



SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Product name: 2,2-Difluoro-1,3-dimethylimidazolidine
Product code: D2831
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Revision number: 1

2. HAZARDS IDENTIFICATION

Classification of the GHS

PHYSICAL HAZARDS

Flammable liquids Category 3

HEALTH HAZARDS

Acute toxicity (Oral) Category 3

Skin corrosion/irritation Category 1B

Serious eye damage/eye irritation Category 1

ENVIRONMENTAL HAZARDS

Not classified

GHS label elements

Pictograms or hazard symbols



Signal word

Danger

Hazard statement

Flammable liquid and vapour

Toxic if swallowed

Causes severe skin burns and eye damage

Precautionary statements

[Prevention]

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Keep container tightly closed.

Use explosion-proof electrical/ventilating/lighting equipment. Take precautionary measures against ignition by the static discharge and the spark.

Do not breathe.

Do not eat, drink or smoke when using this product.

Wash hands thoroughly after handling.

Wear protective gloves/eye protection/face protection.

[Response]

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth.

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.

Wash contaminated clothing before reuse.

Immediately call a POISON CENTER or doctor/physician.

2. HAZARDS IDENTIFICATION

[Storage]

Store in a well-ventilated place. Keep cool.
Store locked up.

[Disposal]

Dispose of contents/container through a waste management company authorized by the local government

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture:	Substance
Component(s):	2,2-Difluoro-1,3-dimethylimidazolidine
Percent:	>96.0%(T)
CAS Number:	220405-40-3
Chemical Formula:	C ₅ H ₁₀ F ₂ N ₂

4. FIRST AID MEASURES

Inhalation:

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

Skin contact:

Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Immediately call a POISON CENTER or doctor/physician.

Eye contact:

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Ingestion:

Immediately call a POISON CENTER or doctor/physician. Rinse mouth.

Protection of first-aiders:

A rescuer should wear personal protective equipment, such as rubber gloves and air-tight goggles.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Dry chemical, carbon dioxide.

Extinguishing media not to be used: Water

Specific hazards: Take care as it may decompose upon combustion or in high temperatures to generate poisonous fume.

Specific methods: Fire-extinguishing work is done from the windward and the suitable fire-extinguishing method according to the surrounding situation is used. Uninvolved persons should evacuate to a safe place. In case of fire in the surroundings: Keep containers cool by spraying with water but NO direct contact with water. Eliminate all ignition sources if safe to do so.

Special protective equipment for firefighters: When extinguishing fire, be sure to wear personal protective equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Use extra personal protective equipment (self-contained breathing apparatus). Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.

Environmental precautions: Prevent product from entering drains.

Methods and materials for containment and cleaning up: Absorb spilled material in dry sand or inert absorbent before recovering it into an airtight container. In case of large amount of spillage, contain a spill by bunding. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

Prevention of secondary hazards: Do not allow contact with water. Remove all sources of ignition. Fire-extinguishing devices should be prepared in case of a fire. Use spark-proof tools and explosion-proof equipment.

7. HANDLING AND STORAGE

Handling

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Technical measures: Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent generation of vapor or mist. Keep away from heat/sparks/open flame/hot surfaces. -No smoking. Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment. Wash hands and face thoroughly after handling.

Use a closed system if possible. Use a ventilation, local exhaust if vapor or aerosol will be generated.

Advice on safe handling: Avoid contact with skin, eyes and clothing.
May develop pressure. Open carefully.

Storage

Storage conditions: Keep container tightly closed. Store in an explosion-proof refrigerator.
Store under inert gas.
Protect from moisture.

Store locked up.
Store away from incompatible materials such as oxidizing agents.

Packaging material: Law is followed.
Do not use containers made of metals or glasses.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls: Install a closed system or local exhaust. Also install safety shower and eye bath.

Personal protective equipment

Respiratory protection: Half or full facepiece respirator, self-contained breathing apparatus(SCBA), supplied air respirator, etc. Use respirators approved under appropriate government standards and follow local and national regulations.

Hand protection: Impervious gloves.

Eye protection: Safety goggles. A face-shield, if the situation requires.

Skin and body protection: Impervious protective clothing. Protective boots, if the situation requires.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state (20°C): Liquid
Form: clear
Color: Colorless - Pale yellow
Odor: No data available
pH: No data available
Melting point/freezing point: No data available
Boiling Point/Range: No data available
Flash Point: 40°C

Explosive limits

Lower: No data available
Upper: No data available

Vapor Pressure: 3.07kPa/42°C

Density: 1.11

Solubility: Soluble in : n-Hexane Ether Acetonitrile Toluene Chloroform Dichloromethane
Dioxane

Decomposition temperature: 150.5 °C

10. STABILITY AND REACTIVITY

Stability: Stable under proper conditions.

Reactivity: Decomposes in contact with water and liberates toxic gases.

Conditions to avoid: Heat-sensitive, Moisture-sensitive

Incompatible materials: oxidizing agents, strong acids, bases, water, alcohols, amines, halogenated compounds, ketones

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Nitrogen oxides (NOx), Hydrogen fluoride

11. TOXICOLOGICAL INFORMATION

Acute Toxicity:	No data available
Skin corrosion/irritation:	No data available
Serious eye damage/irritation:	No data available
Germ cell mutagenicity:	No data available
Carcinogenicity:	
IARC =	No data available
NTP =	No data available
Reproductive toxicity:	No data available

12. ECOLOGICAL INFORMATION

Ecotoxicity:	
Fish:	No data available
Crustacea:	No data available
Algae:	No data available
Persistence / degradability:	No data available
Bioaccumulative potential(BCF):	No data available
Mobility in soil	
log Pow:	No data available
Soil adsorption (Koc):	No data available
Henry's Law constant(PaM³/mol):	No data available

13. DISPOSAL CONSIDERATIONS

Recycle to process, if possible. Consult your local regional authorities. You may be able to burn in a chemical incinerator equipped with an afterburner and scrubber system. Observe all federal, state and local regulations when disposing of the substance.

14. TRANSPORT INFORMATION

Hazards Class:	8: Corrosive.
Subsidiary risk:	3: Flammable liquid.
UN-No:	2920
Proper shipping name:	Corrosive liquid, flammable, n.o.s.
Packing group:	II

15. REGULATORY INFORMATION

Safe management ordinance of dangerous chemical product (State Council announces on January 26, 2002): Safe use and production, the storage of a dangerous chemical, transport, loading and unloading were prescribed.

16. OTHER INFORMATION

The reference company name of written contents

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