

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2015/830)



FENOLIC RESIN

Version: 1
Revision date: 13/06/2019

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SECTION 1: IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY/UNDERTAKING.

1.1 Product identifier.

Product Name: FENOLIC RESIN

1.2 Relevant identified uses of the mixture and uses advised against.

Industrial use

Uses advised against:

Uses other than those recommended.

1.3 Details of the supplier of the safety data sheet.

Company: **ALDEBARÁN SISTEMAS SL**
Address: C/Jerónimo Zurita, 10, entlo izda, 50001
City: Zaragoza
Province: Zaragoza
Telephone: 0034976796134
E-mail: aldebaran@aldebaransistemas.com

1.4 Emergency telephone number: 0034915620420 (Available 24 hours)

SECTION 2: HAZARDS IDENTIFICATION.

2.1 Classification of the mixture.

In accordance with Regulation (EU) No 1272/2008:
Skin Sens. 1 : May cause an allergic skin reaction.

2.2 Label elements.

Labelling in accordance with Regulation (EU) No 1272/2008:

Pictograms:



Signal Word:

Warning

H statements:

H317 May cause an allergic skin reaction.

P statements:

P261: Avoid breathing dust
P272: Contaminated work clothing should not be allowed out of the workplace
P280: Wear protective gloves/protective clothing/eye protection/face protection
P302+P352: IF ON SKIN: Wash with plenty of water and soap
P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
P501: Dispose of contents/container to local, regional, national and international regulation

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Contains:
hexamethylenetetramine

2.3 Other hazards.

Other dangers that do not lead to a classification:

Hazard not classified: Combustible dust

Combustible dust when split finely and suspended in the air. Fine dust clouds can form explosive mixtures with air. The product can explode if a dust cloud forms and ignites.

Minimize the dust in suspension. Eliminate all sources of fire / ignition, including static discharge near the product / package. Avoid the accumulation of dust. For more information, see section 7 of the HDS on Manipulation.

The handling and / or processing of this material can generate a dangerous dust that can cause mechanical irritation of the eyes, skin, nose and throat.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS.

3.1 Substances.

Not Applicable.

3.2 Mixtures.

Substances posing a danger to health or the environment in accordance with the Regulation (EC) No. 1272/2008, assigned a Community exposure limit in the workplace, and classified as PBT/vPvB or included in the Candidate List:

Identifiers	Name	Concentrate	Classification - Regulation (EC) No 1272/2008 CLP	Type
Index No: 612-101-00-2 CAS No: 100-97-0 EC No: 202-905-8 Registration No: 01-2119474895-20-XXXX	hexamethylenetetramine	10 - 25 %	Skin Sens. 1, H317 Flam.Sol 2, H228	[1]
Index No: 604-001-00-2 CAS No: 108-95-2 EC No: 203-632-7 Registration No: 01-2119471329-32-XXXX	Phenol	0 - 1 %	Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 Skin Corr./Irrit. 1B, H314 Eye Dam./Irrit. 1, H318 Muta. 2, H341 STOT RE 2, H373	[1][2]

Type

[1] Substance classified with a risk to health or the environment

[2] Substance with occupational exposure limits

[3] The substance meets the PBT criteria according to Regulation (EC) no. 1907/2006, Annex XIII

[4] The substance meets the criteria of mPmB according to Regulation (EC) no. 1907/2006, Annex XIII

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

There is no additional ingredient present that, under the current knowledge of the supplier and in the applicable concentrations, is classified as a risk to health or the environment and therefore should be reported in this section.

Occupational exposure limits, if any, are listed in section 8. (*) *The complete text of the H phrases is given in section 16 of this Safety Data Sheet.*

[1] *Substance with a Community workplace exposure limit (see section 8.1).*

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SECTION 4: FIRST AID MEASURES.

