

# SAFETY DATA SHEET

XD 5011

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

### 1.1 Product identifier

**Product name** : XD 5011  
**Product code** : 00047903  
**Product description** :

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

**Product use** : 1-Component adhesive system

### 1.3 Details of the supplier of the safety data sheet

**Supplier** : Huntsman Advanced Materials (Europe)BVBA  
Everslaan 45  
3078 Everberg / Belgium  
Tel.: +41 61 299 20 41  
Fax: +41 61 299 20 40

**e-mail address of person responsible for this SDS** : Global\_Product\_EHS\_AdMat@huntsman.com

### 1.4 Emergency telephone number

#### Supplier

**Telephone number** : EUROPE: +32 35 75 1234  
France ORFILA: +33(0)145425959  
ASIA: +65 6336-6011  
China: +86 20 39377888  
India: +91 22 4050 6333  
Australia: 1800 786 152  
New Zealand: 0800 767 437  
USA: +1/800/424.9300

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

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

Flam. Liq. 2, H225  
Acute Tox. 4, H302  
Skin Irrit. 2, H315  
Eye Irrit. 2, H319  
Skin Sens. 1, H317  
Muta. 2, H341  
Aquatic Chronic 2, H411

**Ingredients of unknown toxicity** : Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 1.5%

**Ingredients of unknown ecotoxicity** : Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 1.5%

#### Classification according to Directive 1999/45/EC [DPD]

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

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**SECTION 2: Hazards identification**

**Classification** : F; R11  
 Muta. Cat. 3; R68  
 Xn; R20/21/22  
 Xi; R36/38  
 R43  
 N; R51/53

**Physical/chemical hazards** : Highly flammable.

**Human health hazards** : Possible risk of irreversible effects. Harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes and skin. May cause sensitisation by skin contact.

**Environmental hazards** : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

See Section 16 for the full text of the R phrases or H statements declared above.  
 See Section 11 for more detailed information on health effects and symptoms.

**2.2 Label elements**

**Hazard pictograms** : 

**Signal word** : Danger

**Hazard statements** : Highly flammable liquid and vapour.  
 Harmful if swallowed.  
 Causes skin irritation.  
 Causes serious eye irritation.  
 May cause an allergic skin reaction.  
 Suspected of causing genetic defects.  
 Toxic to aquatic life with long lasting effects.

**Precautionary statements**

**General** : Not applicable.

**Prevention** : Obtain special instructions before use. Wear protective gloves: >8 hours (breakthrough time): Ethyl Vinyl Alcohol Laminate (EVAL), butyl rubber. Wear eye or face protection. Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Avoid release to the environment.

**Response** : IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

**Storage** : Keep cool.

**Disposal** : Not applicable.

**Hazardous ingredients** : methanol  
 phenol  
 o-cresol  
 formaldehyde

**Supplemental label elements** : Not applicable.

**Special packaging requirements**

**Containers to be fitted with child-resistant fastenings** : Not applicable.

**Tactile warning of danger** : Not applicable.

**2.3 Other hazards**

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## SECTION 2: Hazards identification

