

Trifluoroacetic Acid (360)**000000011978**

Version 1.3

Revision Date 04/14/2014

Print Date 09/10/2014

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Trifluoroacetic Acid (360)

MSDS Number : 000000011978

Product Use Description : Solvent

Manufacturer or supplier's details : Honeywell International Inc.
101 Columbia Road
Morristown, NJ 07962-1057

For more information call : 1-800-368-0050
+1-231-726-3171
(Monday-Friday, 9:00am-5:00pm)

In case of emergency call : **Medical: 1-800-498-5701 or +1-303-389-1414**
: **Transportation (CHEMTREC): 1-800-424-9300 or +1-703-527-3887**
:
: (24 hours/day, 7 days/week)

SECTION 2. HAZARDS IDENTIFICATION**Emergency Overview**

Form : liquid, clear

Color : colourless

Odor : strong pungent vinegar-like

Classification of the substance or mixture

Classification of the substance or mixture : Corrosive to metals, Category 1
Acute toxicity, Category 4, Inhalation
Skin corrosion, Category 1A
Serious eye damage, Category 1

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GHS Label elements, including precautionary statements

Symbol(s)

:



Signal word

: Danger

Hazard statements

: May be corrosive to metals.
Causes severe skin burns and eye damage.
Harmful if inhaled.

Precautionary statements

: **Prevention:**
Keep only in original container.
Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
Wash skin thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/ eye protection/ face protection.**Response:**IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: 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.
Wash contaminated clothing before reuse.
Absorb spillage to prevent material damage.**Storage:**Store locked up.
Keep only in original container.**Disposal:**

Dispose of contents/ container to an approved waste disposal plant.

Carcinogenicity

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No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP, IARC, or OSHA.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTSFormula : C₂HF₃O₂

Chemical nature : Substance

Chemical Name	CAS-No.	Concentration
Trifluoroacetic acid	76-05-1	100.00 %

SECTION 4. FIRST AID MEASURES

Inhalation : Call a physician immediately. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Use oxygen as required, provided a qualified operator is present.

Skin contact : Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. Wash contaminated clothing before re-use. Call a physician immediately.

Eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately.

Ingestion : Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. If victim is fully conscious, give a cupful of water. Call a physician immediately.

Notes to physician

Treatment : Treat symptomatically.

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SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Water spray
Foam
Carbon dioxide (CO₂)
Dry chemical
Cool closed containers exposed to fire with water spray.
- Specific hazards during firefighting : In case of fire hazardous decomposition products may be produced such as:
Carbon monoxide
Carbon dioxide (CO₂)
Hydrogen fluoride
- Special protective equipment for firefighters : Wear self-contained breathing apparatus and protective suit.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Immediately evacuate personnel to safe areas.
Wear personal protective equipment. Unprotected persons must be kept away.
Keep people away from and upwind of spill/leak.
Ensure adequate ventilation.
Remove all sources of ignition.
Do not swallow.
Do not breathe vapours or spray mist.
Do not get in eyes, on skin, or on clothing.
- Environmental precautions : Prevent further leakage or spillage if safe to do so.
Do not let product enter drains.
Discharge into the environment must be avoided.
Do not flush into surface water or sanitary sewer system.
- Methods for cleaning up : Large spills should be collected mechanically (remove by pumping) for disposal.
Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13).
With acids neutralization takes place under development of

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heat.
Neutralise with the following product(s):
soda ash
lime

SECTION 7. HANDLING AND STORAGE**Handling**

Handling : Wear personal protective equipment.
Do not use in areas without adequate ventilation.
When diluting, add acids to water, never the other way around.
Wash hands thoroughly after handling.
Do not swallow.
Do not breathe vapours or spray mist.
Do not get in eyes, on skin, or on clothing.

Advice on protection against fire and explosion : Keep containers and surroundings cool with water spray.

Storage

Requirements for storage areas and containers : Keep containers tightly closed in a dry, cool and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Keep away from direct sunlight.
Store away from incompatible substances.
Protect from physical damage.
Observe label precautions.
Store in original container.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Protective measures : Ensure that eyewash stations and safety showers are close to the workstation location.

Engineering measures : Use with local exhaust ventilation.
Prevent vapour buildup by providing adequate ventilation during and after use.

Eye protection : Do not wear contact lenses.

