Tel: 514-956-7503
Fax: 514-956-7504
Internet: www.megs.ca
E-mail:
support@megs.ca

Montreal	St-Laurent	Tel : 514-956-7503	Fax : 514-956-7504
Ottawa	Nepean	Tel : 613-226-4228	Fax : 613-226-4229
Quebec	Quebec	Tel : 418-834-7447	Fax : 418-834-3774

ACRYLONITRILE- MATERIAL SAFETY DATA SHEET

TABLE OF CONTENTS:

24 Hour EMERGENCY CONTACT

U.S- CHEMTREC 1-800-424-9300

CANADA- CANUTEC 613-996-6666

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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Matheson Tri-Gas, Inc.

The telephone numbers listed below are emergency numbers, please contact your local branch for routine inquiries.

USA	CANADA
959 Route 46 East	530 Watson Street
Parsippany, New Jersey	Whitby, Ontario
07054-0624 USA	L1N 5R9 Canada
Phone: 973-257-1100	**Phone:** 905-668-3570

SUBSTANCE: ACRYLONITRILE

SYMBOL: C_3H_3NO

TRADE NAMES/SYNONYMS:
2-PROPENENITRILE; PROPENENITRILE; VINYL CYANIDE; CYANOETHYLENE; ACRYLONITRILE; AN; VCN; ACRYLON; CARBACRYL; VENTOX; FUMIGRAIN; STCC 4906420; RCRA U009; ENT 54; UN 1093; MAT00370; RTECS AT5250000

CHEMICAL FAMILY: nitriles, aliphatic

CREATION DATE: Jan 24 1989
REVISION DATE: Mar 16 1999

2. COMPOSITION, INFORMATION ON INGREDIENTS

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COMPONENT: ACRYLONITRILE, INHIBITED

CAS NUMBER: 107-13-1

EC NUMBER (EINECS): 203-466-5

PERCENTAGE: >99

COMPONENT: METHYLHYDROQUINONE

CAS NUMBER: 95-71-6

EC NUMBER: 202-443-7

PERCENTAGE: <0.1

3. HAZARDS IDENTIFICATION

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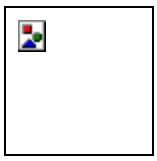
NFPA RATINGS (SCALE 0-4): HEALTH=4 FIRE=3 REACTIVITY=2

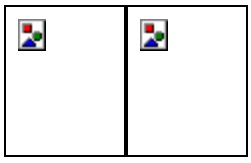


WHMIS CLASSIFICATION: BD1

EC CLASSIFICATION (ASSIGNED):
F Highly Flammable
T Toxic
Xi Irritant
Carcinogen Category 2

R 11-23/24/25-38-45

EC Classification may be inconsistent with independently-researched data.



EMERGENCY OVERVIEW:
Color: colorless

Physical Form: liquid

Odor: pungent odor

Major Health Hazards: harmful (if inhaled, on contact with the skin, or swallowed), eye burns, respiratory tract irritation, skin irritation, allergic reactions, cancer hazard (in humans)

Physical Hazards: Flammable liquid and vapor. Vapor may cause flash fire. May polymerize. Containers may rupture or explode.

POTENTIAL HEALTH EFFECTS:

INHALATION:
Short Term Exposure: irritation, itching, nausea, vomiting, diarrhea, stomach pain, irregular heartbeat, headache, drowsiness, dizziness, bluish skin color, suffocation, convulsions, coma
Long Term Exposure: digestive disorders, reproductive effects, cancer

SKIN CONTACT:
Short Term Exposure: irritation (possibly severe), allergic reactions, blisters, suffocation
Long Term Exposure: same as effects reported in short term exposure

EYE CONTACT:
Short Term Exposure: burns, tearing, eye damage
Long Term Exposure: same as effects reported in short term exposure

INGESTION:
Short Term Exposure: suffocation
Long Term Exposure: reproductive effects, cancer

CARCINOGEN STATUS:
OSHA: Y
NTP: Y
IARC: Y

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4. FIRST AID MEASURES

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INHALATION:
When safe to enter area, remove from exposure. Use a bag valve mask or similar device to perform artificial respiration (rescue breathing) if needed. Get medical attention immediately.

SKIN CONTACT:
Remove contaminated clothing, jewelry, and shoes immediately. Wash with soap or mild detergent and large amounts of water until no evidence of chemical remains (at least 15-20 minutes). Get medical attention, if needed.

EYE CONTACT:
Wash eyes immediately with large amounts of water, occasionally lifting upper and lower lids, until no evidence of chemical remains. Continue irrigating with normal saline until ready to transport to hospital. Cover with sterile bandages. Get medical attention immediately.

INGESTION:
Contact local poison control center or physician immediately. Never make an unconscious person vomit or drink fluids. When vomiting occurs, keep head lower than hips to help prevent aspiration. If person is unconscious, turn head to side. Get medical attention immediately.

