

1. Product and Company Identification

Product Codes: 60-4040
Product Name: 2% TFA
Product Use: For Research Use Only
Manufacturer Information
Company Name: Glen Research LLC
22825 Davis Drive, #100
Sterling, VA 20164 USA
+1-703-437-6191
Phone Number:
Web Site Address: www.glenresearch.com
Email Address: msds@glenres.com
Information in case of emergency Chemtrec, 800-424-9300; Outside USA +1-703-527-3887

2. Hazards Identification



Pictograms:

Signal Words: N/A

GHS Hazard Statements

H314: Causes severe skin burns and eye damage
H332: Harmful if inhaled.
H412: Harmful to aquatic life with long lasting effects.

GHS Precautionary Statements

P103: Read label before use.
P260: Avoid breathing fumes or vapors.
P270: Do not eat, drink or smoke when using this product

GHS Response Statements

P301+330: IF SWALLOWED: Rinse mouth with water.
P302+350: IF ON SKIN: Gently wash with soap and water.
P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so - continue rinsing.
P306+360: IF ON CLOTHING: Rinse contaminated clothing and skin immediately with plenty of water before removing clothes.
P312: Call a POISON CENTER or doctor/physician if you feel unwell.
P362: Take off contaminated clothing and wash before use.

GHS Storage and Disposal Phrases

P402+404: Store in dry place. Store in closed container.
P501: Dispose of contents / container in a safe way in accordance with all federal, state and local regulations.

Emergency Overview

No data available.

Target Organs

No data available

SAFETY DATA SHEET
Product 60-4040-XX

3. Composition/Information on Ingredients

Product Name	CAS #	EC-No	Concentration	M.W.	Formula
Trifluoroacetic acid	76-05-1	200-929-3	2%	114.02 g/mol	C ₂ HF ₃ O ₂
Water	7732-18-5	231-791-2	98%	18.02 g/mol	H ₂ O

4. First Aid Measures

Emergency and First Aid Procedures

If inhaled:

Remove to fresh air. If not breathing, give artificial respiration. Get medical attention.

In case of skin contact:

Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Wash clothing before reuse. Get medical attention.

If swallowed:

Rinse mouth with water. Do not induce vomiting. Get medical attention.

If in contact with eyes:

Rinse cautiously with water for several minutes. Remove contact lenses if present and safe to do so. Continue rinsing. Get medical attention.

Signs and Symptoms of Exposure

No data available.

Treatment

Treat symptomatically.

5. Fire Fighting Measures

Suitable Extinguishing Media

Use a Class A Extinguisher (Dry chemical, carbon dioxide, water or foam).

Special protective equipment for fire fighters

Wear self-contained breathing apparatus (SCBA) for fire fighting if necessary.
Wear protective clothing to prevent contact with skin and eyes.

Flammable Properties and Hazards

No data available.

6. Accidental Release Measures

Personal Precautions

Avoid breathing vapors. Evacuate personnel to safe areas.

Protective equipment

Use personal protective equipment. Avoid contact with skin, eyes, and clothing.

Emergency procedures

Ensure adequate ventilation.

Methods and Material for containment and cleaning up.

Absorb spillage with sand, absorbent pads. Do not let product enter the drain. Wear impermeable gloves, safety glasses and a lab coat when cleaning up the spill. Dispose of absorbent and spillage in compliance with local and state regulations.

7. Handling and Storage

Precautions To Be Taken in Handling

Handle using safe laboratory practices. Avoid all direct contact.

Recommended Storage

Controlled room temperature.

Precautions To Be Taken in Storing

Keep container tightly closed. Store in well-ventilated place.

Other Precautions

Protect from sunlight.

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Product 60-4040-XX

8. Exposure Controls/Personal Protection

Product Name	CAS #	OSHA PEL (TWA)	ACGIH TLV	OSHA (STEL)
Trifluoroacetic acid	76-05-1	N/A	N/A	N/A

Engineering Controls (Ventilation etc.)

Local exhaust ventilation is usually sufficient.

Respiratory Equipment (Specify Type)

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls.

Eye Protection

Safety glasses with side shields. Wear splash resistant goggles or face shield if splashes are likely to occur.

Protective Gloves

Impermeable, chemically resistant gloves.

Other Protective Clothing

Lab coat, chemical resistant lab coat, protective chemical suit, based on risk assessment of activities.

Work/Hygienic/Maintenance Practices

Wash hands after handling. Do not eat, drink, or smoke when using this product.

