



Safety Data Sheet

Revision Date: 10/28/14

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1. IDENTIFICATION

Catalog Number / Product Name:	31669, 31669-5XX, & 31769 / 2,4,6-Trinitrotoluene Standard
Company:	Restek Corporation
Address:	110 Benner Circle Bellefonte, Pa. 16823
Phone#:	814-353-1300
Fax#:	814-353-1309
Emergency#:	1-800-424-9300 (CHEMTREC) +1 703-741-5970 (Outside the US)
Email:	sds@restek.com
Revision Number:	10
Intended use:	For Laboratory use only

2. HAZARD(S) IDENTIFICATION

Emergency Overview:

GHS Hazard Symbols:



GHS Classification:

Flammable Liquid Category 2
Acute Toxicity - Inhalation Dust / Mist Category 4
Acute Toxicity - Inhalation Vapour Category 4
Acute Toxicity - Inhalation Gas Category 4
Acute Toxicity - Dermal Category 4
Acute Toxicity - Oral Category 4

GHS Signal Word:

Danger

GHS Hazard:

Highly flammable liquid and vapour.
Harmful if swallowed, in contact with skin or if inhaled.
Harmful if inhaled.

GHS Precautions:

Safety Precautions:

Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
Keep container tightly closed.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilation and lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Avoid breathing dust/fume/gas/mist/vapours/spray.
Wash hands and skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.

First Aid Measures:

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
IF ON SKIN: Wash with plenty of soap and water.
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.
Call a POISON CENTER or doctor/physician if you feel unwell.
Specific measures see section 4.
Rinse mouth.
Wash contaminated clothing before reuse.

In case of fire: Use extinguishing media in section 5 for extinction.

Storage: Keep container tightly closed.
Store in a well-ventilated place. Keep cool.

Disposal: Dispose of contents/container according to section 13 of the SDS.

Single Exposure Target Organs: No data available.

Repeated Exposure Target Organs: No data available.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS #	EINEC #	% Composition
acetonitrile	75-05-8	200-835-2	99.900000
2,4,6-trinitrotoluene	118-96-7	204-289-6	0.100000

4. FIRST-AID MEASURES

Inhalation: Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen.

Eyes: Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.

Skin Contact: Wash with soap and water. Remove contaminated clothing, launder immediately, and discard contaminated leather goods. Get medical attention immediately.

Ingestion: Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this SDS.

5. FIRE- FIGHTING MEASURES

Extinguishing Media: Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water may be ineffective but water spray can be used to extinguish a fire if swept across the base of the flames. Water can absorb heat and keep exposed material from being damaged by fire.

Fire and/or Explosion Hazards: Vapors may be ignited by heat, sparks, flames or other sources of ignition at or above the low flash point giving rise to a fire (Class B). Vapors are heavier than air and may travel to a source of ignition and flash back.

Fire Fighting Methods and Protection: Do not enter fire area without proper protection including self- contained breathing apparatus and full protective equipment. Use methods for the surrounding fire.

Hazardous Combustion Products: Carbon dioxide, Carbon monoxide

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Equipment: Exposure to the spilled material may be severely irritating or highly toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.

Methods for Clean-up: Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

7. HANDLING AND STORAGE

Handling Technical Measures and Precautions: Highly toxic or corrosive material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use

Storage Technical Measures and Conditions:

spark-proof tools and explosion-proof equipment
Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**United States:**

Chemical Name	CAS No.	IDLH	ACGIH STEL	ACGIH TLV-TWA	OSHA Exposure Limit
acetonitrile	75-05-8	500 ppm IDLH		20 ppm TWA	40 ppm TWA; 70 mg/m3 TWA
2,4,6-trinitrotoluene	118-96-7	ND		0.1 mg/m3 TWA	1.5 mg/m3 TWA

Personal Protection:**Engineering Measures:**

Local exhaust ventilation is recommended when generating excessive levels of vapors from handling or thermal processing.

Respiratory Protection:

Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms.

Eye Protection:

Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.

