

SAFETY DATA SHEET

TMC-56



Revision Date: May 1, 2023

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: TMC-56
Identified Uses: Specialty Fluorinated Solvent **FOR INDUSTRIAL USE ONLY. NOT FOR CONSUMER USE.**
Supplier: TMC Industries, Inc.
1423 Mill Lane
Waconia, Minnesota 55387 USA
www.tmcindustries.com
Contact Person: sales@tmcindustries.com
Emergency Contact: CHEMTREC 24-HR EMERGENCY US, Canada, Puerto Rico, US Virgin Islands
800-424-9300

2. HAZARD IDENTIFICATION

This product has no flash point and is non-flammable per OSHA and DOT regulations. TMC-367 does exhibit flammable limits in an estimated range of vapor to air concentration of 6.7% to 18% based on 1,2 trans-dichloroethylene.

Signal Word:	Warning
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Classification:

Skin Irritation	Category 2
Eye Irritation	Category 2
Specific Target Organ Toxicity	Category 3 (narcotic effects)

Hazard Pictorial(s):



Hazard Statements:

H315	Causes skin irritation.
H320	Causes eye irritation.
H336	May cause drowsiness or dizziness.

General & Prevention Precautionary Statements:

P102	Keep out of reach of children.
P103	Read label before use.

P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat/sparks/open flames/hot surfaces–No smoking.
P233	Keep container tightly closed.
P234	Keep only in original container.
P260	Do not breathe mist/vapors.
P262	Do not get in eyes, on skin, or on clothing.
P270	Do not eat, drink or smoke when using this product.
P271	Use in a well-ventilated area.
P280	Wear protective gloves/eye protection/face protection.
P281	Use personal protective equipment as required.
P285	In case of inadequate ventilation wear respiratory protection.

Precautionary Statements:

P308 + P314	IF EXPOSED: Get medical advice/attention if you feel concerned.
P305 + P351 + P338 + P337 + P313	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.
P302 + P361 + P352 + P353 + P363 + P333 + P313	IF ON SKIN: remove immediately all contaminated clothing. Wash with soap and water. Rinse skin with water/shower. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.
P304 + P340 + P342 + P311	IF INHALED: Remove individual to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P301 + P330 + P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P306 + P361 + P363	IF ON CLOTHING: Remove immediately all contaminated clothing. Wash contaminated clothing.

Storage & Disposal:

P403 + P233 + P235 + P404	Store in a well-ventilated place. Keep Cool. Store in a closed container.
P501	Dispose of contents/containers in accordance with all local/regional/national/international regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	% by weight
Proprietary Fluorinated Compound Name withheld as Trade Secret	>99%

4. FIRST AID MEASURES

Inhalation	Move the exposed person to fresh air at once. Perform artificial respiration if breathing has stopped. If breathing is difficult, give oxygen. Get medical attention.
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Ingestion	Compound is not known to be hazardous by ingestion. Do not induce vomiting due to aspiration hazards. Never give liquid to an unconscious person. Get medical attention.
Skin Contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues.
Eye Contact	Immediately flush eyes with plenty of water while lifting the eye lids. Remove contact lenses, if worn. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

5. FIRE FIGHTING MEASURES

Flash Point (° C)	None - ASTM 56 (See Section 9).
Extinguishing Media	Use extinguishing measures appropriate to local circumstances and surroundings such as dry chemical, carbon dioxide, water spray mist, foam.
Unsuitable Extinguishing Media	None.
Hazardous Combustion Products	Containers may rupture under high heat conditions. Hydrogen fluoride, carbon monoxide and carbon dioxide.
Special Fire Fighting Procedures	Avoid breathing fire vapors. Keep run-off water out of sewers and water sources. Dike for water control.
Protective Equipment	Self-contained breathing apparatus (SCBA) and full protective clothing must be worn in case of fire.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Wear protective clothing as described in Section 8 of this SDS. Ensure adequate ventilation.
Environmental Precautions	Do not discharge into drains, water courses or onto the ground. Contain spillages with sand, earth or any suitable adsorbent material.
Spill Clean Up Methods	Provide ventilation and confine spill. Do not allow runoff to sewer. Dam and absorb spillage with sand, sawdust or other absorbent. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.
Reference to other Sections	Personal protection, see Sec. 8. Waste disposal, see Sec. 13.

7. HANDLING AND STORAGE

Handling	Avoid spilling, skin and eye contact. Avoid inhalation of vapors and spray mists. Use with sufficient ventilation. Do not allow contact with open flame. Vapor reduces available oxygen for breathing and is heavier than air.
Storage	Store in tightly closed original container in a dry, cool and well-ventilated place at room temperature. Avoid storing in direct sunlight. Do not store near heat, sparks or flame.