4.1 Description of first aid measures.

Protection of first aid personnel: No action shall be taken that implements any personal risk or that does not include adequate training. It can be dangerous for the person providing help to give mouth-to-mouth breathing. Wash contaminated clothing with water before removing it, or wear gloves.

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.

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.

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. 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 significant effects or critical risks are known
Inhalation:	No significant effects or critical risks are known
Skin contact:	Causes skin irritation. May cause an allergic skin reaction.
Ingestion :	No significant effects or critical risks are known

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.

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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.

The product does not present any particular risk in case of fire.

5.1 Extinguishing media.

Suitable extinguishing media:

Use water spray or mist, dry chemical, foam or CO2

Unsuitable extinguishing media:

Do not use water jet.

5.2 Special hazards arising from the mixture.

Special risks.

Hazards from the substance or mixture: Combustible solid that burns. Fine dust clouds may form explosive mixtures with air. Hazardous thermal decomposition products: Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides

5.3 Advice for firefighters.

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.

Fire protection equipment.

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.

Additional information.

Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions). The ATEX Directive defines combustible powders as less than 500 microns in diameter. When processed with flammable liquids/vapors/mists, ignitable (hybrid) mixtures may be formed with combustible dusts. Ignitable mixtures will increase the rate of explosion pressure rise and the MIE will be lower than the pure dust in air mixture. The Lower Explosive Limit (LEL) of the vapor/dust mixture will be lower than the individual LELs for the vapors/mists or dusts. See NFPA 77 for additional guidance.

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. Minimize airborne dust and eliminate all fire/ignition sources. Clean up spill as soon as possible using procedures described below. Avoid breathing dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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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). 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:	Move containers from spill area. Do not use air hoses for cleaning. Minimize dry sweeping to avoid generation of dust clouds. Vacuum dust-accumulating surfaces and remove to a chemical disposal area. Use spark-proof tools and explosion-proof equipment. Vacuums with explosion-proof motors should be used. Dispose of via a licensed waste disposal contractor.
Large spill:	Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid creating dusty conditions and prevent wind dispersal. Do not use air hoses for cleaning. Minimize dry sweeping to avoid generation of dust clouds. Vacuum dust-accumulating surfaces and remove to a chemical disposal area. Use spark-proof tools and explosion-proof equipment. Vacuums with explosion-proof motors should be used. Dispose of via a licensed waste disposal contractor. Note: see section 1 of SDS for emergency contact information and section 13 of SDS 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.

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 the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

COMBUSTIBLE DUST HANDLING PROCEDURES:

Combustible dusts at sufficient concentrations can form explosive mixtures with air. High dust concentrations should be avoided

Follow US NFPA Standard 654, "Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids," UK HSE Guidance HSG 103, approved Codes of Practice (ACOPS) established for Explosive Atmospheres under the ATEX Directive 1999/92/EC for worker protection and ATEX Directive 94/9/EC that regulates equipment and protection systems used in potentially explosive atmospheres or other national guidance on safe handling of combustible dusts. Train workers in the recognition and prevention of hazards associated with combustible dust in the plant.

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Minimize airborne dust and eliminate all ignition sources. Keep away from heat, hot surfaces, sparks, and flame. Establish good housekeeping practices. Remove dust accumulations on a regular basis by vacuuming or gentle sweeping to avoid creating dust clouds. Use continuous suction at points of dust generation to capture and minimize the accumulation of dusts. Particular attention should be given to overhead and hidden horizontal surfaces to minimize the probability of a "secondary" explosion. According to NFPA Standard 654, dust layers 1/32 in.(0.8 mm) thick can be sufficient to warrant immediate cleaning of the area.

Control sources of static electricity. This product or the package itself can accumulate static charges, and static discharge can be a source of ignition. Solids handling systems must be designed in accordance with applicable NFPA standards (including 654 and 77) and other national guidance. Do not empty directly into flammable solvents or in the presence of flammable vapors. The operator, the packaging container and all equipment must be grounded with electrical bonding and grounding systems. Plastic bags and plastics cannot be grounded, and antistatic bags do not completely protect against development of static charges.

