GLYPHOSATE

0160
April 2005

CAS No: 1071-83-6
RTECS No: MC1075000
EC No: 607-315-00-8

N-(Phosphonomethyl)glycine
$C_3H_8NO_5P$ / $HOOCCH_2NHCH_2PO(OH)_2$
Molecular mass: 169.1

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, NO sparks, and NO smoking.	Powder, alcohol-resistant foam, water spray, carbon dioxide.
EXPLOSION	Finely dispersed particles form explosive mixtures in air.	Prevent build-up of electrostatic charges (e.g., by grounding). Prevent deposition of dust; closed system, dust explosion-proof electrical equipment and lighting.	
EXPOSURE		**PREVENT DISPERSION OF DUST!**	
Inhalation	Cough.	Avoid inhalation of fine dust and mist.	Fresh air, rest.
Skin	Redness.	Protective gloves.	Remove contaminated clothes. Rinse and then wash skin with water and soap.
Eyes	Redness. Pain.	Safety goggles.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
Ingestion	Burning sensation in the throat and chest.	Do not eat, drink, or smoke during work. Wash hands before eating.	Rinse mouth. Do NOT induce vomiting.

SPILLAGE DISPOSAL	PACKAGING & LABELLING	
Personal protection: P2 filter respirator for harmful particles. Sweep spilled substance into plastic containers; if appropriate, moisten first to prevent dusting. Carefully collect remainder, then remove to safe place. Do NOT let this chemical enter the environment.	Xi Symbol N Symbol R: 41-51/53 S: (2-)26-39-61	Do not transport with food and feedstuffs.

EMERGENCY RESPONSE	SAFE STORAGE
	Provision to contain effluent from fire extinguishing. Separated from food and feedstuffs. Well closed. Do NOT store in galvanized steel or unlined steel containers. Store in an area without drain or sewer access.

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
COLOURLESS CRYSTALS

Physical dangers
Dust explosion possible if in powder or granular form, mixed with air. If dry, it can be charged electrostatically by swirling, pneumatic transport, pouring, etc.

Chemical dangers
The substance decomposes on heating producing toxic fumes including nitrogen oxides, phosphorus oxides. Attacks iron and galvanized steel.

Occupational exposure limits
TLV not established.

Inhalation risk
A harmful concentration of airborne particles can be reached quickly on spraying.

Effects of short-term exposure
The substance is severely irritating to the eyes and is mildly irritating to the skin.

PHYSICAL PROPERTIES

Melting point (decomposes): below 234/C
Density: 1.7 g/cm^3
Solubility in water, g/100 ml at 25/C: 1.2

Vapour pressure, Pa at 20/C: negligible
Octanol/water partition coefficient as log Pow: -1.0

ENVIRONMENTAL DATA

The substance is toxic 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

Sodium, potassium and amine salts are readily soluble in water.
Roundup (for the monoisopropyl ammonium salt) and Polado (for the sesquisodium salt) are trade names.
Carrier solvents used in commercial formulations may change physical and toxicological properties.

ADDITIONAL INFORMATION