

Safety Data Sheet 2221104 according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Date of issue: 05/31/2016 Version: 1.0

SECTION 1: Identification	
1.1. Identification	
Product form	: Substance
Substance name	: trans-Cyclopropane-1,2,3-tricarboxylic acid
CAS No	: 705-35-1
Product code	: 2221-1-04
Formula	: C6H6O6
Other means of identification	: MFCD10703501
1.2. Relevant identified uses of the sub	stance or mixture and uses advised against
Use of the substance/mixture	: Laboratory chemicals Manufacture of substances Scientific research and development
1.3. Details of the supplier of the safety	data sheet
SynQuest Laboratories, Inc.	
P.O. Box 309 Alachua, FL 32615 - United States of America T (386) 462-0788 - F (386) 462-7097	~
info@synquestlabs.com - www.synquestlabs.co	<u>""</u>
1.4. Emergency telephone number Emergency number Emergency number	: (844) 523-4086 (3E Company - Account 10069)
Emergency number	. (644) 525-4060 (SE Company - Account 10069)
SECTION 2: Hazard(s) identification	
2.1. Classification of the substance or r	nixture
Classification (GHS-US)	
Skin Irrit. 2 H315 - Causes skin irritation Eye Irrit. 2A H319 - Causes serious eye irrita STOT SE 3 H335 - May cause respiratory ir Full text of H-phrases: see section 16 2.2. Label elements	
GHS-US labeling Hazard pictograms (GHS-US)	GHS07
Signal word (GHS-US)	: Warning
Hazard statements (GHS-US)	 H315 - Causes skin irritation H319 - Causes serious eye irritation H335 - May cause respiratory irritation
Precautionary statements (GHS-US)	 P261 - Avoid breathing dust, mist, spray P264 - Wash skin thoroughly after handling P271 - Use only outdoors or in a well-ventilated area P280 - Wear protective gloves/protective clothing/eye protection/face protection P302+P352 - If on skin: Wash with plenty of soap and water P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P312 - Call a POISON CENTER or doctor/physician if you feel unwell P321 - Specific treatment (see supplemental first aid instructions on this label) P332+P313 - If skin irritation occurs: Get medical advice/attention P362+P364 - Take off contaminated clothing and wash it before reuse P403+P233 - Store in a well-ventilated place. Keep container tightly closed P405 - Store locked up P501 - Dispose of contents/container to an approved waste disposal plant