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 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 of SDS) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep away from heat, hot surfaces, sparks and flame. 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).

Not available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION.

8.1 Control parameters.

Work exposure limit for:

Product/ingredient name	Exposure limit values
Phenol	<p>ZEU_OEL161 (2009-12-19) Time Weighted Average (TWA) 8 mg/m³ , 2 ppm</p> <p>ZEU_OEL161 (2009-12-19) Pollutant concentration that should not be exceeded during working hours and which workers are believed to be exposed during a period of 15 minutes maximum, without experiencing: a) irritation. b) chronic or irreversible tissue damage. c) dependent toxic effects of exposure rate. d) Narcosis of sufficient magnitude to increase susceptibility to accidents. e) The reduction of ability to get to safety by their own means. 16 mg/m³ , 4 ppm</p> <p>Ministero della Salute (2004-03-01) Time Weighted Average (TWA) 7,8 mg/m³ , 2 ppm</p>

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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
Phenol	DNEL	Long term Inhalation	8,0 mg/m ³	Workers	Systemic
Phenol	DNEL	Long term Dermal	0,4 mg/kg bw/day	General	Systemic
Phenol	DNEL	Long term Oral	0,4 mg/kg bw/day	General	Systemic
Phenol	DNEL	Long term Inhalation	1,32 mg/m ³	General	Systemic

DNEL/DMEL Summary : Not available

PNECs

Product/ingredient name	Type	CompartmentDetail	Value	Method Detail
Phenol	PNEC	Fresh water	7,7 µ g/l	
Phenol	PNEC	Marine	0,77 µ g/l	
Phenol	PNEC	Sewage Treatment Plant	2,1 mg/l	
Phenol	PNEC	Fresh water sediment	91,5 µ g/kg dwt	
Phenol	PNEC	Marine water sediment	9,15 µ g/kg dwt	
Phenol	PNEC	Soil	136 µ g/kg dwt	

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.

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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: chemical splash goggles.

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., For PPE selection see National Fire Protection Association (NFPA) 2113, Standard on Selection, Care, Use and Maintenance of Flame- Resistant Garments for Protection of Industrial Personnel Against Flash Fire.

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

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. 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. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter, ABEK-P3 (EN14387) Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. 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.

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.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES.

9.1 Information on basic physical and chemical properties.

Appearance: Powder
Colour: yellowish
Odour: characteristic
Odour threshold: N.A./N.A.
pH: 6-8 (20%)
Melting point: N.A./N.A.
Boiling Point: N.A./N.A.
Flash point: N.A./N.A.
Evaporation rate: N.A./N.A.
Inflammability (solid, gas): N.A./N.A.
Lower Explosive Limit: N.A./N.A.
Upper Explosive Limit: N.A./N.A.
Vapour pressure: N.A./N.A.
Vapour density: N.A./N.A.
Relative density: N.A./N.A.
Solubility: N.A./N.A.
Liposolubility: N.A./N.A.
Hydrosolubility: N.A./N.A.
Partition coefficient (n-octanol/water): N.A./N.A.
Auto-ignition temperature: N.A./N.A.
Decomposition temperature: N.A./N.A.
Viscosity: N.A./N.A.
Explosive properties: N.A./N.A.
Oxidizing properties: N.A./N.A.
N.A./N.A. = Not Available/Not Applicable due to the nature of the product

9.2 Other information.

Pour point: N.A./N.A.
Blink: N.A./N.A.
Kinematic viscosity: N.A./N.A.
N.A./N.A. = Not Available/Not Applicable due to the nature of the product

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.

Under normal conditions of storage and use, hazardous reactions will not occur

10.4 Conditions to avoid.

Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Prevent dust accumulation. See Section 7 Handling.

10.5 Incompatible materials.

Reactive or incompatible with the following materials:
acids alkalis

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10.6 Hazardous decomposition products.

