## **SAFETY DATA SHEET**



**TEKNODUR COMBI 3560-311** 

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

#### 1.1 Product identifier

Product name : TEKNODUR COMBI 3560-311

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

Product description : Paint.

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

Teknos Group Oy, Takkatie 3, FI-00370 HELSINKI, FINLAND. Tel. +358 9 506 091.

e-mail address of person responsible for this SDS

: prod-safe@teknos.com

## **National contact**

Teknos (UK) Limited, Unit E1, Heath Farm, Banbury Road, Swerford, Oxfordshire OX7 4BN, United Kingdom. Tel. +44 (0) 1608 683 494.

#### 1.4 Emergency telephone number

#### **National advisory body/Poison Centre**

Telephone number : NHS: 111 (for advise), 999 (for emergency).

#### **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. 3, H226 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 2, H411

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the 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** : H226 - Flammable liquid and vapour.

H318 - Causes serious eye damage.

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction.

H411 - Toxic to aquatic life with long lasting effects.

**Precautionary statements** 

General : Not applicable.

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## **SECTION 2: Hazards identification**

**Prevention**: P280 - Wear protective gloves. Wear eye or face protection.

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition

sources. No smoking.

P273 - Avoid release to the environment.

Response : P303 + P353 - IF ON SKIN (or hair): Rinse skin with water or shower.

P305 + P310 - IF IN EYES: Immediately call a POISON CENTER or physician.

Storage : P403 - Store in a well-ventilated place.

Disposal : P501 - Dispose of contents and container in accordance with all local, regional,

national and international regulations.

**Hazardous ingredients** : tetraethylN,N'-(methylenedicyclohexane-4,1-diyl)bis-dl-aspartate

1,3,3-trimethyl-N-(2-methylpropylidene)-5-[(2-methylpropylidene)amino]-

cyclohexanemethylamine

bis(4-(1,2-bis(ethoxycarbonyl)ethylamino)-3-methylcyclohexyl)methane

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,

6,6-pentamethyl-4-piperidyl sebacate

Supplemental label

elements

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles .

2.3 Other hazards

Other hazards which do not result in classification

: None known.

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

#### 3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Туре
tetraethylN,N'- (methylenedicyclohexane-4,1-diyl) bis-dl-aspartate	REACH #: 01-0000017556-64 EC: 429-270-1 CAS: 136210-30-5 Index: 607-521-00-8	≥10 - ≤25	Skin Sens. 1, H317 Aquatic Chronic 3, H412	[1]
n-Butyl acetate	REACH #: 01-2119485493-29 EC: 204-658-1 CAS: 123-86-4 Index: 607-025-00-1	≥10 - <20	Flam. Liq. 3, H226 STOT SE 3, H336 EUH066	[1] [2]
Trizinc bis(orthophosphate)	REACH #: 01-2119485044-40 EC: 231-944-3 CAS: 7779-90-0 Index: 030-011-00-6	≤10	Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	[1]
1,3,3-trimethyl-N- (2-methylpropylidene)-5-[ (2-methylpropylidene)amino]- cyclohexanemethylamine	REACH #: 01-2119978283-28 EC: 259-393-4 CAS: 54914-37-3	<5	Skin Corr. 1C, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317	[1]
Xylene	REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7 Index: 601-022-00-9	≤5	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 (oral) Asp. Tox. 1, H304	[1] [2]
bis(4-(1,2-bis(ethoxycarbonyl)	REACH #:	≤3	Skin Sens. 1, H317	[1]