Safety Data Sheet according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

2.3. Other hazards		
No additional information available		
2.4. Unknown acute toxicity (GHS US		
Not applicable		
SECTION 3: Composition/informa	ion on ingredients	
3.1. Substance		
Substance type	: Mono-constituent	
Name	Product identifier % Classification (GF	IS-US)
trans-Cyclopropane-1,2,3-tricarboxylic acid (Main constituent)	(CAS No) 705-35-1 <= 100 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335	
Full text of H-phrases: see section 16		
3.2. Mixture		
Not applicable		
SECTION 4: First aid measures		
4.1. Description of first aid measures		
First-aid measures general	: In case of accident or if you feel unwell, seek medical advice immediately (show th where possible). Move the affected personnel away from the contaminated area.	e label
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. If not breathing, gi respiration. Get medical advice/attention.	ve artificial
First-aid measures after skin contact	: Wash with plenty of soap and water. Get medical advice/attention.	
First-aid measures after eye contact	: Immediately flush eyes thoroughly with water for at least 15 minutes. Remove cont present and easy to do. Continue rinsing. Get medical advice/attention.	
First-aid measures after ingestion	: Do NOT induce vomiting. Never give anything by mouth to an unconscious person mouth out with water. Get medical advice/attention.	. Rinse
4.2. Most important symptoms and e	and the second	
Symptoms/injuries	 tects, both acute and delayed The most important known symptoms and effects are described in the labelling (se 	e section
Symptoms/injuries 4.3. Indication of any immediate med		e section
Symptoms/injuries 4.3. Indication of any immediate med Treat symptomatically. SECTION 5: Firefighting measures	: The most important known symptoms and effects are described in the labelling (se 2.2) and/or in section 11. cal attention and special treatment needed	e section
Symptoms/injuries 4.3. Indication of any immediate med Treat symptomatically. SECTION 5: Firefighting measures 5.1. Extinguishing media	: The most important known symptoms and effects are described in the labelling (se 2.2) and/or in section 11.	
Symptoms/injuries 4.3. Indication of any immediate med Treat symptomatically. SECTION 5: Firefighting measures	: The most important known symptoms and effects are described in the labelling (se 2.2) and/or in section 11. cal attention and special treatment needed	
Symptoms/injuries 4.3. Indication of any immediate med Treat symptomatically. SECTION 5: Firefighting measures 5.1. Extinguishing media Suitable extinguishing media 5.2. Special hazards arising from the	 The most important known symptoms and effects are described in the labelling (se 2.2) and/or in section 11. cal attention and special treatment needed Alcohol resistant foam. Carbon dioxide. Dry powder. Water spray. Use extinguishir appropriate for surrounding fire. substance or mixture 	
Symptoms/injuries 4.3. Indication of any immediate med Treat symptomatically. SECTION 5: Firefighting measures 5.1. Extinguishing media Suitable extinguishing media	 The most important known symptoms and effects are described in the labelling (se 2.2) and/or in section 11. cal attention and special treatment needed Alcohol resistant foam. Carbon dioxide. Dry powder. Water spray. Use extinguishir appropriate for surrounding fire. 	
Symptoms/injuries 4.3. Indication of any immediate med Treat symptomatically. SECTION 5: Firefighting measures 5.1. Extinguishing media Suitable extinguishing media 5.2. Special hazards arising from the	 The most important known symptoms and effects are described in the labelling (se 2.2) and/or in section 11. cal attention and special treatment needed Alcohol resistant foam. Carbon dioxide. Dry powder. Water spray. Use extinguishir appropriate for surrounding fire. substance or mixture 	
Symptoms/injuries 4.3. Indication of any immediate med Treat symptomatically. SECTION 5: Firefighting measures 5.1. Extinguishing media Suitable extinguishing media 5.2. Special hazards arising from the Fire hazard	 The most important known symptoms and effects are described in the labelling (se 2.2) and/or in section 11. cal attention and special treatment needed Alcohol resistant foam. Carbon dioxide. Dry powder. Water spray. Use extinguishir appropriate for surrounding fire. substance or mixture 	ng media eathing
Symptoms/injuries 4.3. Indication of any immediate med Treat symptomatically. SECTION 5: Firefighting measures 5.1. Extinguishing media Suitable extinguishing media 5.2. Special hazards arising from the Fire hazard 5.3. Advice for firefighters Firefighting instructions	 The most important known symptoms and effects are described in the labelling (se 2.2) and/or in section 11. cal attention and special treatment needed Alcohol resistant foam. Carbon dioxide. Dry powder. Water spray. Use extinguishin appropriate for surrounding fire. substance or mixture Thermal decomposition generates: Carbon oxides. In case of fire: Evacuate area. Wear gas tight chemically protective clothing in combination with self contained bre apparatus. For further information refer to section 8: "Exposure controls/personal personal persona	ng media eathing