**Other hazards which do not result in classification** : Not available.

## SECTION 3: Composition/information on ingredients

**Substance/mixture** : Mixture

Product/ingredient name	Identifiers	%	Classification		Type
			67/548/EEC	Regulation (EC) No. 1272/2008 [CLP]	
ethanol	CAS: 64-17-5 EC: 200-578-6	60-100	F; R11	Flam. Liq. 2, H225	[2]
trizinc bis(orthophosphate)	CAS: 7779-90-0 EC: 231-944-3	1-3	N; R50/53	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	[1]
methanol	CAS: 67-56-1 EC: 200-659-6	1-3	F; R11 T; R23/24/25, R39/23/24/25	Flam. Liq. 2, H225 Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 STOT SE 1, H370	[1] [2]
phenol	CAS: 108-95-2 EC: 203-632-7	1-3	Muta. Cat. 3; R68 T; R23/24/25 Xn; R48/20/21/22 C; R34	Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 Skin Corr. 1B, H314 Eye Dam. 1, H318 Muta. 2, H341 STOT RE 2, H373	[1] [2]
o-cresol	CAS: 95-48-7 EC: 202-423-8	0.1-1	T; R24/25 C; R34	Acute Tox. 3, H301 Acute Tox. 3, H311 Skin Corr. 1B, H314 Eye Dam. 1, H318	[1]
formaldehyde	CAS: 50-00-0 EC: 200-001-8	0.1-1	Carc. Cat. 3; R40 T; R23/24/25 C; R34 R43	Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Carc. 2, H351 STOT SE 3, H335i	[1] [2]
			<b>See Section 16 for the full text of the R-phrases declared above.</b>	<b>See Section 16 for the full text of the H statements declared above.</b>	

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**SECTION 3: Composition/information on ingredients**

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

**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.
- 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. If necessary, call a poison center or physician. 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-aiders** : No action shall be taken involving any personal risk or without suitable training. 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** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : Harmful if swallowed. Irritating to mouth, throat and stomach.

Over-exposure signs/symptoms

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

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## SECTION 4: First aid measures

### 4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : Symptomatic treatment and supportive therapy as indicated. Following severe exposure the patient should be kept under medical review for at least 48 hours.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

### 5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : Highly flammable liquid and vapour. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
 carbon dioxide  
 carbon monoxide  
 halogenated compounds  
 metal oxide/oxides

### 5.3 Advice for firefighters

- Special precautions 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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- 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 spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour 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 spilt 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). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

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## SECTION 6: Accidental release measures

### 6.3 Methods and materials 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. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach the 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 (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

- 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

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). 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 vapour or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Not applicable.

- 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 between the following temperatures: 6 to 28°C (42.8 to 82.4°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. 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 unlabelled containers. Use appropriate containment to avoid environmental contamination.

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**SECTION 7: Handling and storage**

**Storage hazard class** : Storage class 3, Flammable liquids  
**Huntsman Advanced Materials**

**7.3 Specific end use(s)**

**Recommendations** : Not available.  
**Industrial sector specific solutions** : Not available.

**SECTION 8: Exposure controls/personal protection**

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

**8.1 Control parameters**

Occupational exposure limits

Product/ingredient name	Exposure limit values
ethanol	<b>EH40/2005 WELs (United Kingdom (UK), 8/2007).</b> TWA: 1000 ppm 8 hour(s). TWA: 1920 mg/m <sup>3</sup> 8 hour(s).
methanol	<b>EH40/2005 WELs (United Kingdom (UK), 8/2007). Absorbed through skin.</b> STEL: 333 mg/m <sup>3</sup> 15 minute(s). STEL: 250 ppm 15 minute(s). TWA: 266 mg/m <sup>3</sup> 8 hour(s). TWA: 200 ppm 8 hour(s).
phenol	<b>EH40/2005 WELs (United Kingdom (UK), 8/2007). Absorbed through skin.</b> TWA: 2 ppm 8 hour(s).
formaldehyde ...%	<b>EH40/2005 WELs (United Kingdom (UK), 8/2007).</b> STEL: 2.5 mg/m <sup>3</sup> 15 minute(s). STEL: 2 ppm 15 minute(s). TWA: 2 ppm 8 hour(s). TWA: 2.5 mg/m <sup>3</sup> 8 hour(s).

