

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2015/830

SAFETY DATA SHEET

FOR INDUSTRIAL USE ONLY

UW86-100

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : UW86-100
SDS Number : 300000033076
Product type : Urea Formaldehyde Resin

1.2 Relevant identified uses of the substance or mixture and uses advised against

Product use : wood based product gluing

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier/Importer : Hexion UK Limited
Sully Moors Road,
Sully
South Glamorgan, Wales.
CF64 5YU

Contact person : 4information@hexion.com

Telephone : General information
+31 (0)10 295 4000

1.4

Emergency telephone number
Supplier : CARECHEM24
Telephone number : +44 (0) 1235 239 670

SECTION 2: Hazards identification


2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Skin Sens. 1 H317
Muta. 2 H341
Carc. 1B H350

See Section 16 for the full text of the H statements declared above.

2.2 Label elements

Hazard pictograms	:	
Signal word	:	Danger
Hazard statements	:	May cause an allergic skin reaction. May cause cancer. Suspected of causing genetic defects.

Precautionary statements

Prevention	:	Obtain special instructions before use. Wear protective gloves. Wear eye or face protection. Wear protective clothing.
Response	:	IF exposed or concerned: Get medical attention. IF ON SKIN: Wash with plenty of soap and water.
Storage	:	Store locked up.
Disposal	:	Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazardous ingredients : formaldehyde

Supplemental label elements : Not applicable.

2.3 Other hazards

Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII : Not applicable.

Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : Not applicable.

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

Substance/mixture : Mixture

Product/ingredient name	Identifiers	% by weight	<u>Classification</u>	Type
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			Regulation (EC) No. 1272/2008 [CLP]	
methanol	RRN : 01-2119433307-44 EC:200-659-6 CAS : 67-56-1 Index:603-001-00-X	>0 - <=2.8	Flam. Liq. 2, H225 Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 STOT SE 1, H370	[1][2]
formaldehyde	RRN : 01-2119488953-20 EC:200-001-8 CAS : 50-00-0 Index:605-001-00-5	>0 - <=2.1	Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 2, H330 Skin Corr./Irrit. 1B, H314 Skin Sens. 1, H317 Muta. 2, H341 Carc. 1B, H350 STOT SE 3, H335	[1][2]

Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

See Section 16 for the full text of the H statements declared above.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get

medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

- Protection of first aid personnel** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : No specific data.
Inhalation : No specific data.
Skin contact : Adverse symptoms may include the following:
irritation
redness
Ingestion : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
metal oxide/oxides

5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- 6.2 Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and material for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

- 6.4 Reference to other sections** : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see section 8 of SDS). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid

exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10 of SDS) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

7.3 Specific end use(s)

Recommendations : Not available
Industrial sector specific solutions : Not available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
formaldehyde	EH40/2005 WELs (1997-01-01) STEL 2.5 mg/m ³ 2 ppm TWA - TLV and PEL 2.5 mg/m ³ 2 ppm
methanol	EU OEL (2006-02-01) TWA - TLV and PEL 260 mg/m ³ 200 ppm Notes: Absorbed through skin. EH40/2005 WELs (1997-01-01) STEL 333 mg/m ³ 250 ppm Notes: Absorbed through skin. TWA - TLV and PEL 266 mg/m ³ 200 ppm Notes: Absorbed through skin.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and

measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents)
European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
formaldehyde	DNEL	Short term Inhalation	0.75 mg/m ³	Workers	Local
formaldehyde	DNEL	Long term Dermal	240 mg/kg bw/day	Workers	Systemic
formaldehyde	DNEL	Long term Inhalation	9 mg/m ³	Workers	Systemic
formaldehyde	DNEL	Long term Dermal	37 µg/cm ²	Workers	Local
formaldehyde	DNEL	Long term Inhalation	0.375 mg/m ³	Workers	Local
formaldehyde	DNEL	Long term Dermal	102 mg/kg bw/day	General	Systemic
formaldehyde	DNEL	Long term Inhalation	3.2 mg/m ³	General	Systemic
formaldehyde	DNEL	Long term Oral	4.1 mg/kg bw/day	General	Systemic
formaldehyde	DNEL	Long term Dermal	12 µg/cm ²	General	Local
formaldehyde	DNEL	Long term Inhalation	0.1 mg/m ³	General	Local