Symptoms/injuries 4.3. Indication of any immediate med Treat symptomatically. SECTION 5: Firefighting measures 5.1. Extinguishing media Suitable extinguishing media 5.2. Special hazards arising from the Fire hazard 5.3. Advice for firefighters Firefighting instructions Protection during firefighting SECTION 6: Accidental release measures	 The most important known symptoms and effects are described in the labelling (se 2.2) and/or in section 11. cal attention and special treatment needed Alcohol resistant foam. Carbon dioxide. Dry powder. Water spray. Use extinguishin appropriate for surrounding fire. substance or mixture Thermal decomposition generates: Carbon oxides. In case of fire: Evacuate area. Wear gas tight chemically protective clothing in combination with self contained bre apparatus. For further information refer to section 8: "Exposure controls/personal personal persona	ng media eathing
Symptoms/injuries 4.3. Indication of any immediate med Treat symptomatically. SECTION 5: Firefighting measures 5.1. Extinguishing media Suitable extinguishing media Suitable extinguishing media 5.2. Special hazards arising from the Fire hazard 5.3. Advice for firefighters Firefighting instructions Protection during firefighting SECTION 6: Accidental release med 6.1. Personal precautions, protective General measures	 The most important known symptoms and effects are described in the labelling (se 2.2) and/or in section 11. cal attention and special treatment needed Alcohol resistant foam. Carbon dioxide. Dry powder. Water spray. Use extinguishin appropriate for surrounding fire. substance or mixture Thermal decomposition generates: Carbon oxides. In case of fire: Evacuate area. Wear gas tight chemically protective clothing in combination with self contained bre apparatus. For further information refer to section 8: "Exposure controls/personal peasures 	ng media eathing rotection".
Symptoms/injuries 4.3. Indication of any immediate med Treat symptomatically. SECTION 5: Firefighting measures 5.1. Extinguishing media Suitable extinguishing media 5.2. Special hazards arising from the Fire hazard 5.3. Advice for firefighters Firefighting instructions Protection during firefighting SECTION 6: Accidental release media 6.1.	 The most important known symptoms and effects are described in the labelling (se 2.2) and/or in section 11. cal attention and special treatment needed Alcohol resistant foam. Carbon dioxide. Dry powder. Water spray. Use extinguishin appropriate for surrounding fire. substance or mixture Thermal decomposition generates: Carbon oxides. In case of fire: Evacuate area. Wear gas tight chemically protective clothing in combination with self contained bre apparatus. For further information refer to section 8: "Exposure controls/personal personal pers	ng media eathing rotection". dust.
Symptoms/injuries 4.3. Indication of any immediate med Treat symptomatically. SECTION 5: Firefighting measures 5.1. Extinguishing media Suitable extinguishing media Suitable extinguishing media 5.2. Special hazards arising from the Fire hazard 5.3. Advice for firefighters Firefighting instructions Protection during firefighting SECTION 6: Accidental release med 6.1. Personal precautions, protective General measures 6.1.1. For non-emergency personnel	 The most important known symptoms and effects are described in the labelling (se 2.2) and/or in section 11. cal attention and special treatment needed Alcohol resistant foam. Carbon dioxide. Dry powder. Water spray. Use extinguishir appropriate for surrounding fire. substance or mixture Thermal decomposition generates: Carbon oxides. In case of fire: Evacuate area. Wear gas tight chemically protective clothing in combination with self contained bre apparatus. For further information refer to section 8: "Exposure controls/personal persuances Evacuate unnecessary personnel. Ensure adequate air ventilation. Do not breather 	ng media eathing rotection". dust. e.
