

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions:

Do not inhale vapors/aerosols. Avoid substance contact. Ensure supply of fresh air in enclosed rooms.

Environmental Precautions:

Do not allow to enter sewerage system.

Additional Notes:

Render harmless: treat with excess sodium hydrogen sulfite solution.

SECTION 7: HANDLING AND STORAGE

Handling:

Work under hood. Do not inhale substance. Avoid generation of vapors/aerosols.

Storage:

Cannot be stored indefinitely. Keep container closed and protected from direct sunlight. Store at room temperature (+15°C to +25°C).

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

Ingredients:

EC
 Name: Formaldehyde
 Carcinogenic: C 3: owing possible carcinogenic effects for man
 Sensitization: Danger of sensitization of the skin

Engineering:

Maintain general industrial hygiene practice.

Personal Protective Equipment:

As appropriate to quantity handled.

Respiratory Protection:

Required when vapors/aerosols are generated.

Protective Gloves:

Rubber or plastic

Eye Protection:

Goggles or face mask

Industrial Hygiene:

Immediately change contaminated clothing. Apply skin protective barrier cream. Wash hands and face after working with substance. Work under hood. Do not inhale substance.

SECTION 9: PHYSICAL/CHEMICAL PROPERTIES

Appearance:	Colorless liquid	Odor:	Odorless	Density at 20° C:	1.003 g/cm ³
Melting Point:	NA	Boiling Point:	~ 100 °C	Solubility:	Soluble
pH at 20° C:	~ 5.5	Explosion Limit:	NA	Flash Point:	NA
Thermal Decomp.:	NA				

SECTION 10: STABILITY AND REACTIVITY

Conditions to be Avoided:

Heating

Hazardous Polymerization:

Tends to polymerize.

Further Information:

Incompatible with various metals and various alloys. Explosive with air in a vaporous/gaseous state when heated. Stabilizer: Methanol.

Hazardous Decomposition Products:

In the event of fire: See section 5.

Substances to be Avoided:

Polymerization initiators (eg alkali metals), acids, nitrogen oxides, hydrogen peroxide, oxidizing agent, performic acid

SECTION 11: TOXICOLOGICAL INFORMATION

Quantitative data on the toxicity of this product is not available.

APPLICABLE TO PARTIAL COMPONENT:

The following applies to Formaldehyde as the pure substance:

Acute toxicity

LC50 (inhalation, rat): 0.578 mg/L /4 h (Formaldehyde).

LC50 (dermal, rabbit): 270 mg/kg (Formaldehyde).

LC50 (oral, rat): 100 mg/kg (Formaldehyde).

Specific symptoms in animal studies:

Eye irritation test (rabbit): Severe irritations (Formaldehyde).

Skin irritation test (rabbit): Severe irritations (Formaldehyde).

Subacute to chronic toxicity

Applicable to partial component(s):

Sensitization:

Sensitization test (guinea pig): positive.

The carcinogenic potential requires further clarification.

No impairment of reproductive performance in animal experiments.

In Case of Inhalation: Inhalation may lead to the formation of edemas in the respiratory tract.

In Case of Skin Contact: Slight irritations. Risk of skin sensitization. Danger of skin absorption.

In Case of Eye Contact: Slight irritations. Lachrymal irritation due to vapors.

In Case of Ingestion: Irritations of mucous membranes in the mouth, pharynx, esophagus and gastrointestinal tract.

Further Data: The following applies to aldehydes in general: irritations after contact with eyes and skin. Mucosal irritations, coughing, and dyspnoea after inhalation. The following applies to aliphatic alcohols in general: effect when product is not handled and used properly: mucosal irritations; after absorption of large quantities: narcosis. Further hazardous properties cannot be excluded. The product should be handled with the usual care when dealing with chemicals. Property that must be anticipated on the basis of the components of the preparation:

SECTION 12: ECOLOGICAL INFORMATION

Quantitative data on the ecological effect of this product is not available.

APPLICABLE TO PARTIAL COMPONENT:

The following applies to Formaldehyde as the pure substance:

Abiotic degradation:

Rapid degradation. (air, formaldehyde)

Biologic degradation:

Biodegradation: 97.4 % /5 d (Formaldehyde). Readily biodegradable.

Behavior in environmental compartments:

Distribution: log p(o/w): 0.00 (Formaldehyde).

No bioaccumulation is to be expected (log P(o/w) <1).

Ecotoxic effects:

Biological effects: Toxic for aquatic organisms. protoplasmatic toxin. Caustic even in diluted form. Disinfectant effect. Toxic effect on fish and plankton.

Sludge decomposition impaired or not possible even in diluted concentration.

Endangers drinking water supplies if allowed to enter soil and/or waters in large quantities.

Fish toxicity: P.promelas LC50 : 24 mg/L /96 h (Formaldehyde); Br.rerio LC50 : 41 mg/L /96 h (Formaldehyde);

Daphnia toxicity: Daphnia magna EC50 : ~2 mg/L /48 h (Formaldehyde);

Bacterial toxicity: Photobacterium phosphoreum EC50 : 8.5 mg/L /30 min (Formaldehyde).

Maximum permissible toxic concentration: Algeal toxicity: Sc.quadricauda IC5 : 2.5 mg/L /8 d

(Formaldehyde); Bacterial toxicity: M.aeruginosa EC5 : 0.39 mg/L /8 d (Formaldehyde).

Further Data: COD: 1.06 g/g (Formaldehyde); TOD: 1.068 g/g (Formaldehyde) Do not allow to enter waters, waste water, or soil!

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal: Chemical residues are generally classified as special waste and thus covered by local regulations. Contact local authorities or disposal companies for advice. Handle contaminated packaging in the same way as the substance itself.

SECTION 14: TRANSPORTATION INFORMATION**Land:**

Not subject to transport regulations

Sea:

Not subject to transport regulations

Air:

Not subject to transport regulations

SECTION 15: REGULATORY INFORMATION**Labeling according to EC Directives:****Symbol:** F: Flammable
Xi: Irritant**R-phrases:** 11-43: Highly flammable. May cause sensitization by skin contact**S-phrases:** 36/37: Wear suitable protective clothing and gloves.**Contains:** Formaldehyde**SECTION 16: OTHER INFORMATION****Text of R-phrases under Section 3**11: Highly flammable.
34: Causes burns.
39/23/24/25: Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
40: Possible risks of irreversible effects.
43: May cause sensitization by skin contact.**Revision Information****Revision Date:** 2008-12-01
Supersedes edition of: 2006-11-20
Reason for revision: REACH Compliance and General Update**Legend**NA: Not Applicable
ND: Not Determined

THE INFORMATION CONTAINED HEREIN IS BASED ON THE PRESENT STATE OF OUR KNOWLEDGE. IT CHARACTERIZES THE PRODUCT WITH REGARD TO THE APPROPRIATE SAFETY PRECAUTIONS. IT DOES NOT REPRESENT A GUARANTEE OF THE PROPERTIES OF THE PRODUCT.