Safety Data Sheet

3-Cyanopropyltrichlorosilane

Section 1. Identification

Product Identifier	3-Cyanopropyltrichlorosilane
Synonyms	N/A
Manufacturer Stock Numbers	C3555
Recommended use	N/A
Uses advised against	N/A

Manufacturer Contact

Address

UCT Specialties, Inc
2731 Bartram Road
Bristol, PENNSYLVANIA, 19007
US

Phone	Emergency Phone	Fax
(215) 781-9255	(800) 424-9300 Chemtrec CHEMTREC Emergency Contact International - 703-527-3887	N/A

Email	Website
manastasio@unitedchem.com	www.unitedchem.com

Section 2. Hazards Identification

Classification	N/A
Signal Word	Danger
Pictogram	
Hazard Statements	Causes serious eye damage Toxic if inhaled Toxic if swallowed

	Toxic in contact with skin
Precautionary Statements	
Response	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If inhaled: Remove person to fresh air and keep comfortable for breathing. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If swallowed: Immediately call a poison center/doctor
Prevention	Do not allow contact with water.
Storage	N/A
Disposal	N/A
General	If medical advice is needed, have product container or label at hand Read label before use
Ingredients of unknown toxicity	0%
Hazards not Otherwise Classified	
Acute Toxicity	Liquid and vapors react with moisture on the skin, eyes and mucous membranes to release a substance that is corrosive.
Medical Conditions Aggravated	Perclude from exposure those individuals having a history of respiratory illness or pre-exisiting eye or skin conditions.
Acute Toxicity	Prolonged or repeated exposure and/or high concentrations of vapors will produce chemical burns and destruction of affected tissues. Respirable vapors or mist are irritating to the upper respiratory tract and bronchi. Inhalation may be fatal as a result of spasm, inflammation and edema of the lungs and larynx. Prolonged or widespread contact may result in the absorption of a potentially harmful amount of material. If ingested, this material may cause severe burns of the mouth, pharynx, esophagus and stomach.

Section 3. Ingredients

CAS	Ingredient Name	Weight %
1071-22-3	3-Cyanopropyltrichlorosilane	Unknown

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First-Aid Measures

General	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area
Eye	Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.
Skin	Scrub with soap and water. Remove contaminated clothing and shoes.
Ingestion	Get medical attention
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Comments	If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.

Section 5. Fire Fighting Measures

Suitable Extinguishing Media	CO_2, foam, dry chemical As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. After fire has been extinguished with non-aqueous media, it may be easily reignited. Make sure this does not occur Warning: Use only dry media to extinguish flames. Water spray and fog should only be used to knock down hydrogen chloride vapors in areas downwind from fire.
Unsuitable Extinguishing Media	N/A

Section 6. Accidental Release Measures

General Procedure	Absorb spill material with suitable chemical binder. Shovel absorbent into suitable waste container. Do not wash into sewer or soil, groundwater or surface water.
Spill.	Evacuate spill area of non-essential personnel. Ventilate the spill area. Avoid breathing vapor. Wear appropriate personal protective equipment.
Special Protective Equipment	Wear appropriate personal protective equipment as specified in section 8.

Section 7. Handling and Storage

Handling	Container requires grounding during use
Storage	Store in a cool dry place. Store in a well ventilated place. Purge container with nitrogen before resealing. Ground all equipment containing material. Keep container closed when not in use.
Storage.	Store in a cool and dry place. Store in a tightly sealed container. Protect from heat, direct sunlight and source of ignition. Store away from acidic, alkaline and oxidizing materials. Provide adequate ventilation.

Section 8. Exposure Controls/Personal Protection

Occupational Exposure Limits	Ingredient Name	ACGIH TLV	OSHA PEL	STEL
	3-Cyanopropyltrichlorosilane	N/A	N/A	N/A
Personal Protective Equipment	Goggles, Gloves			
Engineering Controls	Facilities storing or utilizing this material should be equipped with an eyewash station and a safety shower. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.			
Eyes and Face	Use chemical goggles and face shield			
Skin	Use impervious gloves. Use impervious clothing as necessary to protect against skin contact			
Respiratory	Local exhaust required. Mechanical ventilation required. In case of exposure, use appropriate NIOSH approved respiratory protection			
Work Hygenic Practices	General industrial hygiene practice			
Comments	To identify additional Personal Protective Equipment (PPE) requirements, it is recommended that a hazard assessment, in accordance with the OSHA PPE Standard (29 CFR 1910.132), be conducted before using this product.			

