

SAFETY DATA SHEET



TEKNODUR COMBI 3560-90

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

1.1 Product identifier

Product name : TEKNODUR COMBI 3560-90

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

Teknos Group Oy, Takkatie 3, FI-00370 HELSINKI, FINLAND. Tel. +358 9 506 091.
e-mail: sds@teknos.fi
Business ID: 2203752-5

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 Corr. 1C, H314
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.
H314 - Causes severe skin burns and eye damage.
H317 - May cause an allergic skin reaction.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements

SECTION 2: Hazards identification

Prevention	: P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P273 - Avoid release to the environment.
Response	: P304 + P310 - IF INHALED: Immediately call a POISON CENTER or physician. P301 + P310 + P331 - IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. P303 + P353 + P310 - IF ON SKIN (or hair): Rinse skin with water or shower. Immediately call a POISON CENTER or physician. 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'-(methylenediclohexane-4,1-diyl)bis-dl-aspartate 1,3,3-trimethyl-N-(2-methylpropylidene)-5-[(2-methylpropylidene)amino]-cyclohexanemethylamine Hydroxyphenylbenzotriazol derivatives Bis(1,2,2,6,6-pentamethyl-4-piperidyl)sebacat Methyl-(1,2,2,6,6-pentamethyl-4-piperidyl)sebacat
Supplemental label elements	: Not applicable.
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	%	Classification Regulation (EC) No. 1272/2008 [CLP]	Type
tetraethylN,N'-(methylenediclohexane-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	≥5 - <10	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	≥5 - <10	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	[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 - <10	Skin Corr. 1C, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317	[1]
2-methoxy-1-methylethyl acetate	REACH #: 01-2119475791-29 EC: 203-603-9 CAS: 108-65-6	≥5 - <10	Flam. Liq. 3, H226	[2]

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SECTION 3: Composition/information on ingredients

Xylene	Index: 607-195-00-7 REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7 Index: 601-022-00-9	≥3 - <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-(2-phenoxy-ethyl)-formal	EC: 237-644-9 CAS: 13879-32-8	≥1 - <3	Aquatic Chronic 2, H411	[1]
Bis(1,2,2,6,6-pentamethyl-4-piperidyl)sebacat	REACH #: 01-2119491304-40 EC: 255-437-1 CAS: 41556-26-7	≥0.3 - <1	Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	[1]
Zinc oxide	REACH #: 01-2119463881-32 EC: 215-222-5 CAS: 1314-13-2 Index: 030-013-00-7	≥0.1 - <0.3	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	[1]
Methyl-(1,2,2,6,6-pentamethyl-4-piperidyl)sebacat	REACH #: 01-2119491304-40 EC: 280-060-4 CAS: 82919-37-7	≥0.1 - <0.3	Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 See Section 16 for the full text of the H statements declared above.	[1]

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.

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

[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.

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.

SECTION 4: First aid measures

- 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

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes severe burns. May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

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, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

SECTION 5: Firefighting measures

- 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.

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.

Seveso Directive - Reporting thresholds (in tonnes)

Named substances

Name	Notification and MAPP threshold	Safety report threshold
Nickel compounds inhalable powder form	-	1

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
P5c: Flammable liquids 2 and 3 not falling under P5a or P5b	5000	50000
E2: Hazardous to the aquatic environment - Chronic 2	200	500
C6: Flammable (R10)	5000	50000
C9ii: Toxic for the environment	200	500

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. 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

SECTION 8: Exposure controls/personal protection

Product/ingredient name	Exposure limit values
n-Butyl acetate	EH40/2005 WELs (United Kingdom (UK), 12/2011). STEL: 966 mg/m ³ 15 minutes. STEL: 200 ppm 15 minutes. TWA: 724 mg/m ³ 8 hours. TWA: 150 ppm 8 hours.
2-methoxy-1-methylethyl acetate	EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed through skin. STEL: 548 mg/m ³ 15 minutes. TWA: 50 ppm 8 hours. TWA: 274 mg/m ³ 8 hours. STEL: 100 ppm 15 minutes.
Xylene	EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed through skin. STEL: 441 mg/m ³ 15 minutes. TWA: 50 ppm 8 hours. TWA: 220 mg/m ³ 8 hours. STEL: 100 ppm 15 minutes.

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

No DNELs/DMELs available.

PNECs

No PNECs available

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.

Skin protection

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. 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. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.
- 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.
- 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** : Various
- Odour** : Slight
- Odour threshold** : Not available.
- pH** : Not available.
- Melting point/freezing point** : Not available.
- Initial boiling point and boiling range** : Not available.
- Flash point** : Closed cup: 25°C
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.
- Upper/lower flammability or explosive limits** : Lower: 0.8%
Upper: 9.8%
- Vapour pressure** : Not available.
- Vapour density** : Not available.
- Density** : 1.5 kg/l
- Solubility(ies)** : Not available.
- Partition coefficient: n-octanol/ water** : Not available.

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 : 268 g/l

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	>17600 mg/kg	-
	LD50 Oral	Rat	10768 mg/kg	-
2-methoxy-1-methylethyl acetate	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	8532 mg/kg	-
Xylene	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
	LD50 Oral	Rat	4300 mg/kg	-
		Rat		

Conclusion/Summary : Not available.

Acute toxicity estimates

Route	ATE value
Dermal	27519.2 mg/kg
Inhalation (gases)	125087.2 ppm

Irritation/Corrosion

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 milligrams	-

SECTION 11: Toxicological information

Zinc oxide	Skin - Moderate irritant	Rabbit	-	microliters 24 hours 500	-
	Skin - Moderate irritant	Rabbit	-	milligrams 100 Percent	-
	Eyes - Mild irritant	Rabbit	-	24 hours 500	-
	Skin - Mild irritant	Rabbit	-	milligrams 24 hours 500	-
				milligrams	

Conclusion/Summary : Not available.