**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 European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

Derived effect levels

Product/ingredient name	Type	Exposure	Value	Population	Effects
phenol	DNEL	Short term Inhalation	16 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Dermal	1.23 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	8 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Dermal	0.4 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Inhalation	1.32 mg/m <sup>3</sup>	Consumers	Systemic
	DNEL	Long term Oral	0.4 mg/kg bw/day	Consumers	Systemic

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**SECTION 8: Exposure controls/personal protection**

Predicted effect concentrations

Product/ingredient name	Type	Compartment Detail	Value	Method Detail
phenol	PNEC	Secondary Poisoning	-	-
	PNEC	PNECintermittent	0.031 mg/l	Assessment Factors
	PNEC	Fresh water sediment	0.0915 mg/kg	Assessment Factors
	PNEC	Marine	0.00077 mg/l	Assessment Factors
	PNEC	Marine water sediment	0.00915 mg/kg	Assessment Factors
	PNEC	Sewage Treatment Plant	2.1 mg/l	Assessment Factors
	PNEC	Fresh water	0.0077 mg/l	Assessment Factors
	PNEC	Soil	0.136 mg/kg	Assessment Factors

**8.2 Exposure controls**

**Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

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.

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.

**Material of gloves for long term application (BTT>480min):** : Ethyl Vinyl Alcohol Laminate (EVAL), butyl rubber

**Material of gloves for short term/splash application (10min<BTT<480min):** : nitrile rubber

(BTT = Break Through Time)

Use gloves approved to relevant standards e.g. EN 374 (Europe), F739 (US). Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material and dexterity. Always seek advice from glove suppliers. Additional information can be found for instance at [www.gisbau.de](http://www.gisbau.de).

**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** : In case of inadequate ventilation wear respiratory protection. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.



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## SECTION 8: Exposure controls/personal protection

**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** : Liquid.  
**Colour** : Brown.  
**Odour** : of solvent  
**Odour threshold** : Not available.  
**pH** : Not available.  
**Melting point/freezing point** : Not available.  
**Initial boiling point and boiling range** : >36°C  
**Flash point** : Closed cup: 18°C [DIN 51758 EN 22719 (Pensky-Martens Closed Cup)]  
**Evaporation rate** : Not available.  
**Flammability (solid, gas)** : Not available.  
**Burning time** : Not applicable.  
**Burning rate** : Not applicable.  
**Upper/lower flammability or explosive limits** : Not available.  
**Vapour pressure** : <5.9 kPa [20°C]  
**Vapour density** : Not available.  
**Relative density** : Not available.  
**Solubility(ies)**  
**Water solubility** : Insoluble  
20 deg C  
  
**Partition coefficient: n-octanol/water (LogK<sub>ow</sub>)** : Not available.  
**Auto-ignition temperature** : Not available.  
**Decomposition temperature** : >200°C  
**Viscosity** : Dynamic: 30 to 37 mPa·s 25 deg C  
**Explosive properties** : Not available.  
**Oxidising properties** : Not available.

### 9.2 Other information

**Density** : 1 g/cm<sup>3</sup> [25°C (77°F)]

## SECTION 10: Stability and reactivity

**10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.

**10.2 Chemical stability** : The product is stable.

**10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

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## SECTION 10: Stability and reactivity

**10.4 Conditions to avoid** : Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

**10.5 Incompatible materials** : strong acids, strong bases, strong oxidising agents

**10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Decomposition products may include the following materials: Burning produces obnoxious and toxic fumes., Carbon oxides

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Endpoint	Species	Result	Exposure
ethanol	LC50 Inhalation Vapour	Mouse	>114 mg/L	1 hours
	LD50 Oral	Rat	>2000 mg/kg	-
methanol	LC50 Inhalation Dusts and mists	Rat	>83.6 mg/L	4 hours
	LD50 Dermal	Rabbit	15800 mg/kg	-
phenol	LD50 Oral	Rat	5628 mg/kg	-
	LC50 Inhalation Vapour	Rat	316 mg/L	4 hours
	LD50 Dermal	Rat - Female	660 mg/kg	-
	LD50 Oral	Rat - Male, Female	340 to 540 mg/kg	-
formaldehyde	LC50 Inhalation Vapour	Rat	0.35 mg/L	4 hours

