PHTHALODINITRILE

0670
October 2004

CAS No: 91-15-6
RTECS No: TI8575000
UN No: 3276

Phthalic acid dinitrile
1,2-Benzenedicarbonitrile
1,2-Dicyanobenzene
o-Benzenedinitrile
$C_8H_4N_2$ / $C_6H_4(CN)_2$
Molecular mass: 128.1

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
FIRE	Combustible. Gives off irritating or toxic fumes (or gases) in a fire.	NO open flames.	Dry powder, carbon dioxide, foam.
EXPLOSION	Finely dispersed particles form explosive mixtures in air.	Prevent deposition of dust; closed system, dust explosion-proof electrical equipment and lighting.	
EXPOSURE		**PREVENT DISPERSION OF DUST!**	
Inhalation	Dizziness. Headache. Nausea. Vomiting. Convulsions. Unconsciousness.	Local exhaust or breathing protection.	Fresh air, rest. Refer for medical attention.
Skin		Protective gloves.	Rinse skin with plenty of water or shower.
Eyes		Safety goggles.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
Ingestion	Dizziness. Headache. Nausea. Vomiting. Convulsions. Unconsciousness.	Do not eat, drink, or smoke during work.	Rinse mouth. Induce vomiting (ONLY IN CONSCIOUS PERSONS!). Give a slurry of activated charcoal in water to drink. Refer for medical attention.

SPILLAGE DISPOSAL	PACKAGING & LABELLING	
Sweep spilled substance into containers. Carefully collect remainder, then remove to safe place. Personal protection: P3 filter respirator for toxic particles. Do NOT let this chemical enter the environment.	UN Hazard Class: 6.1 UN Pack Group: III	Do not transport with food and feedstuffs.

EMERGENCY RESPONSE	SAFE STORAGE
Transport Emergency Card: TEC (R)-61GT1-III	Separated from strong oxidants, food and feedstuffs.

IPCS
International Programme on Chemical Safety

Prepared in the context of cooperation between the International Programme on Chemical Safety and the European Commission

IMPORTANT DATA

Physical State; Appearance
YELLOW CRYSTALLINE POWDER, WITH CHARACTERISTIC ODOUR.

Chemical dangers
The substance decomposes on heating producing toxic fumes including cyanide. On combustion, forms nitrogen oxides. Reacts with strong oxidants.

Occupational exposure limits
TLV not established.
MAK not established.

Routes of exposure
The substance can be absorbed into the body by inhalation and by ingestion.

Inhalation risk
A harmful concentration of airborne particles can be reached quickly when dispersed.

Effects of short-term exposure
The substance may cause effects on the central nervous system.

PHYSICAL PROPERTIES

Boiling point: 304.5/C
Melting point: 141/C
Density: 1.24 g/cm^3
Solubility in water, g/100 ml at 25/C: 0.06

Vapour pressure, Pa at 20/C: 4
Flash point: 162/C
Auto-ignition temperature: >580/C
Octanol/water partition coefficient as log Pow: 0.58

ENVIRONMENTAL DATA

The substance is harmful to aquatic organisms. This substance does enter the environment under normal use. Great care, however, should be given to avoid any additional release, e.g. through inappropriate disposal.

NOTES

ADDITIONAL INFORMATION