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

SECTION 11: TOXICOLOGICAL INFORMATION.

11.1 Information on toxicological effects.

Acute toxicity:

Product/Ingredient name	Result	Species	Dose	Exposure
Hexametilentetramina				
	LD50 Oral	Rat	> 20.000 mg/kg	
	LD50 Dermal	Rat	> 2.000 mg/kg	
Fenol				
	LD50 Oral	Rat	317 mg/kg	
Remarks-Oral	In studies conducted in a manner similar to current O.E.C.D. test guideline, the rat LD50 ranged 340 - 650 mg/kg of body wt			
	LC50 Inhalation	Rat	0,316 mg/l	8h
	LD50 Dermal	Rabbit	630 mg/kg	
Remarks - Dermal	In studies conducted in a manner similar to the current O.E.C.D. test guideline, the rat dermal LD50 ranged 525 - 707 mg/kg of body wt and the rabbit LD50 was 850 mg/kg of body wt.			

Conclusion/Summary : Not available

Acute toxicity estimates

Not available

Skin corrosion/irritation:

Route	ETA value (acute toxicity estimate according to GHS)
Oral	10.101 mg/kg
Route	ETA value (acute toxicity estimate according to GHS)
Dermal	63.636,4 mg/kg
Route	ETA value (acute toxicity estimate according to GHS)
Inhalation (vapour)	303 mg/kg

Conclusion/Summary

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

respiratory or skin sensitisation:

Product/ingredient name	Route of exposure	Species	Result
Phenol	Skin	-	-

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Remarks:	Not sensitizing in an O.E.C.D. test guideline no. 406 guinea pig Buehler study. However, the Challenge dose was only 1%. Not sensitizing in a human Maximization test conducted with an induction dose of 2% and a Challenge dose of 1%.
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Conclusion/Summary

Skin : Not available
Respiratory : Not available

germ cell mutagenicity;

Product/ingredient name	Test	Experiment	Result
Phenol	-	; -	-
Remarks:	Not a bacterial mutagen in O.E.C.D. test guideline no. 471 Ames/Salmonella mutation assays conducted up to cytotoxic dose levels with and without S9 metabolic activation. Positive for induction of micronuclei (chromosome damage) in Chinese hamster ovary (CHO) cells at 3-7-fold the control background frequency when tested to cytotoxic dose levels. Positive for the induction of chromosome aberrations in CHO cells only with S9 metabolic activation. Induced a 2-3-fold increase of the gene-mutation frequency in independent studies in mouse lymphoma cells with and without S9 metabolic activation. Evidence for the induction of sister-chromatid-exchanges (SCEs), DNA strand breaks and DNA adducts also reported. In independent mouse bone marrow micronucleus studies, weakly (statistically) positive by I.P. injection, but not by oral gavage at myelotoxic doses of approximately 300 mg/kg/day. Research suggest that the mechanism of micronucleus formation may involve hypothermia a near lethal doses. No DNA adducts detected in rat bone marrow or liver following 4 doses of 75 mg/kg/day. Currently classified as Mutagen Category 2.		

Conclusion/Summary: Not available

carcinogenicity;

Product/ingredient name	Result	Species	Dose	Exposure
Phenol	- - - - -	-		
Remarks:	In long-term oral drinking water cancer bioassays (NIH/NCI) in rats and mice no evidence of carcinogenicity in mice and female rats. The increased tumor incidence observed in male rats was considered not treatment related. No evidence of tumors in wild-type and transgenic TG.AC mice following 20 weeks of treatment (2 days/week). In mice treated twice/week with 25 ul 20% phenol (corrosive) for 32 weeks 7/18 developed skin papillomas. Limited evidence for tumor promoting activity on mouse skin at corrosive 20% concentrations.			

