

Ingestion : Rinse mouth immediately and then drink plenty of water, seek medical attention.

5. Fire-fighting Measures

Suitable extinguishing media : Use extinguishing measures to suit surroundings., Water, Dry chemical, Foam, carbon dioxide

Hazards during fire-fighting : In case of fire and/or explosion do not breathe fumes. Can be released in case of fire:, Carbon oxides, nitrogen oxides, Sulphur oxides, hydrogen chloride

Further information : Collect separately contaminated extinguishing water, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental Release Measures

Personal precautions : Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation.

Environmental precautions : Do not discharge into drains/surface waters/groundwater.

Methods for cleaning-up or taking-up : For large amounts: Dampen, pick up mechanically and dispose of. Avoid raising dust. For residues: Use approved industrial vacuum cleaner for removal. Pack in tightly closed containers for disposal.

Additional information : Never return spills in original containers for re-use.

7. Handling and Storage

Handling

Advice on safe handling : Do not open until use. Provide good ventilation of working area (local exhaust ventilation if necessary). Keep away from sources of ignition - No smoking. Protect from moisture.

Hygienic measures : General safety and hygiene measures. Hands and/or face should be washed before breaks and at the end of the shift. Store work clothing separately.

Storage

Requirements for storage rooms and vessels : Store in original container. Protect from heat and direct sunlight. Jointless smooth floor Keep container tightly closed.

Advice on storage compatibility : Keep away from food, drink and animal feedingstuffs. Advice on Segregation

8. Exposure controls/personal protections

Personal protective equipment

Respiratory protection : Use NIOSH approved respirator if exposed to vapors/dust/aerosol.

Hand protection : Chemical resistant protective gloves

Eye protection : Safety glasses with side-shields

Body protection : Laboratory: laboratory coat.

Additional information : Only use protective equipment in accordance with national/international regulations. Follow the national regulations about wearing personal protective equipment and the warranty given by the manufacturer for the safe function.

General protective measures : Handle in accordance with good industrial hygiene and safety practice. Do not breathe dust. Avoid contact with skin, eyes and clothing.

9. Physical and Chemical Properties

Form : solid

Colour : No data available.

Odour : No data available.

Odour threshold : No data available.

pH value : No data available.

Melting point/ -range : No data available.

Boiling point/boiling range : not applicable

Flash point : not applicable

Ignition temperature : No data available.

Evaporation rate : No data available.

Flammability : No data available.

Lower explosion limit : No data available.

Upper explosion limit : No data available.

Vapour pressure : not applicable

Relative vapour density : No data available.

Relative density : No data available.

Solubility in water : No data available.

Partitioning coefficient n-octanol/water (log Pow) : No data available.

Thermal decomposition : No data available.

Explosiveness : No data available.

Peroxides : No data available.

Further information

Minimum ignition energy : No data available.

10. Stability and Reactivity

Conditions to avoid : No data available.

Substances to avoid : No data available.

Hazardous decomposition products : No data available.

11. Toxicological Information

Acute oral toxicity : LD50 = 650 mg/kg rat (male)
The values mentioned are those of the active ingredient.

		LD50 = 975 mg/kg rat (male) The values mentioned are those of the active ingredient.
Acute inhalation toxicity	:	No data available.
Acute dermal toxicity	:	No data available.
Skin irritation	:	No data available.
Eye irritation	:	Non-irritant (rabbit) The values mentioned are those of the active ingredient.
Sensitization	:	Freund's complete adjuvant test (FCA) Non-sensitizing. (guinea pig) The values mentioned are those of the active ingredient.
Genetic toxicity in vitro	:	Ames-test Salmonella typhimurium Result: negative The values mentioned are those of the active ingredient. Chromosomal aberration test CHO (chinese hamster ovary) Result: positive The values mentioned are those of the active ingredient. Mouse lymphoma assay mouse lymphoma cells Result: negative The values mentioned are those of the active ingredient. human lymphocytes Result: positive The values mentioned are those of the active ingredient.
Genetic toxicity in vivo	:	Micronucleus assay mouse Result: negative The values mentioned are those of the active ingredient. Sister chromatid exchange assay Chinese hamster Result: negative The values mentioned are those of the active ingredient.
Carcinogenicity	:	No data available.
Reproductive toxicity	:	No data available.
Teratogenicity	:	No data available.
Aspiration hazard	:	No data available.
Assessment of mutagenicity	:	Did not show mutagenic effects in animal experiments., The values mentioned are those of the active ingredient.

12. Ecological information

Ecotoxicity

Toxicity to fish	:	LC50 = 750 mg/l Exposition time: 96 h The values mentioned are those of the active ingredient.
Toxicity to daphnia	:	EC50 = 180 mg/l (Daphnia) The values mentioned are those of the active ingredient.
Toxicity to algae	:	No data available.

Toxicity to bacteria : No data available.
Chronic toxicity to fish : No data available.
Chronic toxicity to aquatic invertebrates : No data available.

Persistence and degradability

Biological degradation : Not easily biodegradable (by OECD criteria). 8 % Exposition time: 28 d
The values mentioned are those of the active ingredient.

Transport between environmental compartments : No data available.

Bioaccumulation : No bioaccumulation is to be expected ($\log P(o/w) < 1$)., The values mentioned are those of the active ingredient.

PBT and vPvB assessment : No data available.

13. Disposal Considerations

Product : Dispose of in accordance with local regulations. Must not be disposed off together with household garbage. Do not allow product to reach sewage system.
Contaminated packaging : Packs that cannot be cleaned should be disposed of in the same manner as the contents. Uncontaminated packaging can be recycled.

14. Transport Information

Further information : Not classified as dangerous in the meaning of transport regulations. For the internal transport: Use only released containers. Use only tightly closed containers. The container must be correctly labelled. Protect container against fall down.

15. Regulatory information**National legislation/regulations**

Water hazard class : VVWWS
WGK 1 slightly water endangering
Annex 4 VwVwS (Germany) dated Mai, 17 th 1999

16. Other particulars

Prepared by: Environmental Health & Safety
Date Prepared: June 15, 2012

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.