

Material Safety Data Sheet

1. Identification of Substance and of the Company

Company: NISHIYAMA STAINLESS CHEMICAL CO. LTD SINGAPORE BRANCH

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Company No.: F06533C

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Trade names/Synonyms: SUS CLEAN #300 X

Chemical Family: Inorganic Acid

Creation Date: September 11, 2004

Revision Date:

2. Composition/Information on Ingredients

Component: Hydrofluoric Acid

Cas No.: 7664-39-3

Percentage: 3.0-10.0%

Component: Nitric Acid

Cas No.: 7697-37-2

Percentage: 10.0-20.0%

Component: Ammonium Bifluorine

Cas No.: 1341-49-7

Percentage: 3.0-10.0%

Component: Water

CAS No.: 7732-18-5

Percentage: 30.0-72.0%

Component: Additives

Percentage: 12.0-25.0%

3. Hazard Identification

Toxic and Corrosive with water.

UN classification: 8

4. First-Aid Measures

Inhalation:

Remove from exposure area to fresh air immediately

If necessary, seek prompt medical attention

Skin Contact:

Remove contaminated clothing and shoes immediately.

Wash affected area with large amount of water (at least 30 - 60 minutes)

Eye contact:

Wash/flush eyes immediately with large amounts of water (at least 30 - 60 minutes)

5. Fire Fighting Measures

Fire and Explosion Hazard: Not applicable.

Extinguishing Media:

Extinguishing media includes dry chemical, carbon dioxide, water spray, or regular form.

6. Accidental Release Measures

Occupational Spill:

Do not touch spilled material. Wear a laboratory coat or acid - proof overalls, gloves, approved self contained breathing apparatus and safety boots. Stop leak if you can do it without risk. For a small amount, take up with sand or other absorbent material and place into containers for later disposal. For small dry leak, place material with clean shovels into clean dry container and cover it. Transfer the container from the spill area. For a large amount of leak, evacuate area. Reduce vapors with water spray.

Soil Spill:

Wear appropriate personal protective equipment (refer to Occupational Spill). Dig holding area such as lagoon, pond or pit for containment. Dike the spilled material for later disposal. Absorb with sand or other non-combustible material. Add an alkaline material such as lime, crushed limestone, sodium bicarbonate or soda ash.

Air Spill:

Wear appropriate personal protective equipment (refer to Occupational Spill). Reduce vapors with water spray. Collect runoff for disposal as potential hazardous waste.

Water Spill:

Add alkaline material such as lime, crushed limestone, sodium bicarbonate or soda ash to neutralize. Collect spilled material by using mechanical equipment.

7. Handling and Storage

Precaution:

Do not use under sunshine. Wear approved respirator, chemical -resistant gloves, safety goggles and other protective clothing. Use face shield or combined eye and respiratory protection. Provide ventilation, local exhaust, safety shower and eye bath in work place. Do not bath vapor and mist. Do not get in eyes, on skins and on clothing. Avoid exposure. After handling, wash the body and contaminated clothing.

Storage Condition:

Store in shade to avoid sunshine. Ventilate at floor available.

8.Exposure Controls/Personal Protection

Personal Protection:

Respiratory Protection: Gas mask or air-ventilated mask

Protective Gloves: Anticorrosive protective gloves

Eye Protection: Anticorrosive safety goggles

Other Protective clothing or equipment: Wear appropriate chemical resistant gloves and clothing.

Other operational precautions: Wash hands and face after using / handling operation.

9.Physical and Chemical Properties

Appearance: Milk gelling

Color:

Boiling Point: 98.5°C

Melting Point: -37°C

Flash Point: Not to boil

Vapor Pressure: Not available

Vapor Density: Not available

Specific Gravity: 1.07

Water Solubility: Soluble

Odor Threshold: Pungent odor

Evaporation Rate: Not available

Hazardous Polymerization: Alcohol

Hazardous Decomposition or by products: Not known

10.Stability and Reactivity

Stability: Unstable

Incompatibilities: Corrosive to metal, glass and silicate.

11.Toxicological Information

Toxicity: Highly corrosive to body (acute and chronic)

Route of Entry: Inhalation, Skin Contact, Ingestion

Exposure Limit: 3ppm

Permit Limit: 3ppm

Medical Conditions Generally Aggravated by Exposures: 30ppm Immediate danger to life or health

12.Ecological Information

This substance may be harmful to aquatic organisms.

13.Disposal Consideration

Before disposal, neutralizing treatment to be made with suitable agents such as agriculture lime or lime.

Waste must be disposed of in accordance with federal, state and local environment control

14. Transport Information

Any transportation practice must be in compliance with local, state or federal laws and regulations. (Contact local or state transportation agency for specific rules.)

UN No.: 2031

15. Regulatory Information (not meant to be all inclusive)

Follow all local regulations

16. Other Information

References:

This information herein is given in good faith, but no warranty, express or implied, is made. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used in caution. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exists.