ANTIDOTE:
amyl nitrite, inhalation; sodium nitrite, intravenous; sodium thiosulfate, infusion; oxygen.

NOTE TO PHYSICIAN:
Consider amyl nitrite inhalation, 1 ampoule (0.2 mL) every 5 minutes, and oxygen. For ingestion, consider gastric lavage. Consider oxygen.

5. FIRE FIGHTING MEASURES

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FIRE AND EXPLOSION HAZARDS:
Severe fire hazard. Moderate explosion hazard. Vapor/air mixtures are explosive. May explode when heated. The vapor is heavier than air. Vapors or gases may ignite at distant ignition sources and flash back.

EXTINGUISHING MEDIA:
regular dry chemical, carbon dioxide, water, regular foam, alcohol resistant foam

Large fires: Use regular foam or flood with fine water spray.

FIRE FIGHTING:
Do not get water inside container. Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks. For fires in cargo or storage area: Cool containers with water from unmanned hose holder or monitor nozzles until well after fire is out. If this is impossible then take the following precautions: Keep unnecessary people away, isolate hazard area and deny entry. Let the fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. For tank, rail car or tank truck, evacuation radius: 800 meters (1/2 mile). Water may be ineffective.

FLASH POINT:
30.0 F (-1.1 C) (CC)

LOWER FLAMMABLE LIMIT:
3%

UPPER FLAMMABLE LIMIT:
17%

AUTOIGNITION:
898 F (481 C)

FLAMMABILITY CLASS (OSHA):
IA

6. ACCIDENTAL RELEASE MEASURES

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WATER RELEASE:
Subject to California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65).

Keep out of water supplies and sewers.

OCCUPATIONAL RELEASE:
Avoid heat, flames, sparks and other sources of ignition. Do not touch spilled material. Stop leak if possible without personal risk. Reduce vapors with water spray. Small spills: Flood with water. Large spills: Dike for later disposal. Remove sources of ignition. Keep unnecessary people away, isolate hazard area and deny entry. Reportable Quantity (RQ): Notify Local Emergency Planning Committee and State Emergency Response Commission for release greater than or equal to RQ (U.S. SARA Section 304). If release occurs in the U.S. and is reportable under CERCLA Section 103, notify the National Response Center at (800)424-8802 (USA) or (202)426-2675 (USA).

7. HANDLING AND STORAGE

Up to Table of Contents

Store and handle in accordance with all current regulations and standards. Notify State Emergency Response Commission for storage or use at amounts greater than or equal to the TPQ (U.S. EPA SARA Section 302). SARA Section 303 requires facilities storing a material with a TPQ to participate in local emergency response planning (U.S. EPA 40 CFR 355.30). Protect from physical damage. Store outside or in a detached building. Store with flammable liquids. Keep separated from incompatible substances. Monitor inhibitor content. Secure to prevent tipping. Use diking sufficient to contain total contents plus 10%. Keep separated from incompatible substances.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

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EXPOSURE LIMITS:
ACRYLONITRILE, INHIBITED:
ACRYLONITRILE:
2 ppm OSHA TWA
10 ppm OSHA ceiling 15 minute(s)
2 ppm (4.3 mg/m3) ACGIH TWA (skin)
1 ppm NIOSH recommended TWA 8 hour(s)
10 ppm NIOSH recommended ceiling 15 minute(s) (skin)

VENTILATION: Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits.

EYE PROTECTION: Wear splash resistant safety goggles with a faceshield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

CLOTHING: Wear appropriate chemical resistant clothing.

GLOVES: Wear appropriate chemical resistant gloves. OSHA REGULATED SUBSTANCES: U.S. OSHA 29 CFR 1910.1045.

RESPIRATOR: The following respirators and maximum use concentrations are drawn from NIOSH and/or OSHA.
20 ppm
Any chemical cartridge respirator with a full facepiece and organic vapor cartridge(s).
Any supplied-air respirator with a full facepiece.
100 ppm
Any chemical cartridge respirator with a full facepiece and organic vapor cartridge(s).
Any supplied-air respirator with a full facepiece.
Any self-contained breathing apparatus with a full facepiece.
4000 ppm

Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode.
For Unknown Concentrations or Immediately Dangerous to Life or Health -
Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply.
Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.
Escape -
Any chemical cartridge respirator with a full facepiece and organic vapor cartridge(s).
Any self-contained breathing apparatus.

9. PHYSICAL AND CHEMICAL PROPERTIES

Up to Table of Contents

PHYSICAL STATE: liquid

COLOR: colorless

ODOR: pungent odor

MOLECULAR WEIGHT: 53.06

MOLECULAR FORMULA: C3-H3-N

BOILING POINT: 172-174 F (78-79 C)

FREEZING POINT: -119 to -117 F (-84 to -83 C)

VAPOR PRESSURE: 83 mmHg @ 20 C

VAPOR DENSITY (air=1): 1.83

SPECIFIC GRAVITY (water=1): 0.8060

WATER SOLUBILITY: 7.35%

PH: Not available

VOLATILITY: 100%

ODOR THRESHOLD: 13-19 ppm

EVAPORATION RATE: 4.5 (butyl acetate=1)

VISCOSITY: 0.34 cP @ 25 C

COEFFICIENT OF WATER/OIL DISTRIBUTION: Not available

SOLVENT SOLUBILITY:
Soluble: alcohol, ether, acetone, benzene, toluene, carbon tetrachloride, organic solvents

10. STABILITY AND REACTIVITY

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REACTIVITY:
May polymerize violently or explosively. May explode if heated in closed container.