DNEL/DMEL Summary : Not available

PNECs

Product/ingredient name	Type	Compartment Detail	Value	Method Detail
formaldehyde	PNEC	Fresh water	0.47 mg/l	
formaldehyde	PNEC	Marine	0.47 mg/l	
formaldehyde	PNEC	Fresh water sediment	2.44 mg/kg dwt	
formaldehyde	PNEC	Marine water sediment	2.44 mg/kg dwt	
formaldehyde	PNEC	Intermittent Releases	4.7 mg/l	

PNEC Summary : Not available

Derived No-Effect Levels' (DNEL's) and Predicted No-Effect Concentrations' (PNEC's)

Explanatory note:

REACH requires manufacturers and importers to establish and report 'Derived No-Effect Levels' (DNEL's) for humans by inhalation, ingestion and dermal routes of exposure and 'Predicted No-Effect Concentrations' (PNEC's) for environmental exposure. DNEL's and PNEC's are established by the registrant without an official consultation process, and are not intended to be directly used for setting workplace or general population exposure limits. They are primarily used as input values in running Quantitative Risk Assessment models (like the ECETOC-TRA model).

Due to differences in calculation methodology the DNEL will tend to be lower (sometimes significantly) than any corresponding health-based OEL for that chemical substance. Further although DNEL's (and PNEC's) are an indication for setting risk reduction measures, it should be recognized that these limits do not have the same regulatory application as officially endorsed governmental OEL's.

8.2 Exposure controls

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	:	Viscous liquid.
Color	:	White
Odor	:	slight formaldehyde
Odor threshold	:	Not available
pH	:	8
Melting point/freezing point	:	Not available (not measured)
Initial boiling point and boiling range	:	Approx. 104 °C
Flash point	:	Not applicable
Evaporation rate	:	Not available (not measured)
Upper/lower flammability or explosive limits	:	Lower: Not applicable. Upper: Not applicable.
Vapor pressure	:	Not determined
Vapor density	:	Not available (not measured)
Relative density	:	1.29
Solubility(ies)	:	Not available (not measured)
Solubility in water	:	Miscible
Partition coefficient: n-octanol/water	:	Not determined
Auto-ignition temperature	:	Not available (not measured)
Decomposition temperature	:	Not available (not measured)
Viscosity	:	Dynamic: 17.5 Poise @ 21 °C Kinematic: Not available (not measured)
Explosive properties	:	Not available (not measured)
Oxidizing properties	:	Not determined

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	:	Stable under normal conditions.
10.2 Chemical stability	:	The product is stable.
10.3 Possibility of hazardous reactions	:	Hazardous reactions or instability may occur under certain conditions of storage or use.
10.4 Conditions to avoid	:	Heating may cause self-polymerisation.
10.5 Incompatible materials	:	Reactive or incompatible with the following materials: Acids and salts of aluminum and ammonia
10.6 Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

During processing, vapors of formaldehyde and possibly methanol may be released.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
methanol	LD50 Oral	Rat	5,628 mg/kg	-
formaldehyde	LD50 Oral	Rat	800 mg/kg	-
	LD50 Oral	Rat	460 mg/kg	-
	LC50 Inhalation	Rat	0.578 mg/l	2 h
	LC50 Inhalation	Rat	0.579 mg/l	4 h

Conclusion/Summary : Not available

Acute toxicity estimates

Route	ATE value
Oral	2,359.7 mg/kg
Route	ATE value
Dermal	7,079 mg/kg
Route	ATE value
Inhalation (vapors)	25.5 mg/l

