MATERIAL SAFETY DATA SHEET

1. Identification of the product and of the company

Identification of the product Catalogue No.: **235SA**

Product name:

KITAGAWA GAS DETECTOR TUBE **1,1-DICHLOROETHANE 235SA**

Manufacture/supplier identification

Company:

KOMYO RIKAGAKU KOGYO K.K.
1-8-28 SHIMONOGE. TAKATSU-KU. KAWASAKI-CITY. KANAGAWA 213-0006. JAPAN
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2. Chemical identification of ingredients

Pretreat tube1:

Inert porous carrier material impregnated with Chromic anhydride, Fuming-Sulphuric acid and Iodine pentoxide sealed in a glass tube.

CAS NUMBER	INGREDIENTS	mg/Tube	%	SYMBOLS
1333-82-0	Chromic anhydride	24.1	4.8	CrO_3
8014-95-7	Fuming-Sulphuric acid	216.7	43.3	$H_2SO_4 \cdot xSO_3$
12029-98-0	Iodine pentoxide	3.25	0.7	I_2O_5

Pretreat tube2:

Inert porous carrier material impregnated with Phosphoric acid sealed in a glass tube.

CAS NUMBER	INGREDIENTS	mg/Tube	%	SYMBOLS
7664-38-2	Phosphoric acid	112.7	11.3	H_3PO_4

Detector tube:

Inert porous carrier material impregnated with 3, 3'-Dimethylnaphthidine sealed in a glass tube.

CAS NUMBER	INGREDIENTS	mg/Tube	%	SYMBOLS
13138-48-2	3,3'-Dimethylnaphthidine	<0.1	<0.1	$C_{22}H_{20}N_2$

Hazardous information of ingredients

Exposure Limit

Short-term:

N/A- As impregnated on silica gel.

Long-term:

N/A- As impregnated on silica gel.

In our experience, there is no release of these chemicals from the glass tube in normal use.

3. Hazards identification

Hazards identification:

Glass hazard

4. First aid measures (in the case of contact with the contents of a broken tube.)

Skin contact:

Wash affected area with copious amount of water.

Eye contact:

Wash eyes immediately with copious amount of water or normal saline solution Ensure lift eyelids and rinse for at least 15 min. Seek medical attention.

Ingestion:

Seek medical attention immediately.

5. Fire fighting measures

Flash point:

Non-combustible

Extinguishing media:

All known extinguishants can be used.

Special fire fighting Procedures:

None

Unusual fire & Explosion hazards:

Negligible fire hazard when exposed to heat or flame.

6. Accidental release measures

Personal protection:

Do not pick up broken glass with bare hands if the tube is broken. Cover with inert absorbent such as vermiculite. Sweep up and contain for waste disposal.

7. Handling and storage

Handling & use:

Ensure the instructions for use are followed. Safety glasses and gloves should be worn to prevent injury from splintering glass.

Storage:

Keep away from direct sunlight and store at 0-10 degree C.

8. Exposure control/personal protection

Respiratory protection:

Not applicable

Ventilation:

Not applicable

Other protective equipment:

Safety glasses and gloves

9. Physical/Chemical properties

Appearance:

Pretreat tube1:

Olive solid layer sealed in a glass tube.

Pretreat tube2

White solid layer sealed in a glass tube.

Detector tube:

White solid layer sealed in a glass tube.

Boiling point:

Not applicable

Melting point:

Not applicable

Specific gravity (H_2O=1):

Not applicable

Evaporation rate (BuOAc=1):

Not applicable

Solubility in water:

Not applicable

Vapour pressure:

Not applicable

Vapour density:

Not applicable

10. Stability and Reactivity

Stability:

Stable at under ambient temperatures and pressures.

Incompatibilities:

Not applicable

Hazardous decomposition products:

None

Hazardous polymerization:

None

11. Toxicological information

General:

In our experience this products is not harmful to health when correctly used/handled.

Skin contact:

Contents may be irritating to the skin if the tube broken.

Eye contact:

Contents may be irritating to the eyes if the tube broken.

Ingestion:

Glass hazard

12. Ecological information

General:

Do not allow to enter drinking water supplies.

13. Disposal considerations

General:

Ensure the tubes are open at both end. Submerge in Water. Neutralize water if necessary and dispose of as aqueous waste. The glass tubes can then be disposed of as inert "sharps".

14. Transport information

General:

This product does not pose significant risk to health, safety or property.

15. Regulatory information

General:

Not classified hazardous under CHIP2 Regulations as this product consists of a sealed glass tube containing a small amount of chemicals impregnated onto Silica sand.

16. Other information

Details given in this document are believed to be correct at the time of going to press. While proper care has been taken in the preparation of this document, but we cannot guarantee its accuracy or completeness, therefore we disclaim any liability for injury or damage when the product is used for other purposes than it is intended.