Symptoms/injuries 4.3. Indication of any immediate med Treat symptomatically. SECTION 5: Firefighting measures 5.1. Extinguishing media Suitable extinguishing media Suitable extinguishing media 5.2. Special hazards arising from the Fire hazard 5.3. Advice for firefighters Firefighting instructions Protection during firefighting SECTION 6: Accidental release med 6.1. Personal precautions, protective General measures 6.1.1. For non-emergency personnel Emergency procedures 6.1.2. For emergency responders Protective equipment 6.2. Environmental precautions	 The most important known symptoms and effects are described in the labelling (se 2.2) and/or in section 11. cal attention and special treatment needed Alcohol resistant foam. Carbon dioxide. Dry powder. Water spray. Use extinguishin appropriate for surrounding fire. substance or mixture Thermal decomposition generates: Carbon oxides. In case of fire: Evacuate area. Wear gas tight chemically protective clothing in combination with self contained bre apparatus. For further information refer to section 8: "Exposure controls/personal persures Evacuate unnecessary personnel. Ensure adequate air ventilation. Do not breathe Only qualified personnel equipped with suitable protective equipment may interven Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal prefer to section 8: "Exposure controls breather information in the set of the set o	ng media eathing rotection". dust. e.
Symptoms/injuries 4.3. Indication of any immediate med Treat symptomatically. SECTION 5: Firefighting measures 5.1. Extinguishing media Suitable extinguishing media Suitable extinguishing media 5.2. Special hazards arising from the Fire hazard 5.3. Advice for firefighters Firefighting instructions Protection during firefighting SECTION 6: Accidental release med 6.1. Personal precautions, protective General measures 6.1.1. For non-emergency personnel Emergency procedures 6.1.2. For emergency responders Protective equipment 6.2. Environmental precautions	 The most important known symptoms and effects are described in the labelling (see 2.2) and/or in section 11. cal attention and special treatment needed Alcohol resistant foam. Carbon dioxide. Dry powder. Water spray. Use extinguishin appropriate for surrounding fire. substance or mixture Thermal decomposition generates: Carbon oxides. In case of fire: Evacuate area. Wear gas tight chemically protective clothing in combination with self contained bre apparatus. For further information refer to section 8: "Exposure controls/personal persures Evacuate unnecessary personnel. Ensure adequate air ventilation. Do not breathe Only qualified personnel equipped with suitable protective equipment may interven Do not attempt to take action without suitable protective equipment. For further information 	ng media eathing rotection". dust. e.
Symptoms/injuries 4.3. Indication of any immediate med Treat symptomatically. SECTION 5: Firefighting measures 5.1. Extinguishing media Suitable extinguishing media Suitable extinguishing media 5.2. Special hazards arising from the Fire hazard 5.3. Advice for firefighters Firefighting instructions Protection during firefighting SECTION 6: Accidental release med 6.1. Personal precautions, protective General measures 6.1.1. For non-emergency personnel Emergency procedures 6.1.2. For emergency responders Protective equipment 6.2. Environmental precautions	 The most important known symptoms and effects are described in the labelling (se 2.2) and/or in section 11. cal attention and special treatment needed Alcohol resistant foam. Carbon dioxide. Dry powder. Water spray. Use extinguishin appropriate for surrounding fire. substance or mixture Thermal decomposition generates: Carbon oxides. In case of fire: Evacuate area. Wear gas tight chemically protective clothing in combination with self contained bre apparatus. For further information refer to section 8: "Exposure controls/personal personnel equipment and emergency procedures Evacuate unnecessary personnel. Ensure adequate air ventilation. Do not breathe Only qualified personnel equipped with suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". 	ng media eathing rotection". dust. e.
Symptoms/injuries 4.3. Indication of any immediate med Treat symptomatically. SECTION 5: Firefighting measures 5.1. Extinguishing media Suitable extinguishing media Suitable extinguishing media 5.2. Special hazards arising from the Fire hazard 5.3. Advice for firefighters Firefighting instructions Protection during firefighting SECTION 6: Accidental release med 6.1. Personal precautions, protective General measures 6.1.1. For non-emergency personnel Emergency procedures 6.1.2. For emergency responders Protective equipment 6.2. Environmental precautions Avoid release to the environment. Notify auth	 The most important known symptoms and effects are described in the labelling (se 2.2) and/or in section 11. cal attention and special treatment needed Alcohol resistant foam. Carbon dioxide. Dry powder. Water spray. Use extinguishin appropriate for surrounding fire. substance or mixture Thermal decomposition generates: Carbon oxides. In case of fire: Evacuate area. Wear gas tight chemically protective clothing in combination with self contained bre apparatus. For further information refer to section 8: "Exposure controls/personal personnel equipment and emergency procedures Evacuate unnecessary personnel. Ensure adequate air ventilation. Do not breathe Only qualified personnel equipped with suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". 	ng media eathing rotection". dust. e.

