

Technical Information
Material Safety Data Sheet

SDT-31B_06E

SECTION 1		CHEMICAL PRODUCT AND COMPANY IDENTIFICATION	
MANUFACTURE'S NAME	TELEPHONE NUMBER	FACSIMILE NUMBER	
GASTEC CORPORATION	+81-467-79-3910	+81-467-79-3979	
ADDRESS			
8-8-6 Fukayanaka, Ayase-City, Kanagawa 252-1195, Japan			
REFERENCE NUMBER		DATE PREPARED	
SDT-31B_06E		June 18, 2008	
PRODUCT NAME	Gas Detector Tube Oxygen Detector Tube No. 31B		
SECTION 2		COMPOSITION/INFORMATION ON INGREDIENTS	
Porous Silica Gel (2.4g) impregnated with Titanium trichloride (20-25%) and Copper Sulfate (10-15%) 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 cool and dark place.			
SECTION 8		EXPOSURE PROTECTION	
Not applicable			
SECTION 9		PHYSICAL AND CHEMICAL PROPERTIES	
Titanium trichloride, Copper sulfate:			
Flash point:	Not available		
Autoignition point:	Not available		

SECTION 10 STABILITY AND REACTIVITY

Titanium trichloride:

Stability: Strong reduction and oxidize to quadrivalent. Unstable gradually decomposed in normal temperature.

Reactivity: Oxidize violently in the atmosphere and generate white smoke.

Condition to avoid: Sunlight, Heat, Air, Water

Hazardous decomposition product: Halide may be formed.

Copper sulfate:

Stability: Stable. (Gradually decomposed in dry air.)

Reactivity: Not available

Condition to avoid: Sunlight, Heat

Hazardous decomposition product: Copper fumes, sulfur dioxide and sulfur oxide may be formed.

SECTION 11 TOXICOLOGICAL INFORMATION

Titanium trichloride:

Acute toxicity data: TDLo (itt, rat): 12341 μ g/kg (RTECS)
LD50 (orl, rat): 130mg/kg
LD50 (skn, rat): >2000mg/kg

Irritation data: Skin; corrosive

Mutagenicity: Not available

Copper sulfate:

Acute toxicity data: TDLo (orl, human): 272mg/kg
LDLo (orl, human): 1088mg/kg (RTECS)
LD50 (orl, rat): 300mg/kg
LD50 (sc, rat): >2mg/kg (RTECS)
LD50 (ip, rat): 18.7mg/kg
LD50 (orl, mouse): 33mg/kg (RTECS)

Irritation data: Not available

Mutagenicity: Not available

Carcinogen: Not available

SECTION 12 ECOLOGICAL INFORMATION

Titanium trichloride, Copper sulfate:

Not available

SECTION 13 DISPOSAL CONSIDERATION

This tube contains toxic titanium trichloride. Titanium trichloride reacts with the oxygen in air, and turns into harmless titanium oxide promptly. Unused or unreacted black tube should be used with the same measurement procedure and dispose after checking the whole layer is turned white. 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

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use.

