4,4'-METHYLENE BIS(2-CHLOROANILINE)

0508

November 1998

CAS No: 101-14-4
RTECS No: CY1050000
EC No: 612-078-00-9

Benzenamine, 4,4'-methylenebis(2-chloro-)
2,2'-Dichloro-4,4'-methylenedianiline
4,4'-Diamino-3,3'-dichlorodiphenylmethane
MOCA; MBOCA
$C_{13}H_{12}Cl_2N_2$
Molecular mass: 267.2

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.	In case of fire in the surroundings: all extinguishing agents allowed.
EXPLOSION			
EXPOSURE		**AVOID ALL CONTACT!**	**IN ALL CASES CONSULT A DOCTOR!**
Inhalation	Blue lips or finger nails. Blue skin. Confusion. Convulsions. Dizziness. Headache. Nausea. Unconsciousness.	Ventilation (not if powder), local exhaust, or breathing protection.	Fresh air, rest. Refer for medical attention.
Skin	MAY BE ABSORBED! Burning sensation. (Further see Inhalation).	Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse and then wash skin with water and soap. Refer for medical attention.
Eyes		Safety goggles, or face shield, or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
Ingestion	Abdominal pain. (See Inhalation).	Do not eat, drink, or smoke during work.	Rinse mouth. Refer for medical attention.

SPILLAGE DISPOSAL	PACKAGING & LABELLING
If in molten state, let solidify. Sweep spilled substance into containers; if appropriate, moisten first to prevent dusting. Carefully collect remainder, then remove to safe place. Do NOT let this chemical enter the environment. (Extra personal protection: complete protective clothing including self-contained breathing apparatus).	**EU classification** T Symbol N Symbol R: 45-22-50/53 S: 53-4 Note: E5-60-61

EMERGENCY RESPONSE	SAFE STORAGE
	See Chemical Dangers. Well closed.

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 OR LIGHT BROWN PELLETS

Chemical dangers
The substance decomposes on heating above 200/C or on burning producing toxic and corrosive fumes including hydrogen chloride and nitrogen oxides. The substance is a weak base. Reacts with some metals such as aluminium, magnesium and potassium.

Occupational exposure limits
TLV: as TWA 0.01 ppm 0.11 mg/m^3 (skin); A2 (suspected human carcinogen); BEI issued (ACGIH 2006).
MAK: skin absorption (H); Carcinogen category: 2 (DFG 2006).

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

Inhalation risk
A harmful contamination of the air will not or will only very slowly be reached on evaporation of this substance at 20/C; on spraying or dispersing, however, much faster.

Effects of short-term exposure
The substance may cause effects on the blood, resulting in formation of methaemoglobin. The effects may be delayed. Medical observation is indicated.

Effects of long-term or repeated exposure
This substance is probably carcinogenic to humans. May cause genetic damage in humans.

PHYSICAL PROPERTIES

Melting point: 110/C
Density: 1.44 g/cm^3
Solubility in water: none
Octanol/water partition coefficient as log Pow: 3.94

ENVIRONMENTAL DATA

In the food chain important to humans, bioaccumulation takes place, specifically in aquatic organisms and plants.

NOTES

Depending on the degree of exposure, periodic medical examination is indicated.
Specific treatment is necessary in case of poisoning with this substance; the appropriate means with instructions must be available.
Bisamine S, Bisamine A, Cuamine M, Cuamine MT, Curalin M, Curalon M, Curene 442, Diamet Kh are trade names.
Card has been partially updated in August 2007: see Occupational Exposure Limits.

ADDITIONAL INFORMATION