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Methods for cleaning up	: Sweep or shovel spills into appropriate container for disposal. Minimize generation of dust.
Other information	: For disposal of solid materials or residues refer to section 13 : "Disposal considerations".
6.4. Reference to other sections	
No additional information available	
SECTION 7: Handling and sto	rage
7.1. Precautions for safe handlin	ng
Precautions for safe handling	Do not handle until all safety precautions have been read and understood. Ensure good ventilation of the work station. Do not breathe dust, mist, spray. Wear personal protective equipment. Avoid contact with skin and eyes.
Hygiene measures	: Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
7.2. Conditions for safe storage,	including any incompatibilities
Technical measures	: Comply with applicable regulations.
Storage conditions	: Keep container closed when not in use.
Incompatible materials	: Refer to Section 10 on Incompatible Materials.
-	

Storage area : Store in dry, cool, well-ventilated area.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls	
Appropriate engineering controls	: Ensure good ventilation of the work station. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
Hand protection	: Protective gloves. 29 CFR 1910.138: Hand Protection.
Eye protection	: Chemical goggles or safety glasses. Face shield. 29 CFR 1910.133: Eye and Face Protection.
Skin and body protection	: Wear suitable protective clothing.
Respiratory protection	: In case of inadequate ventilation wear respiratory protection. 29 CFR 1910.134: Respiratory Protection.
Other information	: Safety shoes. 29 CFR 1910.136: Foot Protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical an	Id chemical properties
Physical state	: Solid
Color	: No data available
Odor	: No data available
Odor threshold	: No data available
рН	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Vapor pressure	: No data available
Relative density	: No data available
Relative vapor density at 20 °C	: No data available
Molecular mass	: 174.11 g/mol
Solubility	: No data available
Log Pow	: No data available

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

according to Federal Register / Vol. 77, No. 58 / N	Monday, March 26, 2012 / Rules and Regulations
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
9.2. Other information	
No additional information available	
SECTION 10: Stability and reac	tivity
10.1. Reactivity	
No additional information available	
10.2. Chemical stability	
The product is stable at normal handling a	and storage conditions.
10.3. Possibility of hazardous reac	tions
No additional information available	
10.4. Conditions to avoid	
Keep away from heat, sparks and flame.	
10.5. Incompatible materials	
Strong oxidizing agents.	
10.6. Hazardous decomposition pr	oducts
Under normal conditions of storage and u fire, see Section 5.	ise, hazardous decomposition products should not be produced. Hazardous decomposition products in case of
SECTION 11: Toxicological info	brmation
11.1. Information on toxicological	effects
Acute toxicity	: Not classified
Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

Specific target organ toxicity (single exposure)	: May cause respiratory irritation.
Specific target organ toxicity (repeated exposure)	: Not classified

Aspiration hazard

Reproductive toxicity

: Not classified

: Not classified

SECTION 12: Ecological information		
12.1.	Toxicity	
No additi	ional information available	
12.2.	Persistence and degradability	
No additi	ional information available	
12.3.	Bioaccumulative potential	
No additi	ional information available	
12.4.	Mobility in soil	
No additi	ional information available	
12.5.	Other adverse effects	
No additional information available		

12/06/2016

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 13: Disposal considera	itions
13.1. Waste treatment methods	
Waste treatment methods	: Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber.
Waste disposal recommendations	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Additional information	: Recycle the material as far as possible.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT Not regulated for transport

TDG

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory except for:

	trans-Cyclopropane-1,2,3-tricarboxylic acid	CAS No 705-35-1	100%
--	---	-----------------	------

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

15.2. International regulations

CANADA

No additional information available

EU-Regulations No additional information available

National regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm

SECTION 16: Other information

Full text of H-phrases:

Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

NFPA health hazard	: 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.
NFPA fire hazard	: 0 - Materials that will not burn.
NFPA reactivity	: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.
HMIS III Rating	
Health	: 2 Moderate Hazard - Temporary or minor injury may occur
Flammability	: 0 Minimal Hazard - Materials that will not burn
Physical	: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

SDS US (GHS HazCom 2012)

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is offered solely for your consideration, investigation, and verification. It does not represent any guarantee of the properties of the product nor that the hazard precautions or procedures described are the only ones which exist. SynQuest shall not be held liable or any damage resulting from handling or from contact with the above product.