Conclusion/Summary : Not available

reproductive toxicity;

Product/ingredient name	Maternal toxicity	Fertility	Development toxin	Species	Dose	Exposure
Phenol	-	-	-	-	-	-

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Remarks:	In an O.E.C.D. test guideline no. 416 rat two-generation oral drinking water study the adult and reproductive NOAEL was approximately 70 mg/kg/day. There was a significant group mean reduction of body weight, feed consumption and water consumption at the high concentration of 5000 ppm (~ 300 mg/kg/day) in both generations. Group mean pup body weight and survival were significantly reduced at 5000 ppm. These adverse findings are believed to be to the drinking water palitability of the high dose phenol.
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Conclusion/Summary: Not available

Teratogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Phenol	- - -	-	-	-
Remarks:	O.E.C.D. test guideline no. 414 developmental toxicity studies were conducted in the rat and mouse by oral gavage. The NOAEL for both maternal and developmental toxicity in the mouse was 140 mg/kg/day. There were maternal mortalities and a significant reduction in mean maternal body weight at 280 mg/kg/day. Also, clinical signs including tremors and ataxia were observed at 280 mg/kg/day. Mean fetal body weight was significantly reduced at the high dose of 280 mg/kg/day. In the rat the maternal NOAEL was 60 mg/kg/day due to significantly reduced mean body weight at 120 and 360 mg/kg/day. The developmental effects NOAEL was 120 mg/kg/day due to a significant reduction in mean fetal body weight and ossification sites at the high dose of 360 mg/kg/day. These data suggest a significant role for maternal toxicity in the adverse developmental effects observed.			

Conclusion/Summary: Not available

STOT-single exposure;

Not available

STOT-repeated exposure;

Product/ingredient name	Category	Route of exposure	Target organs
Phenol	Category 2		gastrointestinal tract kidneys eyes heart lungs liver skin

j) aspiration hazard;

Not available

Potential acute health effects

Eye contact: Causes serious eye irritation.

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Inhalation: Exposure to degradation products can lead to health risks. Serious effects may take time to appear after exposure.

Skin contact: It causes skin irritation. May produce an allergic reaction on the skin.

Ingestion: Exposure to decomposition products may cause a health hazard.
Irritating to work, throat and stomach.

Symptoms related to physical, chemical and toxicological characteristics

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.

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

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.

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.

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Product/ingredient name	Result	Species	Exposure
methenamine			
	Acute LC50 49.800.000 µ g/l Fresh water	Fish - Fathead minnow	96 h
	Acute EC50 36.000.000 µ g/l Fresh water	Aquatic invertebrates. Water flea	48 h
Phenol			
	Acute LC50 8,9 mg/l Fresh water	Fish - Rainbow trout, donaldson trout	96 h
	Acute NOEC 0,077 mg/l Fresh water	Fish - Carp	60 d
	Acute EC50 3,1 mg/l Fresh water	Aquatic invertebrates. Water flea	48 h
	Acute NOEC 0,16 mg/l Fresh water	Aquatic invertebrates. Water flea	16 d
	Acute EC50 61,1 mg/l Fresh water	Aquatic plants - Microalgae	96 h
	Acute EC50 21 mg/l Fresh water	Micro-organism - Soil organisms	24 h
	Chronic NOEC 2,2 mg/l Fresh water	Aquatic invertebrates. Water flea	2 d

Conclusion/Summary : Not available

12.2 Persistence and degradability.

Product/ingredient name	Test	Result	Dose	Inoculum
Phenol		-		
Remarks:	In two independent O.E.C.D. test guideline no. 301C Modified MITI studies the level of biodegradation was 62% within 4.2 days and 85% after 14 days of contact. In an O.E.C.D. test guideline no. 302B study the level of biodegradation was 100% after 6 days.			

Conclusion/Summary : **Not available**

12.3 Bioaccumulative potential.

Product/ingredient name	LogPow	BCF	Potential
methenamine	-2,18	-	low
Phenol	1,5	17,5	low

Not available

12.4 Mobility in soil.

Soil/water partition coefficient (KOC) Not available

Mobility Not available

12.5 Results of PBT and vPvB assessment.

PBT:
P: Not available
B: Not available
T: Not available

vPv: vP: Not available

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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.