Sensitisation

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
n-Butyl acetate	Category 3	Not applicable.	Narcotic effects
Xylene	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

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

Aspiration hazard

Product/ingredient name	Result
Xylene	ASPIRATION HAZARD - Category 1

Information on the 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 severe burns. May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : 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

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

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.

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
n-Butyl acetate	Acute LC50 66 mg/l	Fish	96 hours
	Acute LC50 18000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
Trizinc bis(orthophosphate)	Acute LC50 90 µg/l Fresh water	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-(2-phenoxy-ethyl)-formal	Acute LC50 9.2 mg/l	Fish	96 hours
	EC50 1.68 mg/l	Aquatic plants - Desmodemus subspicatus	72 hours
Zinc oxide	LC50 0.9 mg/l	Fish - Brachydanio rerio	96 hours
	Acute IC50 1.85 mg/l Marine water	Algae - Skeletonema costatum	96 hours
	Acute IC50 46 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours
	Acute LC50 98 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 1.1 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours

Conclusion/Summary : Not available.

12.2 Persistence and degradability

No known significant effects or critical hazards.

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

SECTION 12: Ecological information

Product/ingredient name	LogP _{ow}	BCF	Potential
tetraethylN,N'-(methylenedicyclohexane-4,1-diyl)bis-dl-aspartate	5.16	0.25	low
n-Butyl acetate	2.3	-	low
Trizinc bis(orthophosphate)	-	60960	high
2-methoxy-1-methylethyl acetate	1.2	-	low
Xylene	3.12	8.1 to 25.9	low
Zinc oxide	-	60960	high

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

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 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.

European waste catalogue (EWC) : 080111

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	UN2924	UN2924	UN2924	UN2924

SECTION 14: Transport information

14.2 UN proper shipping name	FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Xylene, 1,3, 3-trimethyl-N-(2-methylpropylidene)-5-[(2-methylpropylidene)amino]-cyclohexanemethylamine)	FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Xylene, 1,3, 3-trimethyl-N-(2-methylpropylidene)-5-[(2-methylpropylidene)amino]-cyclohexanemethylamine)	FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Xylene, 1,3, 3-trimethyl-N-(2-methylpropylidene)-5-[(2-methylpropylidene)amino]-cyclohexanemethylamine)	Flammable liquid, corrosive, n.o.s. (Xylene, 1,3, 3-trimethyl-N-(2-methylpropylidene)-5-[(2-methylpropylidene)amino]-cyclohexanemethylamine)
14.3 Transport hazard class(es)	3 (8) 	3 (8) 	3 (8) 	3 (8)
14.4 Packing group	III	III	III	III
14.5 Environmental hazards	Yes.	Yes.	Yes.	No.
Additional information	The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg. Hazard identification number 38 Limited quantity LQ7 Special provisions 274 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. Emergency schedules (EmS) F-E, S-C Special provisions 223, 274	The environmentally hazardous substance mark may appear if required by other transportation regulations. Passenger and Cargo Aircraft Quantity limitation: 5 L Packaging instructions: 309 Cargo Aircraft Only Quantity limitation: 60 L Packaging instructions: 310 Limited Quantities - Passenger Aircraft Quantity limitation: 1 L Packaging instructions: Y309 Special provisions A3

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.

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

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.

Seveso Directive

This product is controlled under the Seveso Directive.

Named substances

Name
Nickel compounds inhalable powder form

Danger criteria

Category
P5c: Flammable liquids 2 and 3 not falling under P5a or P5b E2: Hazardous to the aquatic environment - Chronic 2 C6: Flammable (R10) C9ii: Toxic for the environment

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 Inform 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.

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]
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

SECTION 16: Other information

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 Skin Corr. 1C, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 2, H411	On basis of test data Calculation method Calculation method Calculation method Calculation method

Full text of abbreviated H statements	:	H226 H304 H312 (dermal) H314 H315 H317 H318 H319 H332 (inhalation) H335 H336 H373 (oral) H400 H410 H411 H412	Flammable liquid and vapour. May be fatal if swallowed and enters airways. Harmful in contact with skin. Causes severe skin burns and eye damage. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Causes serious eye irritation. Harmful if inhaled. May cause respiratory irritation. May cause drowsiness or dizziness. May cause damage to organs through prolonged or repeated exposure if swallowed. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects. Toxic to aquatic life with long lasting effects. Harmful to aquatic life with long lasting effects.
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Full text of classifications [CLP/GHS]	:	Acute Tox. 4, H312 Acute Tox. 4, H332 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 Aquatic Chronic 2, H411 Aquatic Chronic 3, H412 Asp. Tox. 1, H304 EUH066 Eye Dam. 1, H318 Eye Irrit. 2, H319 Flam. Liq. 3, H226 Skin Corr. 1C, H314 Skin Irrit. 2, H315 Skin Sens. 1, H317 Skin Sens. 1A, H317 STOT RE 2, H373 (oral) STOT SE 3, H335 STOT SE 3, H336	ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 ACUTE AQUATIC HAZARD - Category 1 LONG-TERM AQUATIC HAZARD - Category 1 LONG-TERM AQUATIC HAZARD - Category 2 LONG-TERM AQUATIC HAZARD - Category 3 ASPIRATION HAZARD - Category 1 Repeated exposure may cause skin dryness or cracking. SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2 FLAMMABLE LIQUIDS - Category 3 SKIN CORROSION/IRRITATION - Category 1C SKIN CORROSION/IRRITATION - Category 2 SKIN SENSITIZATION - Category 1 SKIN SENSITIZATION - Category 1A SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (oral) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
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Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

