health: 3 Fire: 0 Instability: 0
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Summary of Changes
Updated: 12/24/2015

Key / Legend
ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CA/MA/MN/NJ/PA* - California/Massachusetts/Minnesota/New Jersey/Pennsylvania*; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CFR - Code of Federal Regulations (US); CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EC – European Commission; EEC - European Economic Community; EIN - European Inventory of (Existing Commercial Chemical Substances); EINECS - European Inventory of Existing Commercial Chemical Substances; ENCS - Japan Existing and New Chemical Substance Inventory; EPA -
Safety Data Sheet

Material Name: Hydrogen Fluoride in Nitrogen Gas Mixture

Environmental Protection Agency; EU - European Union; F - Fahrenheit; F - Background (for Venezuela Biological Exposure Indices); IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; ISHL - Japan Industrial Safety and Health Law; IUCLID - International Uniform Chemical Information Database; JP - Japan; Kow - Octanol/water partition coefficient; KR KECI Annex 1 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL); KR KECI Annex 2 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL), KR - Korea; LD50/LC50 - Lethal Dose/ Lethal Concentration; KR REACH CCA - Korea Registration and Evaluation of Chemical Substances Chemical Control Act; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR’s Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; MX – Mexico; Ns- Non-specific; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; Nq - Non-quantitative; NSL – Non-Domestic Substance List (Canada); NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PEL- Permissible Exposure Limit; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH - Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; Sc - Semi-quantitative; STEL - Short-term Exposure Limit; TCCA – Korea Toxic Chemicals Control Act; TDG - Transportation of Dangerous Goods; TH-TECI - Thailand - FDA Existing Chemicals Inventory (TECI); TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act; TW – Taiwan; TWA - Time Weighted Average; UEL - Upper Explosive Limit; UN/NA - United Nations /North American; US - United States; VLE - Exposure Limit Value (Mexico); VN (Draft) - Vietnam (Draft); WHMIS - Workplace Hazardous Materials Information System (Canada).

Other Information

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