#### Acute toxicity estimates

Route	ATE value
Oral	1759.3 mg/kg
Dermal	6667.2 mg/kg
Inhalation (vapours)	59.52 mg/l

#### Irritation/Corrosion

Product/ingredient name	Test	Species	Route of exposure	Result
methanol	-	Rabbit	Skin	Irritant
		Rabbit	Eyes	Severe irritant
phenol	-	Rabbit	Eyes	Corrosive
		Rabbit	Skin	Corrosive
formaldehyde	OECD 404 Acute Dermal Irritation/Corrosion	Rabbit	Skin	Corrosive

#### Conclusion/Summary

**Skin** : No additional information.

**Eyes** : No additional information.

**Respiratory** : No additional information.

#### Sensitiser

Product/ingredient name	Test	Route of exposure	Species	Result
phenol	OECD 406 Skin Sensitization	skin	Guinea pig	Not sensitizing

**Conclusion/Summary** : No additional information.

#### Mutagenicity

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**SECTION 11: Toxicological information**

Product/ingredient name	Test	Result
ethanol	-	Negative

**Conclusion/Summary** : phenol: Mutagenic in mammalian somatic cells, based on *in vivo* studies.

**Carcinogenicity**

Product/ingredient name	Test	Species	Exposure	Result	Route of exposure	Target organs
phenol	OECD 451 Carcinogenicity Studies	Mouse	103 weeks	Negative	Oral	-

**Reproductive toxicity**

Product/ingredient name	Test	Species	Result/Result type	Target organs
phenol	-	Rat	Oral: 120 mg/kg NOAEL	-
	-	Mouse	Oral: 140 mg/kg NOAEL	-

**Conclusion/Summary** : ethanol: Reproductive toxin

**Teratogenicity**

**Conclusion/Summary** : ethanol: May cause harm to the unborn child.

**Specific target organ toxicity (single exposure)**

Product/ingredient name	Category	Route of exposure	Target organs
methanol formaldehyde	Category 1 Category 3	Not determined Inhalation	Not determined Respiratory tract irritation

**Specific target organ toxicity (repeated exposure)**

Product/ingredient name	Category	Route of exposure	Target organs
phenol	Category 2	Not determined	Not determined

**Aspiration hazard**

Not available.

**Information on the likely routes of exposure** : Not available.

**Potential acute health effects**

- Inhalation** : No known significant effects or critical hazards.
- Ingestion** : Harmful if swallowed. Irritating to mouth, throat and stomach.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Eye contact** : Causes serious eye irritation.

**Symptoms related to the physical, chemical and toxicological characteristics**

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

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**SECTION 11: Toxicological information**

Delayed and immediate effects and also 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

Product/ingredient name	Test	Result type	Result	Target organs
formaldehyde	OECD 453 Combined Chronic Toxicity/Carcinogenicity Studies	NOAEL -	82 mg/kg/d	-

Conclusion/Summary : Not available.

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

Carcinogenicity : No known significant effects or critical hazards.

IARC : ethanol 1  
 phenol 3  
 formaldehyde 1

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.

Other information : Not available.

**SECTION 12: Ecological information**

12.1 Toxicity

Product/ingredient name	Test	Endpoint	Exposure	Species	Result
ethanol	-	Acute EC50	48 hours	Daphnia	>1000 mg/L
	-	Acute IC50	72 hours	Algae	>1000 mg/L
	-	Acute LC50	96 hours	Fish	>1000 mg/L
methanol	-	Acute EC50	48 hours	Daphnia	>10000 mg/L
	-	Acute LC50	96 hours	Fish	15400 mg/L
	-	Acute LC50	96 hours	Fish	29400 mg/L
phenol	EPA CFR	Acute EC50	48 hours	Daphnia	3.1 mg/L
	EPA OPPTS	Acute LC50	96 hours	Fish	8.9 mg/L
formaldehyde	OECD 201 Alga, Growth Inhibition Test	Acute EC50	72 hours	Algae	3.48 mg/L
		Acute EC50	3 hours	Bacteria	20.4 mg/L
	OECD 209 Activated Sludge, Respiration Inhibition Test	Acute EC50	120 hours	Bacteria	34.1 mg/L
		Acute EC50	48 hours	Daphnia	5.8 mg/L
	Unknown guidelines Not known	Acute LC50	96 hours	Fish	6.7 mg/L