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
formaldehyde	Skin - Erythema/Eschar	Rabbit	2.5	20 hrs	-
	Skin - Edema	Rabbit	3	20 hrs	-
	eyes - Cornea opacity	Mouse	> 3		-

Conclusion/Summary

Skin : Not available
eyes : Not available
Respiratory : Not available

Sensitization

Product/ingredient name	Route of exposure	Species	Result
formaldehyde	Skin	-	-
Remarks:	In an OECD Testing Guideline 429 mouse Local Lymph Node Assay (LLNA) formaldehyde was positive at 5% with a Stimulation Index > 3-fold. The EC3 value was estimated to be 0.35%. Formaldehyde at a concentration of 2% induced a positive result in an OECD Testing Guideline 406 Guinea Pig Maximization study with 18/20 animals eliciting a positive dermal reaction at the second challenge (72 hr) exposure Formaldehyde was also positive in a Buehler Guinea Pig study with 7/10 animals responding with a positive response at a challenge concentration of 5%. Formaldehyde elicited positive dermal reactions in human patch test subjects.		

Conclusion/Summary

Skin : Not available

Respiratory : Not available

Mutagenicity

Product/ingredient name	Test	Experiment	Result
formaldehyde	-	; -	-
Remarks:	<p>Formaldehyde is genotoxic in vitro. Formaldehyde induces gene-mutation in the Ames/Salmonella mutation assay, L5178Y mouse lymphoma cells, Chinese hamster cells and in human lymphoblastoid cells. Formaldehyde has induced chromosome damage in L5178Y mouse lymphoma cells (small colonies), CHO and V79 Chinese hamster cells and in human lymphocytes. In vitro treatment with Formaldehyde has induced the formation of DNA-protein cross-links (DPX) in human lymphocytes, human nasal epithelial cells and in a rat tracheal cell line.</p> <p>Generally, exposure to 15-20 ppm Formaldehyde has not induced evidence of genotoxicity at distant/systemic sites in laboratory animal models. Formaldehyde inhalation exposure failed to induce chromosome damage in rat and mouse bone marrow and in rat lymphocytes. Inhalation exposure to up to 15 ppm did not induce DNA single breaks in rat lymphocytes. Formaldehyde inhalation did induce DNA adducts and DNA-protein cross-links (DPX) in rat nasal mucosa when the animals were exposed to 10 ppm Formaldehyde. When primates were exposed to 6 ppm Formaldehyde, DPX formation was observed in the nasal tract tissue. One study has reported significant bone marrow cytotoxicity and an increased frequency of chromosome aberrations in workers exposed to 1-2 ppm Formaldehyde. The weight-of-evidence demonstrates that Formaldehyde exposure does not induce distant site/systemic genotoxicity in laboratory animals and humans.</p>		

Conclusion/Summary : Not available

Carcinogenicity

Product/ingredient name	Result	Species	Dose	Exposure
formaldehyde	-----	-		
Remarks:	<p>Inhalation of > 6 ppm Formaldehyde has induced squamous cell carcinomas in the nasal tract of rats. The dose-response for tumor occurrence is non-linear. Irritational cytotoxicity and cell proliferation are key mechanistic events for Formaldehyde induced tumor initiation. Epidemiological data is inconclusive regarding Formaldehyde's potential to induce tumors in humans. Based on several large worker cohort studies, Formaldehyde may induce nasopharyngeal tumors. However, recent reports from the U.S. National Cancer Institute (NCI) that re-evaluated this data suggest that this may not be the case. Some of the worker cohort studies suggest that Formaldehyde inhalation may induce haematopoietic cancers. However, the NCI's reassessment of this data, demonstrate that this conclusion is incorrect. Furthermore, the results of valid laboratory rodent studies do not support the finding of increased haematopoietic tumors in humans. In addition, there is no scientifically plausible mechanism-of-action to explain the development of haematopoietic cancers in inhalation exposed humans.</p>			

Conclusion/Summary : Not available

Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Development toxin	Species	Dose	Exposure
formaldehyde	-	-	-	-	-	-
Remarks:	<p>There are no reproductive toxicity available for Formaldehyde exposure. However, findings from multiple repeated-dose studies do not show evidence of adverse effects upon rodent reproductive organs.</p>					

Conclusion/Summary : Not available

Teratogenicity

Product/ingredient name	Result	Species	Dose	Exposure
formaldehyde	- - -	-	-	-
Remarks:		Formaldehyde treatment did not induce developmental toxicity in rodent studies when exposures were conducted up to maternally toxic concentrations of formaldehyde.		

