SAFETY DATA SHEET

Manufacturer information		Company	GASTEC CORPORATION
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Product name	Benzene Detector Tube No.121L
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	Pretreatment tube: A product made by impregnating porous silica gels(＜10%) with reagent(＜1%), and sealing them in glass tubes. Detector tube: A product made by impregnating alminium oxide(＜5%) 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: 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/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. Alminium oxide:

Acute toxicity:
Oral－rat LD50:> 5,000 mg/kg (IUCLID,2000)
Dermal－no data
Inhalation(vapor)－no data
Inhalation(dust,mist)－no data

Porous silica gel:
Acute toxicity:
Oral－rat LD50:> 3,160 mg/kg (EPA pesticide ,1991),
> 3,300 mg/kg, > 2,000 mg/kg , > 5,000 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 mg/L , > 2.22 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
(= 86.7ppm/4H = 0.63 mg/L/4H)
（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. Pretreatment tube does not contain any hazardous components. 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 obtained, it may be added or corrected.

This data sheet is not a guarantee of safety.