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SECTION 3: Composition/information on ingredients					
ethylamino)-3-methylcyclohexyl) methane	01-0000015937-58 EC: 412-060-9 CAS: 136210-32-7 Index: 607-350-00-9		Aquatic Chronic 3, H412		
1-nitropropane	REACH #: 01-2119475519-25 EC: 203-544-9 CAS: 108-03-2 Index: 609-001-00-6	≤3	Flam. Liq. 3, H226 Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 3, H331	[1]	
ethylbenzene	REACH #: 01-2119489370-35 EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4	≤3	Flam. Liq. 2, H225 Acute Tox. 4, H332 STOT RE 2, H373 (hearing organs) Asp. Tox. 1, H304	[1] [2]	
nitroethane	REACH #: 01-2119966158-27 EC: 201-188-9 CAS: 79-24-3 Index: 609-035-00-1	<1	Flam. Liq. 3, H226 Acute Tox. 4, H302 Acute Tox. 3, H331 Aquatic Chronic 3, H412	[1]	
Reaction mass of Bis(1,2,2,6, 6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6, 6-pentamethyl-4-piperidyl sebacate	REACH #: 01-2119491304-40	≤0.3	Skin Sens. 1A, H317 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	[1]	
Quaternary ammonium compounds, coco alkylethyldimethyl, Et sulfates	REACH #: 01-2119977130-42 EC: 269-662-8 CAS: 68308-64-5	≤0.3	Acute Tox. 4, H302 Acute Tox. 3, H311 Skin Corr. 1C, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=1)	[1]	
Zinc oxide	REACH #: 01-2119463881-32 EC: 215-222-5 CAS: 1314-13-2 Index: 030-013-00-7	≤0.3	Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	[1]	
			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, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

- [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
- [5] Substance of equivalent concern

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

#### **SECTION 4: First aid measures**

#### 4.1 Description of first aid measures

**Eye contact** 

: Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a physician.

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#### **SECTION 4: First aid measures**

#### Inhalation

: Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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. 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**

Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

#### Ingestion

: Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a 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. 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

#### **Over-exposure signs/symptoms**

**Eye contact**: Adverse symptoms may include the following:

pain watering redness

Inhalation : No specific data.

**Skin contact**: Adverse symptoms may include the following:

pain or irritation

redness

blistering may occur

**Ingestion** : Adverse symptoms may include the following:

stomach pains

## 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 dry chemical, CO<sub>2</sub>, water spray (fog) or foam.

**Unsuitable extinguishing** 

media

: Do not use water jet.

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## **SECTION 5: Firefighting measures**

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

Hazards from the substance or mixture

: 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 combustion products

: In a fire, decomposition may produce toxic gases/fumes.

#### 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. 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. Do not breathe 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.

#### 6.3 Methods and material for containment and cleaning up

**Small spill** 

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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. Use spark-proof tools and explosion-proof equipment. 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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt 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.

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## **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. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. 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.

## 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) and food and drink. 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.

	Notification and MAPP threshold	Safety report threshold
P5c: Flammable liquids 2 and 3 not falling under P5a or P5b E2: Hazardous to the aquatic environment - Chronic 2	5000 200	50000 500

#### 7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific : Not available.

solutions

## SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

#### 8.1 Control parameters

#### **Occupational exposure limits**

n-Butyl acetate EH40/2005 WELs (United Kingdom (UK), 12/2011).

STEL: 966 mg/m³ 15 minutes. STEL: 200 ppm 15 minutes. TWA: 724 mg/m³ 8 hours. TWA: 150 ppm 8 hours.

Xylene EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed

through skin.

STEL: 441 mg/m³ 15 minutes. TWA: 50 ppm 8 hours. TWA: 220 mg/m³ 8 hours. STEL: 100 ppm 15 minutes.

ethylbenzene EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed

through skin.

STEL: 552 mg/m³ 15 minutes. STEL: 125 ppm 15 minutes.

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## SECTION 8: Exposure controls/personal protection

TWA: 100 ppm 8 hours. TWA: 441 mg/m<sup>3</sup> 8 hours.

## procedures

**Recommended monitoring**: 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
Quaternary ammonium compounds, coco alkylethyldimethyl, Et sulfates	DNEL	Long term Dermal	4.7 mg/kg bw/day	Workers	-
	DNEL	Long term Inhalation	3.32 mg/m³	Workers	-
	DNEL	Long term Dermal	2.83 mg/ kg bw/day	Consumers	-
	DNEL	Long term Inhalation	0.98 mg/m³	Consumers	-
	DNEL	Long term Oral	2.83 mg/ kg bw/day	Consumers	-

#### **PNECs**

Product/ingredient name	Compartment Detail	Value	Method Detail
Quaternary ammonium compounds, coco alkylethyldimethyl, Et sulfates	Fresh water	0.00068 mg/l	-
	Fresh water sediment Sewage Treatment Plant	9.27 mg/kg dwt 0.9 mg/l	-

#### 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. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

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#### **Skin protection**

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## **SECTION 8: Exposure controls/personal 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.

Recommendations: Wear suitable gloves tested to EN374.

