

## Safety Data Sheet

Revision no.: 6.00  
Revision date: 28.08.2017

Print date: 28.08.2017

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### 1. Identification of the substance/mixture and of the company/undertaking

**Product identifier:** Smoke Tubes (non-corrosive)  
**Product Code:** D5019708  
D5019709  
(Apply Safety data sheet to the above products)

**Relevant identified uses of the substance or mixture and uses advised against**  
**Uses advised against:** The product is to be used exclusively for the applications named in the directions for use.

#### Details of the supplier of the safety data sheet

**Company name:** UNIPHOS ENVIROTRONIC PVT. LTD.  
**Street:** Readymoney Terrace 167, Dr. Annie Besant Road, Worli  
**Place:** Mumbai 400018, India  
**Telephone:** +91 22 61233500  
**Telefax:** +91 22 24978119  
**Emergency telephone:** +91 22 61233500  
**Email Address:** gasdetection@uniphos-envirotronic.com  
**Website:** <http://www.uniphos-she.com>

### 2. Hazards identification

**Classification of the substance or mixture:**  
**In compliance with EC regulation No. 1272/2008 and its amendments.:**  
Causes skin irritation.  
Causes serious eye irritation  
May cause respiratory irritation.  
(Not applicable for intact detector tubes)

#### Label elements

**Labelling according to Regulation (EC) No 1272/2008**

**Pictogram:**



**GHS-07**

**Signal word:** Warning  
**Hazard statements:** H315 – Causes skin irritation.  
H319 – Causes serious eye irritation  
H335 – May cause respiratory irritation.  
**Precautionary statements: Prevention** P102 – Keep out of reach of children.  
P261 – Avoid breathing smoke  
P262 – Do not get in eyes, on skin, or on clothing.  
**Precautionary statements: Response** P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P314 – Get medical advice/attention if you feel unwell.  
**Other hazards:** No data available.

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### 3. Composition/information on ingredients

#### Mixtures

**Chemical characterization:** Sealed glass tubes, filled with inert porous granules, treated with acetic acid, ethylenediamine

#### Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification	
Index No	GHS classification	
REACH No		
200-580-7	Acetic acid	3 - 4 %
64-19-7	C R10-35	
607-002-00-6	Flam. Liq. 3, Skin Corr. 1A; H226, H314	
01-2119475328-30-XXXX		
203-468-6	1,2-Diaminoethane, ethylenediamine	2 - 3 %
107-15-3	Xn, C R10-21/22-34-42/43	
612-006-00-6	Flam. Liq. 3, Acute Tox. 4, Acute Tox. 4, Skin Corr. 1B, Resp. Sens. 1, Skin Sens. 1; H226, H312, H302, H314, H334, H317	
01-2119480383-37-xxxx		

Full text of Hazard phrases: see section 16.

### 4. First aid measures

#### Description of first aid measures

**After inhalation:** Not applicable for intact detector tubes.  
When indicator material is spilled: Inhalation of vapours: Move to fresh air. If symptoms persist, call a physician.

**After contact with skin:** Not applicable for intact detector tubes.  
When indicator material is spilled: Wash off immediately with plenty of water. Wash off immediately with plenty of water.  
Consult a physician.

**After contact with eyes:** Not applicable for intact detector tubes.  
When indicator material is spilled: Rinse with plenty of water immediately, also under the eyelids, for at least 15 minutes.  
Consult an ophthalmologist immediately.

**After ingestion:** Not applicable for intact detector tubes.  
When indicator material is spilled: Call a physician immediately. If conscious, drink plenty of water.

### 5. Fire-fighting measures

#### Extinguishing media

**Suitable extinguishing media:** The product itself does not burn. Use extinguishing measures that are appropriate to the environment.

**Extinguishing media which must not be used for safety reasons:** None.

**Special hazards arising from the substance or mixture:** None.

**Advice for firefighters:** None.

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### 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures:**

Release not possible if used properly.

**Methods and material for containment and cleaning up:**

When indicator material is spilled: Dilute with water. Soak up the product with absorbent, non-flammable material. Avoid contact of breakage of glass and indicator material. Dispose of as described in section 13.

### 7. Handling and storage

**Precautions for safe handling**

**Advice on safe handling:**

See the specific Instruction for use.

**Advice on protection against fire and explosion:**

No special precautions required.

**Conditions for safe storage, including any incompatibilities**

**Advice on storage compatibility:**

Do not store together with edibles.

**Further information on storage conditions:**

See the specific Instruction for use. Recommended storage temperature: 20°C

### 8. Exposure controls/personal protection

**Control parameters**

**Exposure limits (EH40 / OSHA PEL / ACGIH TLV)**

CAS No.	Chemical name	Category	mg/m <sup>3</sup>	Origin
107-15-3	1,2-Diaminoethane (ethylenediamine)	TWA (8 h)	25	OSHA PEL/ ACGIH
		STEL (15 min)	-	OSHA PEL/ ACGIH
64-19-7	Acetic acid	TWA (8 h)	25	EU / OSHA PEL/ ACGIH
		STEL (15 min)	37	EU / OSHA PEL/ ACGIH

**Additional advice on limit values:**

Release not possible if used properly.

**Exposure controls**

**Protective and hygiene measures:**

Avoid contact with eyes or skin after breaking of the tub tips. Avoid contact of breakage of glass and indicator material. Do not take up glass breaks and content of the tube with bare hands. Wash hands before breaks and at the end of the workday.

**Respiratory protection:**

Not required.

**Hand protection:**

Not required.

