

**Technical Information**  
**Material Safety Data Sheet**

SDT-1CO\_03E

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**SECTION 1** **CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

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<b>MANUFACTURE'S NAME</b> GASTEC CORPORATION	<b>TELEPHONE NUMBER</b> +81-467-79-3910	<b>FACSIMILE NUMBER</b> +81-467-79-3979
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**ADDRESS**  
8-8-6 Fukayanaka, Ayase-City, Kanagawa 252-1195, Japan

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<b>REFERENCE NUMBER</b> SDT-1CO_03E	<b>DATE PREPARED</b> January 10, 2014
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<b>PRODUCT NAME</b>	Gas Detector Tube Carbon Monoxide Detector Tube No.1CO
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**SECTION 2** **COMPOSITION/INFORMATION ON INGREDIENTS**

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Porous Silica Gel (0.8 g) impregnated with Fuming Sulfuric Acid (30-35%), Chromic Anhydride (<1%) and Selenium compound (< 0.1%) in a glass tube.

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**SECTION 3** **HAZARDOUS IDENTIFICATION**

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Not applicable

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**SECTION 4** **FIRST AID MEASURES**

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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.

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**SECTION 5** **FIRE FIGHTING MEASURES**

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None

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**SECTION 6** **ACCIDENTAL RELEASE MEASURES**

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Not applicable

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**SECTION 7** **HANDLING AND STORAGE**

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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.

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**SECTION 8** **EXPOSURE PROTECTION**

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Not applicable

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**SECTION 9** **PHYSICAL AND CHEMICAL PROPERTIES**

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Selenium compound, Fuming sulfuric acid, Chromic anhydride:

Flash point:	Not available
Autoignition point:	Not available

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**SECTION 10 STABILITY AND REACTIVITY**

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Selenium compound:	
Stability:	Highly hygroscopic. Toxic fume is emitted when heated extremely.
Reactivity:	Not available
Condition to avoid:	Sunlight, Heat, Moisture
Hazardous decomposition product:	Selenium fume may be formed.
Chromic anhydride:	
Stability:	Stable.
Reactivity:	Strong oxidizers. Contact with organic agents or metal powder may cause expose by heat or shock. Contact with organic agents may cause fire.
Condition to avoid:	Sunlight, Heat
Hazardous decomposition product:	Not available
Fuming sulfuric acid:	
Stability:	White smoke poisonous gas (sulfur trioxide) is emitted in air.
Reactivity:	React violently with water to evolve heat. Diluted sulfuric acid reacts with metals such as iron to form flammable hydrogen gas may cause fire and explosion. May cause ignition in contact with organic materials.
Condition to avoid:	Sunlight, Heat, Moisture
Hazardous decomposition product:	Sulfur oxides may be formed

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**SECTION 11 TOXICOLOGICAL INFORMATION**

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Selenium compound:	
Acute toxicity data:	LD50 (skn, rabbit): 4mg/kg (RTECS) LCLo (ihl, rat): 60mg/m <sup>3</sup> (RTECS) LD50 (orl, rat): 68100 $\mu$ g/kg (RTECS) LD50 (orl, mouse): 23300 $\mu$ g/kg (RTECS)
Irritation data:	Not available
Chronic toxicity/ Long-term toxicity:	Repetition or long term skin contact may cause dermatitides.
Mutagenicity:	Not available
Carcinogen:	Not available
Chromic anhydride:	
Acute toxicity data:	LD50 (ip, rat): 58400 $\mu$ g/kg (RTECS) LD50 (iv, rat): 9260 $\mu$ g/kg (RTECS) LD50 (orl, mouse): 127mg/kg (RTECS) LD50 (ip, mouse): 14mg/kg (RTECS) LDLo (sc, mouse): 20mg/kg (RTECS) LD50 (iv, mouse): 17100 $\mu$ g/kg (RTECS)
Irritation data:	Not available
Mutagenicity:	Not available
Carcinogen:	as Hexavalent chromium; NTP: K (Prospective human carcinogen) IARC: Group 1 (Human carcinogen) ACGIH: A1 (Known to be carcinogen) Japan Society for Occupational Health: Group 1 (Human carcinogen)
Fuming sulfuric acid:	
Acute toxicity data:	LC50 (ihl, rat): 347ppm/1H (RTECS)
Irritation data:	as Sulfuric acid; Eye; rabbit; 250 $\mu$ g; severe (RTECS)
Mutagenicity:	Not available
Carcinogen:	IARC: Human carcinogen (Group 1) ACGIH: as Sulfuric acid; Suspected human carcinogen (A2)

<b>SECTION 12</b>	<b>ECOLOGICAL INFORMATION</b> Not available
<b>SECTION 13</b>	<b>DISPOSAL CONSIDERATION</b> This tube contains 2.60mg of Hexavalent Chromium and 0.51mg of Selenium. Dispose of in accordance with all applicable laws and regulations. (Contact local environmental agency for specific rules.)
<b>SECTION 14</b>	<b>TRANSPORT INFORMATION</b> Breakage of tubes caused by drops, high pressure or bends should be avoided.
<b>SECTION 15</b>	<b>REGULATORY INFORMATION</b> Not applicable
<b>SECTION 16</b>	<b>OTHER INFORMATION</b> 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.