

SAFETY DATA SHEET

Manufacturer			Company	GASTEC CORPORATION	
information		Address	8-8-6 Fukayanaka, Ayase-city, Kanagawa 252-1195, Japan		
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SDS ID	SDS_121_03		Issue date	31/May/2022	
Product name		Benzene Detector Tube No.121			
Hazards identification		This detector tube, when based on GHS and JIS Z 7252(2019), is corresponded to an article. Under normal use conditions, emits only a small amount of chemical substances, for example, trace amounts of chemical substances, and can be handled as not showing physical and chemical hazards or health hazards to operators. Therefore, this product does not fall under the GHS classification standard.			
Composition and information on ingredients		A product made by impregnating alminium oxide($<10\%$) and porous silica gels($<10\%$) with oleum($<5\%$), sulfuric acid($<5\%$) and chromium(VI) oxide($<0.1\%$), and sealing them in glass tubes.			
First-aid measures		Eyes: If the filler enters the eye, immediately flush with plenty of water for at least 15 minutes and see a doctor. Skin: If the filler comes into contact with the skin, immediately wash with soapy water and flush with plenty of water. Inhalation: Not applicable. Ingestion: If the filler is swallowed, rinse the mouth immediately and see a doctor.			
Fire fighting measures		No special measures are needed.			
Accidental release measures		If the detector tube is broken, wear appropriate protective equipment to prevent the filler from adhering to or inhaling the skin or eyes.			
Handling and storage		Handling	detector tube is	When the ends of the detector tube are broken off to prevent injury, the detector tube is moved away from the eye. Do not touch with bare hands any cuts, fittings, or fillers in the event of breakage of the detector tube.	
		Storage	Store in a cold/o	dark place	
Exposure control and protection measures		Not applicable.			
Physical and chemical properties		Appearance: A glass tube filled with reagents and sealed at both ends. Flash point: Not applicable. Ignition point: Not applicable.			
Stability and reactivity		Stability: Not applicable. Reactivity: Not applicable. Conditions to avoid: Direct sunlight, high temperature, freezing should be avoided. Hazardous decomposition products: Not applicable.			
Toxicological information		Filled material is made by adsorbing a small amount of chemicals to alminium oxide and porous silica gels, and there is no hazard information for this. The following describes the hazards to humans of the chemicals and carries as a pure sobstance.			
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Alminium oxide:

Acute toxicity:

Oral — rat LD50:> 5,000 mg/kg (IUCLID,2000)

Dermal—no data

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Inhalation(dust,mist)—no data
                                          Porous silica gel:
                                           Acute toxicity:
                                             Oral – rat LD50: > 3,160 mg/kg (EPA pesticide,1991),
                                                            > 3,300 \text{ mg/kg}, > 2,000 \text{ mg/kg}, > 5,000 \text{ mg/kg},
                                                        > 5,110 mg/kg (ECETOC JACC,2006)(SIDS,2006)
                                             Dermal—rabbit LD50 :> 2,000 mg/kg, > 5,000 mg/kg
                                                                     (ECETOC JACC ,2006) (SIDS ,2006)
                                             Inhalation(dust,mist)—ratLC50(4-h exposure):
                                                         >0.691 \text{ mg/L}, > 2.22 \text{ mg/L},
                                                               0.09~0.84 mg/L, 1.65 mg/L (ECETOC JACC,2006)
                                                              >2.08 mg/L (ECETOC JACC,2006)(SIDS,2006)
                                          Oleum:
                                           Acute toxicity:
                                             Oral-no data
                                              Dermal - no data
                                             Inhalation(dust,mist) — ratInhalationLC50: 347ppm/1H
                                                                          (= 86.7 \text{ppm}/4\text{H} = 0.63 \text{ mg/L}/4\text{H})
                                                                              (assuming mist) (RTECS, 1995)
                                          Sulfuric acid:
                                           Acute toxicity:
                                             Oral - rat LD50: 2140mg/kg(SIDS,2001)
                                             Dermal-no data
                                             Inhalation(dust,mist)—ratLC50(4-h exposure): 0.375mg/L(SIDS,2001)
                                          Chromium(VI) oxide:
                                           Acute toxicity:
                                             Oral—rat LD50:52-113mg/kg (EU-RAR,2005)
                                             Dermal—rabbit LD50:30mg Cr (VI) /kg (CrO3 equivalent:57.7 mg/kg)
                                                             (CICAD 78,2013/ATSDR, 2012)
                                             Inhalation(dust,mist) — ratLC50(4-h exposure): 0.217mg/L (EU-RAR,2005)
Ecological information
                                          No data
Disposal considerations
                                          This detector tube contains 0.78mg of hexavalent chromium. Should be disposed properly in
                                          accordance with local regulations.
Transport information
                                          Avoid breakage of the detector tube due to dropping, pressurization, bending, etc.
                                          UN number: Not applicable
                                          UN Classification: Not applicable
                                          IATA: Not applicable
                                          Poisonous and Deleterious Substances Control Law: Not applicable
                                          Fire Defense Law: Not applicable
                                          Marine Regulation Information: Not applicable
Japanese regulatory information
                                          Industrial Safety and Health Law: Hazardous substance No. 189, 165-2, 613(Article 57-2)
Other information
                                          References:
                                          Chemical Risk Information Platform (CHRIP): NITE
                                          Safety website in the workplace of the Ministry of Health, Labour and Welfare
                                          This data sheet is provided to businesses that handle hazardous chemical products as reference
                                          information for ensuring safe handling. With reference to this, business operators are
                                          requested to understand that they need to take appropriate measures in accordance with the
                                          actual conditions of individual handling, etc. at their own responsibility, and then use them.
                                          This data sheet is prepared based on JIS Z 7253(2019). The contents of this report have been
                                          prepared based on the latest information as of the date of revision, but if new information is
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Inhalation(vapor) - no data

obtained, it may be added or corrected.

This data sheet is not a guarantee of safety.