CONDITIONS TO AVOID:
Avoid heat, flames, sparks and other sources of ignition. Containers may rupture or explode if exposed to heat. Minimize contact with material. Keep out of water supplies and sewers.

INCOMPATIBILITIES:
acids, metals, amines, bases, halogens, peroxides, combustible materials, oxidizing materials

HAZARDOUS DECOMPOSITION:
Thermal decomposition products: cyanide compounds

POLYMERIZATION:
May polymerize violently or explosively. Avoid contact with curing agents, accelerators, and/or initiators.

11. TOXICOLOGICAL INFORMATION

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ACRYLONITRILE, INHIBITED:

IRRITATION DATA:
500 mg skin-human; 500 mg skin-rabbit severe; 100 mg eyes-rabbit moderate

TOXICITY DATA:
425 ppm/4 hour(s) inhalation-rat LC50; 63 mg/kg skin-rabbit LD50; 78 mg/kg oral-rat LD50

CARCINOGEN STATUS:
OSHA: Carcinogen; NTP: Anticipated Human Carcinogen; IARC: Human Limited Evidence, Animal Sufficient Evidence, Group 2A; ACGIH: A2 -Suspected Human Carcinogen

LOCAL EFFECTS:
Irritant: inhalation, skin
Corrosive: eye

ACUTE TOXICITY LEVEL:
Highly Toxic: dermal absorption
Toxic: inhalation, ingestion

TARGET ORGANS:
blood, immune system (sensitizer)

TUMORIGENIC DATA:
Available.

MUTAGENIC DATA:
Available.

REPRODUCTIVE EFFECTS DATA:
Available.

ADDITIONAL DATA:
Solvents may enhance the toxic effects.

12. ECOLOGICAL INFORMATION

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ECOTOXICITY DATA:

FISH TOXICITY:
9300 ug/L 96 hour(s) LC50 (Mortality) Bluegill (Lepomis macrochirus)

INVERTEBRATE TOXICITY:
10950 ug/L 48 hour(s) EC50 (Immobilization) Water flea (Daphnia magna)

FATE AND TRANSPORT:

BIOCONCENTRATION:
48 ug/L 1-28 hour(s) BCF (Residue) Bluegill (Lepomis macrochirus) 9.94 ug/L

13. DISPOSAL CONSIDERATIONS

Up to Table of Contents

Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): U009. Dispose in accordance with all applicable regulations.

14. TRANSPORT INFORMATION

Up to Table of Contents

U.S. DOT 49 CFR 172.101. SHIPPING NAME-UN NUMBER; HAZARD CLASS; PACKING GROUP; LABEL:
Acrylonitrile, inhibited-UN1093; 3; I; Flammable liquid; Poison

15. REGULATORY INFORMATION

Up to Table of Contents

U.S. REGULATIONS:
TSCA INVENTORY STATUS: Y

TSCA 12(b) EXPORT NOTIFICATION: Not listed.

CERCLA SECTION 103 (40CFR302.4): Y
Acrylonitrile: 100 LBS RQ

SARA SECTION 302 (40CFR355.30): Y
Acrylonitrile: 10000 LBS TPQ

SARA SECTION 304 (40CFR355.40): Y
Acrylonitrile: 100 LBS RQ

SARA SECTION 313 (40CFR372.65): Y
Acrylonitrile

SARA HAZARD CATEGORIES, SARA SECTIONS 311/312 (40CFR370.21):
ACUTE: Y
CHRONIC: Y
FIRE: Y
REACTIVE: Y
SUDDEN RELEASE: N

OSHA PROCESS SAFETY (29CFR1910.119): N

STATE REGULATIONS:
California Proposition 65: Y
Known to the state of California to cause the following:
Acrylonitrile
Cancer (Jul 01, 1987)

EUROPEAN REGULATIONS:

EC NUMBER (EINECS): 203-466-5

EC RISK AND SAFETY PHRASES:

R 11	Highly flammable.
R 23/24/25	Toxic by inhalation, in contact with skin and if swallowed.
R 38	Irritating to skin.
R 45	May cause cancer.
S 45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S 53	Avoid exposure - obtain special instructions before use.

CONCENTRATION LIMITS:
C>=20% T R 45-23/24/25-38
1%<=C<20% T R 45-23/24/25
0.2%<=C<1% T R 45-20/21/22
0.1%<=C<0.2% T R 45

16. OTHER INFORMATION

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