< 1 hour (breakthrough time): Nitrile gloves. thickness > 0.3 mm

1 - 4 hours (breakthrough time): polyvinyl alcohol (PVA) thickness > 0.3 mm or

4H / Silver Shield® gloves.

> 8 hours (breakthrough time): Viton® thickness > 0.3 mm gloves Wash hands before breaks and immediately after handling the product.

#### **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. Refer to European Standard EN 14605 for further information on material and design requirements and test methods. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

#### 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.

Filter type: A

spray application Filter type: A P

## **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: VariousOdour: Slight

Odour threshold : Not available.

pH : Not available.

Melting point/freezing point : Not available.

Initial boiling point and : Not available.

boiling range

Flash point : Closed cup: 25°C : Not available. **Evaporation rate** Flammability (solid, gas) : Not available. Upper/lower flammability or : Lower: 0.8% **explosive limits** Upper: 11.3% : Not available. Vapour pressure Vapour density Not available. **Density** : 1.6 kg/l Solubility(ies) : Not available. Partition coefficient: n-octanol/: Not available. water

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## **SECTION 9: Physical and chemical properties**

Auto-ignition temperature: Not available.Decomposition temperature: Not available.Viscosity: Not available.Explosive properties: Not available.Oxidising properties: Not available.

9.2 Other information

VOC : 312 g/l
Solubility in water : Not available.

No additional information.

## **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.

**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 : Reactive or incompatible with the following materials:

oxidizing materials

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
n-Butyl acetate	LC50 Inhalation Gas.	Rat	390 ppm	4 hours
•	LD50 Dermal	Rabbit	14112 mg/kg	-
	LD50 Oral	Rat	10760 mg/kg	-
Xylene	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
•	LD50 Oral	Rat	4300 mg/kg	-
1-nitropropane	LD50 Oral	Rat	455 mg/kg	-
ethylbenzene	LD50 Dermal	Rabbit	>5000 mg/kg	-
•	LD50 Oral	Rat	3500 mg/kg	-
nitroethane	LD50 Oral	Rat	1100 mg/kg	-
Reaction mass of Bis(1,2,2,	LD50 Oral	Rat	3230 mg/kg	-
6,6-pentamethyl-4-piperidyl)				
sebacate and Methyl 1,2,2,				
6,6-pentamethyl-4-piperidyl				
sebacate				

#### **Conclusion/Summary**

: Based on available data, the classification criteria are not met.

#### **Acute toxicity estimates**

Route	ATE value
Oral	30957.3 mg/kg
Dermal	16103.3 mg/kg
Inhalation (gases)	108902.5 ppm
Inhalation (vapours)	142 mg/l

#### **Irritation/Corrosion**

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## **SECTION 11: Toxicological information**

Product/ingredient name	Result	Species	Score	Exposure	Observation
n-Butyl acetate	Eyes - Moderate irritant	Rabbit	-	100	-
				milligrams	
	Skin - Moderate irritant	Rabbit	-	24 hours 500	-
				milligrams	
Xylene	Eyes - Mild irritant	Rabbit	-	87 milligrams	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5	-
				milligrams	
	Skin - Mild irritant	Rat	-	8 hours 60	-
				microliters	
	Skin - Moderate irritant	Rabbit	-	24 hours 500	-
				milligrams	
	Skin - Moderate irritant	Rabbit	-	100 Percent	-
ethylbenzene	Eyes - Severe irritant	Rabbit	-	500	-
				milligrams	
	Skin - Mild irritant	Rabbit	-	24 hours 15	-
				milligrams	
Zinc oxide	Eyes - Mild irritant	Rabbit	-	24 hours 500	-
	-			milligrams	
	Skin - Mild irritant	Rabbit	-	24 hours 500	-
				milligrams	

**Conclusion/Summary** 

**Sensitisation** 

: Causes skin irritation.

**Conclusion/Summary** 

: May cause an allergic skin reaction.

**Mutagenicity** 

Conclusion/Summary

: Based on available data, the classification criteria are not met.

**Carcinogenicity** 

**Conclusion/Summary** 

: Based on available data, the classification criteria are not met.

**Reproductive toxicity** 

**Conclusion/Summary** 

: Based on available data, the classification criteria are not met.

**Teratogenicity** 

Conclusion/Summary

: Based on available data, the classification criteria are not met.