Transportation is not dangerous. In case of road accident causing the product's spillage, proceed in accordance with point 6.

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14.1 UN number.

Transportation is not dangerous.

14.2 UN proper shipping name.

Description:

ADR: Transportation is not dangerous.

IMDG: Transportation is not dangerous.

ICAO/IATA: Transportation is not dangerous.

14.3 Transport hazard class(es).

Transportation is not dangerous.

14.4 Packing group.

Transportation is not dangerous.

14.5 Environmental hazards.

Transportation is not dangerous.

14.6 Special precautions for user.

Transportation is not dangerous.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code.

Transportation is not dangerous.

SECTION 15: REGULATORY INFORMATION.

15.1 Safety, health and environmental regulations/legislation specific for the 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 Pre-Registered and/or 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: Not applicable

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 (Annex I - Part 2)

Not listed

EU - Prior Informed Consent. List of chemicals subject to the international PIC procedure (Annex I - Part 3)

Not listed

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Product/ingredient name	Carcinogenic effects	Mutagenic effects	Developmental effects	Fertility effects
Phenol		Muta.Cat.3; R68 Muta. 2, H341		

Seveso II Directive

This product is controlled under the Seveso II Directive.

National regulations

International regulations

International list:

- 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.
- United States inventory (TSCA 8b) All components are listed or exempted.

Chemical Weapons Convention List Schedule I Chemicals :
Chemical Weapons Convention List Schedule II Chemicals
Chemical Weapons Convention List Schedule III Chemicals

Not listed
Not listed
Not listed

15.2 Chemical safety assessment.

This product contains substances for which Chemical Safety Assessments are still required

SECTION 16: OTHER INFORMATION.

Complete text of the H phrases that appear in section 3:

H228	Flammable solid
H301 (oral)	Toxic if swallowed
H311 (dermal)	Toxic in contact with skin
H314	Cause severe skin burns and eye damage.
H317	MAY cause an allergic skin reaction
H318	Cause serious eye damage
H331 (inhalation)	Toxic if inhaled
H341	Suspected of causing genetic damage.
H373	May cause damage to organs through prolonged or repeated exposure

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It is advisable to carry out basic training with regard to health and safety at work in order to handle this product correctly.

Abbreviations and acronyms used:

- BCF: Bioconcentration factor.
- CEN: European Committee for Standardization.
- DMEL: Derived Minimal Effect Level, exposure level corresponding to a low risk, that risk should be considered a tolerable minimum.
- DNEL: Derived No Effect Level, level of exposure to the substance below which adverse effects are not anticipated.
- EC50: Half maximal effective concentration.
- PPE: Personal protection equipment.
- LC50: Lethal concentration, 50%.
- LD50: Lethal dose, 50%.
- Log Pow: Logarithm of the partition octanol-water.
- NOEC: No observed effect concentration.
- PNEC: Predicted No Effect Concentration, concentration of the substance below which adverse effects are not expected in the environmental compartment.

Key literature references and sources for data:

<http://eur-lex.europa.eu/homepage.html>

<http://echa.europa.eu/>

Regulation (EU) 2015/830.

Regulation (EC) No 1907/2006.

Regulation (EU) No 1272/2008.

The information given in this Safety Data Sheet has been drafted in accordance with COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

The information in this Safety Data Sheet on the Preparation is based on current knowledge and on current EC and national laws, as far as the working conditions of the users is beyond our knowledge and control. The product must not be used for purposes other than those that are specified without first having written instructions on how to handle. It is always the responsibility of the user to take the appropriate measures in order to comply with the requirements established by current legislation. The information contained in this Safety Sheet only states a description of the safety requirements for the preparation, and it must not be considered as a guarantee of its properties.