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

Exposure Limits	Proprietary Fluorinated Solvent - In all cases, worker exposure to all chemicals, including this product, should be kept as low as possible. No OSHA PEL has been published for this product. 50 ppm workplace exposure limit per manufacturers' recommendation (8 hr TWA).
Engineering Controls	Normal ventilation for standard manufacturing procedures is generally adequate. Local exhaust should be used when large amounts are released. Vapors are heavier than air. Use with adequate ventilation to prevent vapor buildup in low lying areas.
Process Conditions	Provide eyewash, quick drench.
Respiratory Equipment	Suitable respiratory protection should be provided. Self-contained breathing apparatus is required if a large spill occurs.
Hand Protection	Always use Viton or other impermeable gloves for long term protection. Nitrile gloves are acceptable only for splash protection.
Eye Protection	Wear approved safety/chemical tight goggles. Full face mask recommended. Use proper protective clothing.
Hygiene Measures	When using do not eat, drink or smoke. Wear apron or protective clothing in case of splashes.
Skin Protection	Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly with soap & water if skin becomes contaminated.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Color	Liquid, Colorless
Boiling Point	134° F - 56.2° C
Relative Density	1.47 @ 25° C
Viscosity	0.65 cPs
Flash Point	None. ASTM 56
LEL/UEL	NONE (reported by manufacturer)
Vapor Pressure	31 kPa @ 25° C

10. STABILITY AND REACTIVITY

Stability	Stable under normal temperature conditions and recommended use.
Conditions to Avoid	Avoid flames and other heat sources. Will decompose when exposed to extreme elevated temperatures.
Materials to Avoid	Strong oxidizing substances. Incompatible with alkali or alkaline earth metals-powdered Al, Zn, Be, etc.
Hazardous Decomposition Products	Thermal decomposition or combustion may liberate hydrogen fluoride, carbon monoxide and carbon dioxide.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity	>2,000 mg/kg
Oral LD50 (rat):	>24.8 mg/L (3,010 ppm)
Inhalation LC ₅₀ (rat)	>2,000 mg/kg
Dermal LD ₅₀ (rat)	Slight irritation to eye and mucous membranes
Skin and eye irritation	Slight irritation to eye and mucous membranes
Skin irritation (rabbit)	None
Eye irritation (rabbit)	Slight
Sensitization: Skin (rat)	None
Ames Assay	Negative (OECD 471 & 472)
Chromosomal Aberration Test	Negative (CHL Cell) (OECD 473)
Repeated Dose Oral Toxicity (28 Day)	NOEL 1,000 mg/kg/d 1,000 ppm
Repeated Dose Inhalation Toxicity (5 Day)	NOEL 1,800 ppm Rats exposed to 2,500 or 5,000 ppm for 6 hours per day for 5 days showed convulsions.
Repeated Dose Inhalation Toxicity (90 Day)	NOEL 1,000 ppm Rats exposed to 1,000 ppm for 6 hrs/day, 5 days/wk - 90 days. No adverse effects.
Carcinogenicity	IARC: Not Listed. NTP: Not Listed. OSHA: Not Listed.

12. ECOLOGICAL INFORMATION

Biodegradability	Not biodegraded (OECD 301C)
Bioaccumulation	N/D
Activated Sludge Study	>100 mg/L (OECD 209)
Fish Toxicity	LC ₅₀ (96 hr.) (Carp) >76 mg/L
Algal growth inhibition	ErC ₅₀ >213 mg/L EbC ₅₀ >213 mg/L
Mobility inhibition (Daphnia magna)	48hr-EC ₅₀ >94 mg/L

13. DISPOSAL CONSIDERATIONS

Disposal Methods	Dispose of waste and residues in accordance with federal, state and local authority requirements. Confirm disposal procedures with environmental engineer and local regulations. For destruction, use high-temperature incinerator designed to burn fluorine compounds. Do not allow runoff into sewer, waterway or ground. Do not reuse containers.
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14. TRANSPORTATION INFORMATION

Proper Shipping Name	Specialty Solvent. Industrial Use ONLY. Not for Consumer use.
USA DOT	This product is not hazardous for transportation per regulations.
ADR	Not regulated as dangerous goods.
RID	Not regulated as dangerous goods.
IATA	Not regulated as dangerous goods.
IMDDG	Not regulated as dangerous goods.

The above transportation information is valid as of the date of publication of this SDS. Given that regulatory changes are made on an ongoing basis, ETI recommends checking new transportation regulations regularly.

15. REGULATORY INFORMATION

USA SARA 313/312/302	N/A
USA Clean Water Act	Not regulated
USA CERCLA	Not regulated
USA TSCA	Listed in Inventory. Regulated under a SNUR, this material can only be used for the following industrial-use applications: (i) cleaning electronic components; (ii) precision cleaning; (iii) dewatering of electronic components and other parts following aqueous cleaning (iv) carrier/lubricant coating for hard disk drives and other precision parts. This product requires an export notice be filed with the USEPA.
USA SNAP	Acceptable
VOC	VOC exempt
GWP	580 (AR4)
ROHS 3	Complies
International	
CANADA DSL	Listed
EU ELINCS	Not Listed
ENCS	Listed in Inventory
CHINA - IECSC	Listed in Inventory
KOREA - KECI	Does not comply
Philippines PICCS	Does not comply
Mexico INSQ	Listed
Japanese ENCS\ISHL	Listed
Taiwan TCSI	Listed

16. OTHER INFORMATION

Only trained personnel should use this material. Since empty containers retain product residue, follow label warnings, even after container is emptied. Each user of this product should study this SDS carefully and consult appropriate expertise as necessary to become aware of and understand the data contained in this

SDS and any hazards that may be associated with this product. The information provided in this Safety Data Sheet relates only to the specific material designated herein. The user is responsible for determining the conditions of safe use of this product and for complying with all Federal, State and Local governmental laws and regulations concerning its use. TMC Industries, Inc. makes no warranty, express or implied, including the warranty of merchantability and fitness for a particular purpose, and assumes no liability or responsibility for the accuracy, completeness, timeliness or usefulness of this information. TMC Industries, Inc. assumes no liability for any damages incurred, whether directly or indirectly, as a result of any errors, omissions or discrepancies in this information. TMC Industries, Inc. assumes no liability for reliance on this data and assumes no liability for damages related to the use or misuse of this product.

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