Section 9. Physical and Chemical Properties

Physical State	Liquid
Color	Clear
Odor	Sharp
Odor Threshold	N/A
Solubility	Reacts
Partition coefficient Water/n-octanol	N/A
VOC%	N/A
Viscosity	N/A
Specific Gravity	1.28
Density lbs/Gal	N/A
Pounds per Cubic Foot	N/A
Flash Point	72C/162F
FP Method	closed cup
Ph	N/A
Melting Point	N/A
Boiling Point	93C / 7mm
Boiling Range	N/A
LEL	N/A
UEL	N/A
Evaporation Rate	N/A
Flammability	N/A
Decomposition Temperature	N/A
Auto-ignition Temperature	N/A
Vapor Pressure	N/A
Vapor Density	>1

Section 10. Stability and Reactivity

Stability	(Under Normal Conditions) Stable under ordinary conditions of use and storage
Polymerization	Hazardous ploymerization will not occur
Conditions to Avoid	Contact with oxidizing agents, acid and alkali. Contact with water or alcohols. Exposure to heat, sparks or other sources of ignition
Possibility of Hazardous Reactions	Acoid contact with lewis acids such as iron trichloride or aluminum trichloride unless under carefully controlled reaction conditions and allow for the generation of gaseous products
Comments	DANGER: Polymerization is accompanied by generation of large amounts of hydrogen chloride gas (corrosive) that may result in a violent release of pressure and heat if reaction occurs in a confined space.

Section 11. Toxicological Information

Carcinogenicity	IARC: No NTP: No OSHA: No
Additional Information	Material generates Hydrogen chloride on contact with water and moist air. Hydrochloric acid (aqueous): Toxicity Data: ihl-hmn LCLo: 1300ppm/30mins; unk-man LDLo: 81 mg/kg; ihl-rat LC50: 3124ppm/1hour; ih;-mus LC50: 1180ppm/1hour; ihl-man LCLo: 1000 mg/,3/2 hour; orl-rbt LD50: 900mg/kg Hydrogen chloride (gas): Toxicity Data: ihl-rat LC50: 5660ppm/30mins; ihl-mus LC50: 2142ppm/30mins

Section 12. Ecological Information

Environmental Data	No information available

Section 13. Disposal

Method	Incinerate. Follow all federal, state and local regulations
Empty Container	Containers of this material may be hazardous when empty since they retain product residues (liquids). Observe all warnings and precautions listed for this product.
Comments	It is recommended that waste generators determine whether a discarded chemical is classified as a hazardous waste. Additionally, waste generators must consult with their waste broker and state and local hazardous waste regulations to insure complete and accurate classification. Although not la listed RCRA hazardous waste, this material may exhibit one or more characteristics of a hazardous waste and require appropriate analysis to determine specific disposal requirements. US EPA guidelines for classification determination are listed on 40CFR Parts 261.3

Section 14. Transport Information

UN Number	2987
UN Proper Shipping Name	Chlorosilanes N.O.S.
DOT Classification	8
Packing Group	II
Additional Information	NAERG: 60 Label Corrosive

Section 15. Regulatory Information

TSCA	United States TSCA (Toxic Substance Control Act) Status: This product is listed on the TSCA inventory

Section 16. Other Information

Revision Date	2/15/2016
Manufacturer Disclaimer	The data in this Safety Data Sheet relates only to the specific material designated herein. It does not relate to use in combination with any other material or in any process.
Manufacturer Supplemental Notes	All technical data is believed to be correct but does not purport to be all inclusive and shall be used only as a guide.
Statement	THE INFORMATION AND RECOMMENDATIONS CONTAINED IN THIS SAFETY DATA SHEET HAVE BEEN COMPILED FROM SOURCES BELIEVED TO BE RELIABLE AND TO REPRESENT THE BEST OPINION ON THE SUBJECT AS OF THE DATE ON THIS SHEET. HOWEVER, NO WARRENTY, GUARENTEE OR REPRESENTATION, EXPRESSED OR IMPLIED, IS MADE BY UCT, INC. AS TO THE CORRECTNESS OR SUFFICIENCY OF THIS INFORMATION OR TO THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.
Additional Information	HMIS Rating Health - 3 Flammable - 2 Physical Hazard - 1 NFPA Codes Health Hazard - 3 Flammable Hazard - 2 Reactivity - 1