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**SECTION 12: Ecological information**

**12.2 Persistence and degradability**

Product/ingredient name	Test	Period	Result
ethanol	-	28 days	>60 %
methanol	-	28 days	>60 %
phenol	OECD 301C Ready Biodegradability - Modified MITI Test (I)	100 days	62 %
formaldehyde	Unknown guidelines Not known	4 days	100 %
	OECD 303A Simulation Test - Aerobic Sewage Treatment - Activated Sludge Units	160 days	99.5 %
	OECD 301C Ready Biodegradability - Modified MITI Test (I)	14 days	91 %

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
ethanol	-	-	Readily
methanol	-	-	Readily
formaldehyde	-	-	Readily

**12.3 Bioaccumulative potential**

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
ethanol	-0.31	0.5	low
methanol	0.79	0.2	low
phenol	1.47	-	low
formaldehyde	0.35	-	low

**12.4 Mobility in soil**

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Mobility** : Not available.

**12.5 Results of PBT and vPvB assessment**

Not applicable.

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

**12.7 Other ecological information**

**SECTION 13: Disposal considerations**

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

**13.1 Waste treatment methods**

**Product**

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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.

**Hazardous waste** : Yes.

**European waste catalogue (EWC)**

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### SECTION 13: Disposal considerations

Waste code	Waste designation
07 02 08*	other still bottoms and reaction residues







**Packaging**

**Methods of disposal** : The generation of waste should be avoided or minimised 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. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

### SECTION 14: Transport information

	14.1 UN number	14.2 UN proper shipping name
<b>ADR/RID</b>	UN1866	RESIN SOLUTION
<b>IMDG</b>	UN1866	RESIN SOLUTION (TRIZINC BIS(ORTHOPHOSPHATE)). Marine pollutant (trizinc bis(orthophosphate))
<b>IATA</b>	UN1866	RESIN SOLUTION

	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards	14.6 Special precautions for user	Additional information
<b>ADR/RID</b>	3  	II	Yes.	Not available.	<b>Hazard identification number</b> 33  <b>Special provisions</b> 640D  <b>Tunnel code</b> D/E
<b>IMDG</b>	3  	II	Yes.	Not available.	<b>Emergency schedules (EmS)</b> F-E, _S-E_
<b>IATA</b>	3  	II	Yes.	Not available.	<b>Passenger and Cargo Aircraft</b> Quantity limitation: 5 L Packaging instructions: 353 <b>Cargo Aircraft Only</b> Quantity limitation: 60 L Packaging instructions: 364



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**SECTION 14: Transport information**

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** : Not applicable.

**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 authorisation

Substances of very high concern

None of the components are listed.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.

Other EU regulations

**Europe inventory** : All components are listed or exempted.  
**Black List Chemicals** : Not listed  
**Priority List Chemicals** : Listed  
**Integrated pollution prevention and control list (IPPC) - Air** : Not listed  
**Integrated pollution prevention and control list (IPPC) - Water** : Not listed

Product/ingredient name	Carcinogenic effects	Mutagenic effects	Developmental effects	Fertility effects
phenol formaldehyde ...%	- Carc. 2, H351	Muta. 2, H341 -	- -	- -

National regulations

**References** : The provision of Safety Data Sheets comes under Regulation 6 of CHIP (CHIP is the recognised abbreviation for the Chemicals Hazard Information and Packaging Regulations). This is an addition to the Health and Safety at Work Act 1974.