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

Product/ingredient name	Category	Route of exposure	Target organs
n-Butyl acetate Xylene		, , ,	Narcotic effects Respiratory tract irritation

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

Product/ingredient name	Category	Route of exposure	Target organs
Xylene ethylbenzene	Category 2 Category 2	Oral Not determined	Not determined hearing organs

#### **Aspiration hazard**

Product/ingredient name	Result
Xylene	ASPIRATION HAZARD - Category 1
ethylbenzene	ASPIRATION HAZARD - Category 1

Information on likely routes

of exposure

: Not available.

Potential acute health effects

**Eye contact** : Causes serious eye damage.

Inhalation : No known significant effects or critical hazards.

**Skin contact**: Causes skin irritation. May cause an allergic skin reaction.

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## **SECTION 11: Toxicological information**

**Ingestion** : No known significant effects or critical hazards.

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

**Eye contact**: Adverse symptoms may include the following:

watering redness

Inhalation : No specific data.

**Skin contact**: Adverse symptoms may include the following:

pain or irritation

redness

blistering may occur

Ingestion : Adverse symptoms may include the following:

stomach pains

### 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 : N

: Not available.

**Long term exposure** 

**Potential immediate** 

: Not available.

effects

Potential delayed effects : Not available.

#### Potential chronic health effects

Not available.

**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: No known significant effects or critical hazards.

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.

No known significant effects or critical hazards.

Other information : Not available.

## **SECTION 12: Ecological information**

#### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
tetraethylN,N'- (methylenedicyclohexane-4, 1-diyl)bis-dl-aspartate	Acute EC50 113 mg/l	Algae	72 hours
	Acute EC50 88.6 mg/l	Daphnia	48 hours
	Acute LC50 66 mg/l	Fish	96 hours
n-Butyl acetate	Acute LC50 32 mg/l Marine water	Crustaceans - Artemia salina	48 hours
	Acute LC50 18000 μg/l Fresh water	Fish - Pimephales promelas	96 hours
Trizinc bis(orthophosphate)	Acute EC50 0.29 mg/l	Algae - Selenastrum capricornutum	72 hours
	Acute EC50 0.89 mg/l	Crustaceans - Ceriodaphnia dubia	48 hours
	Acute LC50 0.33 to 6.06 mg/l	Fish - Oncorhynchus mykiss	96 hours
Xylene	Acute LC50 8500 μg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
	Acute LC50 13400 µg/l Fresh water	Fish - Pimephales promelas	96 hours
bis(4-(1,2-bis	Acute EC50 113 mg/l	Algae	72 hours

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## **SECTION 12: Ecological information**

(ethoxycarbonyl)ethylamino) -3-methylcyclohexyl) methane			
	Acute EC50 88.6 mg/l	Daphnia	48 hours
	Acute LC50 66 mg/l	Fish	96 hours
ethylbenzene	Acute EC50 4600 µg/l Fresh water	Algae - Pseudokirchneriella	72 hours
		subcapitata	
	Acute EC50 3600 μg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 6530 μg/l Fresh water	Crustaceans - Artemia sp Nauplii	48 hours
	Acute EC50 2930 μg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 4200 μg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	EC50 1.68 mg/l	Aquatic plants - Desmodesmodus subspicatus	72 hours
	Acute LC50 0.9 mg/l	Fish - Brachydanio rerio	96 hours
	Chronic NOEC 1 mg/l	Daphnia	21 days
Zinc oxide	Acute IC50 1.85 mg/l Marine water	Algae - Skeletonema costatum	96 hours
	Acute IC50 46 μg/l Fresh water	Algae - Pseudokirchneriella subcapitata - Exponential	72 hours
	Acute LC50 98 μg/l Fresh water	growth phase Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 1.1 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours

**Conclusion/Summary** 

: Toxic to aquatic life with long lasting effects.

#### 12.2 Persistence and degradability

**Conclusion/Summary**: This product has not been tested for biodegradation.

## 12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
tetraethylN,N'- (methylenedicyclohexane-4, 1-diyl)bis-dl-aspartate	5.16	0.25	low
n-Butyl acetate	2.3	-	low
Xylene	3.12	8.1 to 25.9	low
bis(4-(1,2-bis (ethoxycarbonyl)ethylamino) -3-methylcyclohexyl)	5.99	0.25	low
methane 1-nitropropane	0.79	1.3	low
ethylbenzene nitroethane Zinc oxide	3.6 0.18	-	low low high

## 12.4 Mobility in soil

Soil/water partition : Not available. coefficient (Koc)

Mobility : Not available.