When indicator material is spilled: Protective gloves made out of: nitrile rubber, butyl rubber

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**Eye protection:** Not required.  
When indicator material is spilled: Safety glasses

**Skin protection:** Not required.

### 9. Physical and chemical properties

#### Information on basic physical and chemical properties

**Physical state:** Granules inside of both end sealed ampoules.  
**Colour:** 1\*)  
**Odour:** pungent

**Test method**  
pH-Value (at 20 °C): 2\*)

#### Changes in the physical state

Melting point: n.a.  
Boiling point: n.a.  
Flash point: n.a.  
Lower explosion limits: n.a.  
Upper explosion limits: n.a.  
Vapour pressure: n.a.  
Water solubility:  
(at 20 °C) low solubility  
Viscosity / dynamic: n.a.  
Solid content:

**Other information:** 1\*) ampoule 1: grey, ampoule 2: white  
2\*) ampoule 1: weakly basic, ampoule 2: acidic

### 10. Stability and reactivity

**Reactivity:** None if handled correctly in accordance with the instructions for use.  
**Chemical stability:** None under recommended use and storage conditions.  
**Possibility of hazardous reactions:** None if handled correctly in accordance with the instructions for use.  
**Conditions to avoid:** None if handled correctly in accordance with the instructions for use.  
**Incompatible materials:** None if handled correctly in accordance with the instructions for use.  
**Hazardous decomposition products:** No decomposition if stored and applied as directed.  
**Further information:** After the opening of the tube: sensitive to water

### 11. Toxicological information

**Information on toxicological effects**  
**Toxicocinetics, metabolism and distribution:** No data available.

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### Acute toxicity

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	h
64-19-7	Acetic acid				
	Acute oral toxicity	LD50	3310 mg/kg	rats	
	Acute dermal toxicity	LD50	1060 mg/kg	rabbit	
107-15-3	1,2-Diaminoethane, ethylenediamine				
	Acute oral toxicity	LD50	866 mg/kg	rats	
	Acute dermal toxicity	LD50	560 mg/kg	rabbit	

### Irritation and corrosivity:

In the formation of vapours : Vapours may be irritating to eyes, nose, throat, and lungs. May cause skin irritation.

### Sensitising effects:

May cause sensitization by inhalation and skin contact.

## 12. Ecological information

### Toxicity:

No data available.

CAS No	Chemical name				
	Aquatic toxicity	Method	Dose	Species	h
64-19-7	Acetic acid				
	Acute fish toxicity	LC50	75 mg/l	Lepomis macrochirus	96
107-15-3	1,2-Diaminoethane, ethylenediamine				
	Acute fish toxicity	LC50	275 mg/l	Poecilia reticulata	96
	Acute algae toxicity	ErC50	100 mg/l	Chlorella pyrenoidosa	96
	Acute crustacea toxicity	EC50	3 mg/l	Daphnia Magna	48

### Persistence and degradability:

No data available.

### Bioaccumulative potential:

No data available.

### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
107-15-3	1,2-Diaminoethane, ethylenediamine	-2,04

### Results of PBT and vPvB assessment:

The product does not contain any substance which meets the PBT criteria (persistent/bio-accumulative/toxic) or the vPvB criteria (very persistent/very bio-accumulative).

### Other adverse effects:

No data available.

### Further information:

When indicator material is spilled: Should not be released into the environment. Do not flush into surface water or sanitary sewer system.

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### 13. Disposal considerations

#### Waste treatment methods

**Recommendation Waste disposal  
number of waste from residues/unused  
products:**

150202  
WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS,  
FILTER MATERIALS AND PROTECTIVE CLOTHING NOT  
OTHERWISE SPECIFIED; absorbents, filter materials, wiping  
cloths and protective clothing; absorbents, filter materials  
(including oil filters not otherwise specified), wiping cloths,  
protective clothing contaminated by dangerous substances

- 1) Tubes no longer generating smoke require no special treatment prior to disposal.
- 2) Do not dispose of used smoke tubes until they no longer produce smoke otherwise place the tubes in water with baking soda to neutralize any acidity of the reagent.
- 3) Take precautions to prevent the contents from entering creeks, rain water run-off, sewers or water supplies.
- 4) Follow all local, state and federal laws and regulations regarding waste

**Recommendation Waste disposal  
number of contaminated packaging:**

150101  
WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS,  
FILTER MATERIALS AND PROTECTIVE CLOTHING NOT  
OTHERWISE SPECIFIED; packaging (including separately  
collected municipal packaging waste); paper and cardboard  
packaging

### 14. Transport information

A box of Uniphos detector tubes contain less than 0.5 grams of hazardous materials and as such are classified a small quantity exception for transportation (49 CFR 173.4) and require no special shipping consideration.

#### Land transport (ADR/RID)

**Other applicable information (land  
transport):**

Not classified as dangerous regarding transport regulations.

#### Inland waterways transport

**Other applicable information (inland  
waterways transport):**

Not classified as dangerous regarding transport regulations.

#### Marine transport

**Other applicable information (marine  
transport):**

Not classified as dangerous regarding transport regulations.

#### Air transport

**Other applicable information (air  
transport):**

Not classified as dangerous regarding transport regulations.

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### 15. Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulatory information

No data available.

### 16. Other information

Changes:

Sections which have been changed in comparison to the preceding edition: 1, 2, 3, 10, 11, 12

Abbreviations and acronyms:

n.a. = not applicable

n.d. = not determined

Full text of R-phrases referred to under sections 2 and 3:

10	Flammable.
21/22	Harmful in contact with skin and if swallowed.
34	Causes burns.
35	Causes severe burns.
36/38	Irritating to eyes and skin.
42/43	May cause sensitization by inhalation and skin contact.

Full text of H-Statements referred to under sections 2 and 3:

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Further Information:

The information is based on present levels of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights. The product is to be used exclusively for the applications named in the technical leaflet or in the processing instructions. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*