International regulations

**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.

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**SECTION 16: Other information**

✔ Indicates information that has changed from previously issued version.

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

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

Classification	Justification
Flam. Liq. 2, H225	On basis of test data
Acute Tox. 4, H302	Calculation method
Skin Irrit. 2, H315	Calculation method
Eye Irrit. 2, H319	Calculation method
Skin Sens. 1, H317	Calculation method
Muta. 2, H341	Calculation method
Aquatic Chronic 2, H411	Calculation method

**Full text of abbreviated H statements** : H225 Highly flammable liquid and vapour.  
 H301 Toxic if swallowed.  
 H302 Harmful if swallowed.  
 H311 Toxic in contact with skin.  
 H314 Causes severe skin burns and eye damage.  
 H315 Causes skin irritation.  
 H317 May cause an allergic skin reaction.  
 H318 Causes serious eye damage.  
 H319 Causes serious eye irritation.  
 H331 Toxic if inhaled.  
 H335i May cause respiratory irritation.  
 H341 Suspected of causing genetic defects.  
 H351 Suspected of causing cancer.  
 H370 Causes damage to organs.  
 H373 May cause damage to organs through prolonged or repeated exposure.  
 H400 Very toxic to aquatic life.  
 H410 Very toxic to aquatic life with long lasting effects.  
 H411 Toxic to aquatic life with long lasting effects.

**Full text of classifications [CLP/GHS]** : Acute Tox. 3, H301 ACUTE TOXICITY: ORAL - Category 3  
 Acute Tox. 3, H311 ACUTE TOXICITY: SKIN - Category 3  
 Acute Tox. 3, H331 ACUTE TOXICITY: INHALATION - Category 3  
 Acute Tox. 4, H302 ACUTE TOXICITY: ORAL - Category 4  
 Aquatic Acute 1, H400 AQUATIC TOXICITY (ACUTE) - Category 1  
 Aquatic Chronic 1, H410 AQUATIC TOXICITY (CHRONIC) - Category 1  
 Aquatic Chronic 2, H411 AQUATIC TOXICITY (CHRONIC) - Category 2  
 Carc. 2, H351 CARCINOGENICITY - Category 2  
 Eye Dam. 1, H318 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1  
 Eye Irrit. 2, H319 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2  
 Flam. Liq. 2, H225 FLAMMABLE LIQUIDS - Category 2  
 Muta. 2, H341 GERM CELL MUTAGENICITY - Category 2  
 Skin Corr. 1B, H314 SKIN CORROSION/IRRITATION - Category 1B  
 Skin Irrit. 2, H315 SKIN CORROSION/IRRITATION - Category 2  
 Skin Sens. 1, H317 SKIN SENSITIZATION - Category 1  
 STOT RE 2, H373 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2  
 STOT SE 1, H370 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1  
 STOT SE 3, H335i SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE): INHALATION [Respiratory tract irritation] - Category 3

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**SECTION 16: Other information**

**Full text of abbreviated R phrases** : R11- Highly flammable.  
 R40- Limited evidence of a carcinogenic effect.  
 R68- Possible risk of irreversible effects.  
 R23/24/25- Toxic by inhalation, in contact with skin and if swallowed.  
 R24/25- Toxic in contact with skin and if swallowed.  
 R39/23/24/25- Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.  
 R20/21/22- Harmful by inhalation, in contact with skin and if swallowed.  
 R48/20/21/22- Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.  
 R34- Causes burns.  
 R36/38- Irritating to eyes and skin.  
 R43- May cause sensitisation by skin contact.  
 R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
 R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Full text of classifications [DSD/DPD]** : F - Highly flammable  
 Carc. Cat. 3 - Carcinogen category 3  
 Muta. Cat. 3 - Mutagen category 3  
 T - Toxic  
 C - Corrosive  
 Xn - Harmful  
 Xi - Irritant  
 N - Dangerous for the environment

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