

Technical Information
Material Safety Data Sheet

SDT-21_03E

SECTION 1		CHEMICAL PRODUCT AND COMPANY IDENTIFICATION	
MANUFACTURE'S NAME GASTEC CORPORATION	TELEPHONE NUMBER +81-467-79-3910	FACSIMILE NUMBER +81-467-79-3979	
ADDRESS 6431 Fukaya, Ayase-City, Kanagawa 252-1103, Japan			
REFERENCE NUMBER SDT-21_03E		DATE PREPARED October 4, 2005	
PRODUCT NAME	Gas Detector Tube Carbonyl Sulfide Detector Tube No.21		
SECTION 2		COMPOSITION/INFORMATION ON INGREDIENTS	
Pretreatment Tube: Porous Silica Gel (0.4g) impregnated with Sulfuric Acid (<10-20%) and Copper(II) sulfate pentahydrate(<1%) in a glass tube. Detector Tube: Porous Silica Gel (0.2g) impregnated with Barium Compounds (<5%) in a glass tube.			
SECTION 3		HAZARDOUS IDENTIFICATION	
Not applicable			
SECTION 4		FIRST AID MEASURES	
Eye contact:	Wash eyes immediately with plenty of water for at least 15 minutes and see a doctor.		
Skin contact:	Wash affected area immediately with soap and plenty of water.		
Inhalation:	Not applicable		
Ingestion:	Rinse mouth immediately and see a doctor.		
SECTION 5		FIRE FIGHTING MEASURES	
None			
SECTION 6		ACCIDENTAL RELEASE MEASURES	
Not applicable			
SECTION 7		HANDLING AND STORAGE	
When breaking off the tube ends, keep away from eyes. Broken glass tubes should not be picked up with bare hands. Tubes should be stored in a refrigerator.			
SECTION 8		EXPOSURE PROTECTION	
Not applicable			
SECTION 9		PHYSICAL AND CHEMICAL PROPERTIES	
Barium Compounds, Sulfuric Acid:			
Flash point:	Not available		
Autoignition point:	Not available		

SECTION 10 STABILITY AND REACTIVITY

Barium compounds:

Stability:	Stable.
Reactivity:	Contact with acid or heat to form toxic hydrogen chloride. React with sulfate to form water-insoluble Barium Sulfate.
Condition to avoid:	Sunlight, Heat
Hazardous decomposition product:	Carbon monoxide, barium compounds or halides may be formed.

Sulfuric acid:

Stability:	Stable. Absorb moisture powerfully from the air.
Reactivity:	React violently with water to evolve heat and may spatter. Bite into metals and concrete caused by oxidation. Carbonize to flammable organic materials.
Condition to avoid:	Sunlight, Heat, Moisture
Material to avoid:	Organic materials, Reducing agents, Metals
Hazardous decomposition product:	Sulfur oxides may be formed

SECTION 11 TOXICOLOGICAL INFORMATION

Barium compounds

Acute toxicity data:	LD50: (orl, rat): 118mg/kg (RTECS) LDLo: (iv, rat): 20mg/kg (RTECS) LD50: (orl, mouse): 150mg/kg (RTECS) LD50: (ip, mouse): 56.2mg/kg (RTECS) LD50: (iv, mouse): 21mg/kg (RTECS) LD50: (orl, rabbit): 236mg/kg (RTECS) LDLo: (skn, rabbit): 96mg/kg (RTECS) LDLo: (iv, rabbit): 12mg/kg (RTECS)
Irritation data:	Not available
Chronic toxicity / Long-term toxicity:	Barium ion irritate to all muscles continuously may cause aberrant muscle contraction or cardiac arrest also cause vomiting, diarrhea and irritate to spinal chord.
Mutagenicity:	Not available
Carcinogen:	Not available

Sulfuric acid:

Acute toxicity data:	LD50 (orl, rat): 2140mg/kg LC50 (ihl, cavy): 18mg/m ³
Irritation data:	Eye; rabbit; 1380 μ g; severe
Mutagenicity:	Not available
Carcinogen:	Not available

SECTION 12 ECOLOGICAL INFORMATION

Not applicable

SECTION 13 DISPOSAL CONSIDERATION

This tube does not contain any hazardous materials.
Dispose of in accordance with all applicable laws and regulations.
(Contact local environmental agency for specific rules.)

SECTION 14 TRANSPORT INFORMATION

Breakage of tubes caused by drops, high pressure or bends should be avoided.

SECTION 15 REGULATORY INFORMATION

Not applicable

SECTION 16**OTHER INFORMATION**

No specific notes