Conclusion/Summary : Not available

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
methanol	Category 3 Category 1 Category 2 Category 1		Respiratory tract irritation central nervous system (CNS) optic nerve
formaldehyde	Category 3		Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available

Aspiration hazard

Not available

Information on likely routes of exposure : Not available

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.
Inhalation : No specific data.
Skin contact : Adverse symptoms may include the following:
 irritation
 redness
Ingestion : No specific data.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects : Not available
Potential delayed effects : Not available

Long term exposure

Potential immediate effects : Not available

Potential delayed effects : Not available

Potential chronic health effects

Conclusion/Summary : Not available

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : Suspected of causing genetic defects.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
methanol			
	Acute EC50 13,000 mg/l Fresh water	Fish - Rainbow trout,donaldson trout	4 d
formaldehyde			
	Acute LC50 6.7 mg/l -	Fish - Striped bass	96 h
	Acute LC50 6.9 mg/l -	Fish - Zebra danio	6 d
	Acute No-observable-effect-concentration > 47.9 mg/l -	Fish - Medaka, high-eyes	28 d
	Acute EC50 5.8 mg/l Fresh water	Aquatic invertebrates. Water flea	2 d
	Acute EC50 4.9 mg/l Fresh water	Aquatic plants - Algae	72 h
	Acute EC50 4.3 mg/l Fresh water	Aquatic plants - Algae	48 h
	Acute EC50 19 mg/l -	Micro-organism - Soil organisms	3 h

Conclusion/Summary : Not available

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
formaldehyde		-		
Remarks:	The results of O.E.C.D. Test Guideline No. 301C and 301D studies demonstrated that 90% - 97% degradation of formaldehyde is achieved within two weeks of sludge contact. Therefore, formaldehyde is readily biodegradable under the conditions of the two studies.			
		-		
Remarks:	Not tested but expected to be readily biodegradable.			

Conclusion/Summary : Not available

12.3 Bioaccumulative potential

Not available

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
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methanol	-0.77	-	low
formaldehyde	0.35	< 1	low

12.4 Mobility in soil

- Soil/water partition coefficient (KOC)** : Not available
- Mobility** : Partially water soluble., Viscous liquid.

12.5 Results of PBT and vPvB assessment

- PBT** : P: Not available
 B: Not available
 T: Not available
- vPvB** : vP: Not available
 vB: Not available

- 12.6 Other adverse effects** : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
- Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.

Packaging

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

Regulatory information	14.1. UN number	14.2. UN proper shipping name	14.3. Transport hazard class(es)	14.4. Packing group
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ADR/ADN Non-regulated

RID Non-regulated

ADN Non-regulated

ICAO/IATA Non-regulated

IMO/IMDG Non-regulated

14.5. Environmental hazards

Environmentally hazardous and/or Marine Pollutant : No.

14.6 Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Substances of very high concern

Carcinogen: Not listed

Mutagen: Not listed

Toxic to reproduction: Not listed

PBT: Not listed

vPvB: Not listed

Other EU regulations

REACH Status : The substance(s) in this product has (have) been Registered, or are exempted from registration, according to Regulation (EC) No. 1907/2006 (REACH).

Aerosol dispensers : Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Restricted to professional users.