9. Physical and Chemical Properties

Physical State:	<input type="checkbox"/> Gas <input checked="" type="checkbox"/> Liquid <input type="checkbox"/> Solid
Appearance:	Liquid, clear.
Odor:	Pungent
Odor Threshold:	No data
pH:	No data
Melting Point:	No data
Initial Boiling Point and Boiling Range:	No data
Flash Point:	No data
Density:	1.009 g/mL
Evaporation Rate:	No data
Flammability:	Not flammable
Explosive Limits:	LEL: No data UEL: No data
Vapor Pressure (vs. Air or mm Hg):	No data
Vapor Density (vs. Air = 1):	No data
Solubility in Water:	Fully soluble
Partition Coefficient (n-octanol/water):	Log Pow: N/A
Auto-ignition Temperature:	No data
Decomposition Temperature:	No data
Viscosity:	No data
Percent Volatile:	No data

10. Stability and Reactivity

Reactivity

Stable material, hazardous polymerization will not occur.

Chemical Stability: Unstable Stable

Possibility of Hazardous Reactions:

No data.

Conditions To Avoid - Instability

No data available

Incompatibility - Materials To Avoid

Strong bases, metals, alcohols, epoxides, steel, aluminum, oxidizing agents.

Hazardous Decomposition or Byproducts

Oxides of carbon, hydrogen fluoride

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11. Toxicological Information

Route(s) of Entry:

Inhalation? Yes

Skin? Yes

Eyes? Yes

Ingestion? Yes

Acute Toxicity

No data available

Skin corrosion/irritation

No data available

Serious eye damage/ eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ Cell mutagenicity

No data available

Carcinogenicity

Product Name

Trifluoroacetic acid

CAS #

76-05-1

NTP

Not listed

IARC

Not listed

OSHA

Not listed

Reproductive toxicity

No data available

Specific target organ toxicity – single exposure (GHS)

No data available

Specific target organ toxicity – repeated exposure (GHS)

No data available

Aspiration hazard

No

Medical Conditions Generally Aggravated By Exposure

No data available.

This product should be handled with the usual care when dealing with chemicals.

12. Ecological Information

Ecotoxicity

No data available.

Persistence and degradability

No data available

Bioaccumulative potential

No data available.

Mobility in soil

No data available

Other adverse effects

No data available

13. Disposal Considerations

Waste Disposal Method

Observe all federal, state and local regulations. For Contaminated Packaging - dispose of in compliance with regulations. Contact a licensed professional waste disposal service for proper disposal. Burn in a chemical incinerator equipped with afterburner and scrubber.

14. Transport Information

LAND TRANSPORT (49CFR)

UN Number - UN3265, Class 8, Packing Group III

Proper Shipping Name: Corrosive Liquid, Organic, N.O.S. (Trifluoroacetic acid solution)

Marine Pollutant: No

Poison Inhalation Hazard (PIH): No

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AIR TRANSPORT (ICAO/IATA)

UN Number - UN3265, Class 8, Packing Group III
Proper Shipping Name: Corrosive Liquid, Organic, N.O.S. (Trifluoroacetic acid solution)

MARINE TRANSPORT (IMDG/IMO)

UN Number - UN3265, Class 8, Packing Group III, EMS F-A, S-B
Proper Shipping Name: Corrosive Liquid, Organic, N.O.S. (Trifluoroacetic acid solution)
Marine Pollutant: No

15. Regulatory Information

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

Not Listed

SARA 311/312

No SARA Hazards

Massachusetts Right to Know Components

No components are subject to the Massachusetts Right to Know Act

Pennsylvania Right to Know Components

Water	7732-18-5
Trifluoroacetic acid	76-05-1

New Jersey Right to Know Components

Water	7732-18-5
Trifluoroacetic acid	76-05-1

California Prop. 65 Components

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

16. Other Information

For all other inquiries about this product contact Glen Research at 1-800-327-GLEN or 1-703-437-6191.

The information provided herein is based on sources believed to be reliable as of December 11, 2020 and pertains only to the material designated. Glen Research Corporation makes no warranty or representation to its completeness, accuracy or currency. This material is intended for use by persons with the pertinent technical skills, and at their discretion and risk. It is the responsibility of the user to determine the product's suitability for its intended use, the product's safe use and the product's proper disposal. Disposal of hazardous material may be subject to federal, state or local regulations.