2,4-DINITROPHENOL

0464
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CAS No: 51-28-5
RTECS No: SL2800000
UN No: 1320 (wetted with no less than 15% water)
EC No: 609-041-00-4

1-Hydroxy-2,4-dinitrobenzene
$C_6H_4N_2O_5$ / $C_6H_3(OH)(NO_2)_2$
Molecular mass: 184.11

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.	Water in large amounts.
EXPLOSION	Risk of fire and explosion.	Do NOT expose to friction or shock.	In case of fire: keep drums, etc., cool by spraying with water. Combat fire from a sheltered position.
EXPOSURE		**PREVENT DISPERSION OF DUST! STRICT HYGIENE!**	
Inhalation	See Ingestion.	Local exhaust or breathing protection.	Fresh air, rest (see Notes). Refer for medical attention.
Skin	MAY BE ABSORBED! Redness. Roughness. Yellow staining of the skin. (Further see Inhalation).	Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse skin with plenty of water or shower. Refer for medical attention.
Eyes		Safety goggles.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
Ingestion	Nausea. Vomiting. Palpitations. Collapse. Sweating.	Do not eat, drink, or smoke during work.	Rest. Refer for medical attention.

SPILLAGE DISPOSAL	PACKAGING & LABELLING	
Evacuate danger area! Do not allow to dry out. Sweep spilled substance into containers. Wipe up remainder in sand or other inert material, then remove to safe place. Personal protection: complete protective clothing including self-contained breathing apparatus.	T Symbol N Symbol R: 23/24/25-33-50 S: (1/2-)28-37-45-61 Note: C UN Hazard Class: 4.1 UN Subsidiary Risks: 6.1 UN Pack Group: I	Unbreakable packaging; put breakable packaging into closed unbreakable container. Do not transport with food and feedstuffs. Marine pollutant.

EMERGENCY RESPONSE	SAFE STORAGE
Transport Emergency Card: TEC (R)-41GDT-I	Fireproof. Separated from combustible and reducing substances, food and feedstuffs. Cool.

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 CRYSTALS. (SEE NOTES).

Physical dangers
Dust explosion possible if in powder or granular form, mixed with air.

Chemical dangers
May explosively decompose on shock, friction, or concussion. May explode on heating. Shock-sensitive compounds are formed with alkalis, ammonia and most metals. The substance decomposes on heating producing toxic gases including nitrogen oxides (see Notes).

Occupational exposure limits
TLV not established.

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

Inhalation risk
Evaporation at 20/C is negligible; a harmful concentration of airborne particles can, however, be reached quickly.

Effects of short-term exposure
The substance may cause effects on metabolism, resulting in very high body temperature. Exposure may result in death.

Effects of long-term or repeated exposure
Repeated or prolonged contact with skin may cause dermatitis. The substance may have effects on the peripheral nervous system. The substance may have effects on the eyes, resulting in cataracts.

PHYSICAL PROPERTIES

Sublimation
Melting point: 112/C
Relative density (water = 1): 1.68
Solubility in water, g/100 ml at 54.5/C: 0.14
Relative vapour density (air = 1): 6.36

ENVIRONMENTAL DATA

This substance may be hazardous to the environment; special attention should be given to aquatic organisms.

NOTES

Use all available methods for reducing body temperature.
Because of its explosive properties, the compound is used in the form of a water paste.
UN 0076 applies to the dry compound. CAS 25550-58-7 applies to unspecified isomers of dinitrophenol.
Card has been partly updated in October 2005. See sections Occupational Exposure Limits, EU classification, Emergency Response.

ADDITIONAL INFORMATION