EU - Prior Informed Consent. List of chemicals subject to the international PIC procedure (Annex I - Part 1) : Not listed

EU - Prior Informed Consent. List of chemicals subject to the international PIC procedure : Not listed

(Annex I - Part 2)

EU - Prior Informed Consent. : Not listed

List of chemicals subject to the international PIC procedure (Annex I - Part 3)

Product/ingredient name	Carcinogenic effects	Mutagenic effects	Developmental effects	Fertility effects
formaldehyde	Carc. 1B, H350	Muta. 2, H341	-	-

Seveso Directive

This product is controlled under the Seveso Directive.

National regulations

International regulations

International lists : Australia inventory (AICS) All components are listed or exempted.
Canada inventory All components are listed or exempted.
Japan inventory All components are listed or exempted.
China inventory (IECSC) All components are listed or exempted.
Korea inventory All components are listed or exempted.
New Zealand Inventory (NZIoC) All components are listed or exempted.
Philippines inventory (PICCS) All components are listed or exempted.
Taiwan inventory (CSNN) All components are listed or exempted.
United States inventory (TSCA 8b) All components are listed or exempted.

Chemical Weapons Convention List Schedule I Chemicals : Not listed

Chemical Weapons Convention List Schedule II Chemicals : Not listed

Chemical Weapons Convention List Schedule III Chemicals : Not listed

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DNEL = Derived No Effect Level
DMEL = Derived Minimal Effect Level
EUH statement = CLP-specific Hazard statement
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
PBT = Persistent, Bioaccumulative and Toxic
vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
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Skin Sens. 1, H317	Calculation method
Muta. 2, H341	Calculation method
Carc. 1B, H350	Calculation method

Full text of abbreviated H statements

H225	Highly flammable liquid and vapor.
H301 (oral)	Toxic if swallowed.
H311 (dermal)	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330 (inhalation)	Fatal if inhaled.
H331 (inhalation)	Toxic if inhaled.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H370	Causes damage to organs:
H225	Highly flammable liquid and vapor.
H301 (oral)	Toxic if swallowed.
H311 (dermal)	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330 (inhalation)	Fatal if inhaled.
H331 (inhalation)	Toxic if inhaled.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H370	Causes damage to organs:

Full text of classifications [CLP/GHS]

Flam. Liq. 2, H225	FLAMMABLE LIQUIDS - Category 2
Acute Tox. 3, H301	ACUTE TOXICITY (oral) - Category 3
Acute Tox. 3, H311	ACUTE TOXICITY (dermal) - Category 3
Skin Corr./Irrit. 1B, H314	SKIN CORROSION/IRRITATION - Category 1B
Skin Sens. 1, H317	SKIN SENSITISATION - Category 1
Eye Dam./Irrit. 1, H318	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Acute Tox. 2, H330	ACUTE TOXICITY (inhalation) - Category 2
Acute Tox. 3, H331	ACUTE TOXICITY (inhalation) - Category 3
STOT SE 3, H335	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

Muta. 2, H341	GERM CELL MUTAGENICITY - Category 2
Carc. 1B, H350	CARCINOGENICITY - Category 1B
STOT SE 1, H370	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 1
Flam. Liq. 2, H225	FLAMMABLE LIQUIDS - Category 2
Acute Tox. 3, H301	ACUTE TOXICITY (oral) - Category 3
Acute Tox. 3, H311	ACUTE TOXICITY (dermal) - Category 3
Skin Corr./Irrit. 1B, H314	SKIN CORROSION/IRRITATION - Category 1B
Skin Sens. 1, H317	SKIN SENSITISATION - Category 1
Eye Dam./Irrit. 1, H318	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Acute Tox. 2, H330	ACUTE TOXICITY (inhalation) - Category 2
Acute Tox. 3, H331	ACUTE TOXICITY (inhalation) - Category 3
STOT SE 3, H335	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3
Muta. 2, H341	GERM CELL MUTAGENICITY - Category 2
Carc. 1B, H350	CARCINOGENICITY - Category 1B
STOT SE 1, H370	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 1

Date of printing : 30.09.2018
Date of issue/ Date of revision : 03.07.2018
Date of previous issue : 00.00.0000
Version : 1.0

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