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#### 12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

**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 minimised 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 nonrecyclable 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.

European waste catalogue: 080111\*, 200127\*

(EWC)

## **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. Vapour 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**

	ADR/RID	ADN	IMDG	IATA
14.1 UN number	UN1263	UN1263	UN1263	UN1263
14.2 UN proper shipping name	PAINT	PAINT	PAINT	PAINT
14.3 Transport hazard class(es)	3	3	3	3
14.4 Packing group	III	III	III	III
14.5 Environmental hazards	Yes.	Yes.	Yes.	Yes. The environmentally hazardous substance mark is not required.
Additional information	The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.  Special provisions 640 (E)  Tunnel code (D/E)	The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.	The environmentally hazardous substance mark may appear if required by other transportation regulations.

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.

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## **SECTION 14: Transport information**

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

: Not relevant/applicable due to nature of the product.

## **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

**Annex XIV** 

None of the components are listed.

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

Other EU regulations

**Europe inventory**: Not determined.

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

**Seveso Directive** 

This product is controlled under the Seveso Directive.

**Danger criteria** 

#### **Category**

P5c: Flammable liquids 2 and 3 not falling under P5a or P5b

E2: Hazardous to the aquatic environment - Chronic 2

#### **International regulations**

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

**UNECE Aarhus Protocol on POPs and Heavy Metals** 

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 (EC) No.

1272/2008]

DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level

EUH statement = CLP-specific Hazard statement PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number

vPvB = Very Persistent and Very Bioaccumulative

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

Classification	Justification
Flam. Liq. 3, H226	On basis of test data
Skin Irrit. 2, H315	Calculation method
Eye Dam. 1, H318	Calculation method
Skin Sens. 1, H317	Calculation method
Aquatic Chronic 2, H411	Calculation method

#### **Full text of abbreviated H statements**

11005	Llighty flaggreen has liggered and younger
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H312	Harmful 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.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H373 (oral)	May cause damage to organs through prolonged or repeated
	exposure if swallowed.
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.
H412	Harmful to aquatic life with long lasting effects.

## Full text of classifications [CLP/GHS]

Acute Tox. 3, H311	ACUTE TOXICITY (dermal) - Category 3
Acute Tox. 3, H331	ACUTE TOXICITY (inhalation) - Category 3
Acute Tox. 4, H302	ACUTE TOXICITY (oral) - Category 4
Acute Tox. 4, H312	ACUTE TOXICITY (dermal) - Category 4
Acute Tox. 4, H332	ACUTE TOXICITY (inhalation) - Category 4
Aquatic Acute 1, H400	ACUTE AQUATIC HAZARD - Category 1
Aquatic Chronic 1, H410	LONG-TERM AQUATIC HAZARD - Category 1
Aquatic Chronic 2, H411	LONG-TERM AQUATIC HAZARD - Category 2
Aquatic Chronic 3, H412	LONG-TERM AQUATIC HAZARD - Category 3
Asp. Tox. 1, H304	ASPIRATION HAZARD - Category 1
EUH066	Repeated exposure may cause skin dryness or cracking.
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
Flam. Liq. 3, H226	FLAMMABLE LIQUIDS - Category 3
Skin Corr. 1C, H314	SKIN CORROSION/IRRITATION - Category 1C
Skin Irrit. 2, H315	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1, H317	SKIN SENSITISATION - Category 1

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**SECTION 16: Other information** 

Skin Sens. 1A, H317 SKIN SENSITISATION - Category 1A

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STOT RE 2, H373 (oral) SPECIFIC TARGET ORGAN TOXICITY - REPEATED

EXPOSURE (oral) - Category 2

STOT RE 2, H373 SPECIFIC TARGET ORGAN TOXICITY - REPEATED

EXPOSURE - Category 2

STOT SE 3, H335 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE

(Respiratory tract irritation) - Category 3

STOT SE 3, H336 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE

(Narcotic effects) - Category 3

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## **Notice to reader**

The information in this SDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfil the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.

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