Skin Protection:

Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work

Medical Conditions Aggravated By Exposure: Liver disease

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance, color:	No data available.
Odor:	Mild
Physical State:	No data available.
pH:	No data available
Vapor Density:	1.4 (air = 1)
Melting Point:	-43.82 °C
Flash Point:	43
Flammability:	Highly Flammable
Upper Flammable/Explosive Limit, % in air:	16.0
Lower Flammable/Explosive Limit, % in air:	4.4
Autoignition Temperature:	No data available. deg C
Decomposition Temperature:	No data available.
Specific Gravity:	0.7857 g/cm3 at 20 °C
Evaporation Rate:	No data available.
Odor Threshold:	No data available.
Solubility:	Not determined
Partition Coefficient: n-octanol in water:	No data available.
VOC % by weight:	0.00
Molecular Weight:	No data available.

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	No data available.
Materials to Avoid / Chemical Incompatibility:	Strong oxidizing agents

11. TOXICOLOGICAL INFORMATION

Routes of Entry:	Inhalation Contact Absorption Ingestion
Target Organs Potentially Affected By Exposure:	Liver, Cardiovascular System, Central nervous system stimulation, Respiratory Tract
Chemical Interactions That Change Toxicity:	None Known

Immediate (Acute) Health Effects by Route of Exposure:

Inhalation Irritation:	Causes respiratory tract irritation
Inhalation Toxicity:	Harmful! Can cause systemic damage (see "Target Organs")Inhalation of high concentrations may result in central nervous system (CNS) effects such as dizziness, weakness, fatigue, nausea, headache, and lack of coordination.
Skin Contact:	Causes skin irritation.
Skin Absorption:	Harmful if absorbed through the skin.

Eye Contact: Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue. Can cause irritation.

Ingestion Irritation: Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea. Ingestion may cause transient irritation of throat, stomach and gastrointestinal tract.

Ingestion Toxicity: Harmful if swallowed. May cause systemic poisoning.

Long-Term (Chronic) Health Effects:

Carcinogenicity: Contains a probable or known human carcinogen.

Reproductive and Developmental Toxicity: No data available to indicate product or any components present at greater than 0.1% may cause birth defects.

Inhalation: Harmful! Can cause systemic damage upon prolonged and/or repeated exposure (see "Target Organs")

Component Toxicological Data:

NIOSH:

Chemical Name	CAS No.	LD50/LC50
Acetonitrile	75-05-8	Inhalation LC50 Rat 7551 ppm 8 h (Source: IUCLID)

Component Carcinogenic Data:

OSHA:

Chemical Name	CAS No.
No data available.	

ACGIH:

Chemical Name	CAS No.	
Acetonitrile	75-05-8	A4 - Not Classifiable as a Human Carcinogen

NIOSH:

Chemical Name	CAS No.
No data available.	

NTP:

Chemical Name	CAS No.
No data available.	

IARC:

Chemical Name	CAS No.	Group No.
No data.		Group 1
No data.		Group 2A
No data.		Group 2B

12. ECOLOGICAL INFORMATION

Overview: Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.

Mobility: No data

Persistence: No data

Bioaccumulation: No data

Degradability: No data

Ecological Toxicity Data: No data available.

13. DISPOSAL CONSIDERATIONS

Waste Description of Spent Product: Spent or discarded material is a hazardous waste.

Disposal Methods: Dispose of by incineration following Federal, State, Local, or Provincial regulations.

Waste Disposal of Packaging: Comply with all Local, State, Federal, and Provincial Environmental Regulations.

14. TRANSPORTATION INFORMATION

United States:

DOT Proper Shipping Name: Flammable liquids, n.o.s. (Acetonitrile)
EX2008120022 (Second Revision)

UN Number: UN1993

Hazard Class: 3

Packing Group: II
International:
IATA Proper Shipping Name: Flammable liquids, n.o.s. (Acetonitrile)
 EX2008120022 (Second Revision)
UN Number: UN1993
Hazard Class: 3
Packing Group: II
Marine Pollutant: No

15. REGULATORY INFORMATION

United States:

Chemical Name	CAS#	CERCLA	SARA 313	SARA EHS 313	TSCA
acetonitrile	75-05-8	X	X	-	X
2,4,6-trinitrotoluene	118-96-7	-	-	-	X

The following chemicals are listed on CA Prop 65:

Chemical Name	CAS #	Regulation
2,4,6-Trinitrotoluene	118-96-7	Prop 65 Cancer

State Right To Know Listing:

Chemical Name	CAS#	New Jersey	Massachusetts	Pennsylvania	California
acetonitrile	75-05-8	X	X	X	X
2,4,6-trinitrotoluene	118-96-7	X	X	X	X

16. OTHER INFORMATION

Prior Version Date: 01/27/14

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