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- Goggles or face shield, giving complete protection to eyes
- Hand protection : Impervious gloves
Gloves must be inspected prior to use.
Replace when worn.
- Skin and body protection : Wear as appropriate:
Acid-resistant protective clothing
If splashes are likely to occur, wear:
Protective suit
- Respiratory protection : In case of insufficient ventilation wear suitable respiratory equipment.
Use NIOSH approved respiratory protection.
- Hygiene measures : Keep working clothes separately.
Remove and wash contaminated clothing before re-use.
Contaminated work clothing should not be allowed out of the workplace.
When using, do not eat, drink or smoke.
Wash hands before breaks and immediately after handling the product.
Do not swallow.
Do not breathe vapours or spray mist.
Do not get in eyes, on skin, or on clothing.

Exposure Guidelines

Contains no substances with occupational exposure limit values.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Physical state : liquid, clear
- Color : colourless
- Odor : strong pungent vinegar-like
- pH : Note: no data available
- Melting point/freezing point : -15.4 °C
- Boiling point/boiling range : 72 °C at 1,013 hPa

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Flash point	: Method: closed cup Note: None
Lower explosion limit	: Note: not applicable
Upper explosion limit	: Note: not applicable
Vapor pressure	: 142.65 hPa at 25 °C(77 °F)
Vapor density	: Note: not determined
Density	: 1.48 g/cm3 at 20 °C
Water solubility	: Note: completely soluble
Ignition temperature	: Note: not applicable
Molecular weight	: 114 g/mol

SECTION 10. STABILITY AND REACTIVITY

Chemical stability	: Stable under recommended storage conditions.
Possibility of hazardous reactions	: Hazardous polymerisation does not occur.
Conditions to avoid	: Protect from moisture. Keep away from direct sunlight.

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Incompatible materials to avoid : Bases
Oxidizing agents
Reducing agents
Corrosive in contact with metals

Hazardous decomposition products : In case of fire hazardous decomposition products may be produced such as:
Carbon monoxide
Carbon dioxide (CO₂)
Hydrogen fluoride

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : LDLo: 500 mg/kg
Species: rat

Acute inhalation toxicity : LC50: 10 mg/l
Species: rat
: LC50: 13.5 mg/l
Species: mouse

SECTION 12. ECOLOGICAL INFORMATION**Further information on ecology**

Additional ecological information : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods : Observe all Federal, State, and Local Environmental regulations.

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SECTION 14. TRANSPORT INFORMATION

DOT UN/ID No. : UN 2699
Proper shipping name : TRIFLUOROACETIC ACID
Class : 8
Packing group : I
Hazard Labels : 8

IATA UN/ID No. : UN 2699
Description of the goods : TRIFLUOROACETIC ACID
Class : 8
Packaging group : I
Hazard Labels : 8
Packing instruction (cargo aircraft) : 854
Packing instruction (passenger aircraft) : 850

IMDG UN/ID No. : UN 2699
Description of the goods : TRIFLUOROACETIC ACID
Class : 8
Packaging group : I
Hazard Labels : 8
EmS Number : F-A, S-B
Marine pollutant : no

SECTION 15. REGULATORY INFORMATION**Inventories**

US. Toxic Substances : On TSCA Inventory
Control Act

Australia. Industrial : On the inventory, or in compliance with the inventory
Chemical (Notification and
Assessment) Act

Canada. Canadian : All components of this product are on the Canadian DSL.
Environmental Protection
Act (CEPA). Domestic
Substances List (DSL)

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Japan. Kashin-Hou Law List : On the inventory, or in compliance with the inventory

Korea. Toxic Chemical Control Law (TCCL) List : On the inventory, or in compliance with the inventory

Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act : On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances : On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand : On the inventory, or in compliance with the inventory

National 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 : SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards : Acute Health Hazard

California Prop. 65 : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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New Jersey RTK : Trifluoroacetic acid 76-05-1

WHMIS Classification : E: Corrosive Material
This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

SECTION 16. OTHER INFORMATION

	HMIS III	NFPA
Health hazard	: 3	3
Flammability	: 0	0
Physical Hazard	: 0	
Instability	:	0
Special hazard.	:	ACID

Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the use of individuals trained in the particular system.

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user. This information should not constitute a guarantee for any specific product properties.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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Prepared by Honeywell Performance Materials and Technologies Product Stewardship Group