SAFETY DATA SHEET

ecotherm® futur 4+

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

1.1 Product identifier

Product name	:	ecotherm® futur 4+
Product code	:	VG-001336
Internal code	:	VG-001336
Date of issue/ Date of revision	:	2/28/2024
Date of previous issue	:	2/23/2024
Version	:	2.02
Product description	:	Mixture
Physical state	:	Liquid.
Chemical identity	:	Not available.
UFI	:	XNV0-502E-D00U-UA05

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

Identified uses

Petrochemical industry: Fuel additive.

1.3 Details of the supplier of the safety data sheet

UK Supplier	:	Innospec Limited Innospec Manufacturing Park Oil Sites Road, Ellesmere Port Cheshire CH65 4EY United Kingdom
Telephone no.:	:	+44 (0)151 355 3611
Fax no.	:	+44 (0)151 356 2349
e-mail address of person responsible for this SDS	:	sdsinfo@innospecinc.com
EU Supplier	:	Innospec Limited Boite Postale 19, F-55300 St. Mihiel Han-sur-Meuse, Meuse, France + 33 3 2991 7300

1.4 Emergency telephone number

In Europe, Middle East, Africa, Asia Pacific and South America 24 hour / 7 day emergency response for our products is provided by the NCEC CARECHEM 24 global network

The main regional centres are listed here in Section 1. Other local contact numbers for specific language support in Asia Pacific are listed in Section 16.

Country information		Emergency telephone number	Location
Europe (all countries, all languages)	:	+44 (0) 1235 239 670	London, UK

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

Middle East, Africa (Arabic, French, English , Portuguese, Farsi)	: +44 (0) 1235 239 671	London, UK
Asia Pacific (all countries except China)	: +65 3158 1074	Singapore
China	: 400 120 6011	Beijing China
Brazil	: +55 11 3197 5891	Brazil
Mexico	: +52 555 004 8763	Mexico

In USA, Canada and North America, 24 h/7 days of emergency response for our product is provided by the CHEMTREC(R) Emergency Call Center based in the USA.

Country information	: **Emergency telephone number**
USA	: 800 424 9300
Canada, Puerto Rico, Virgin Islands	: +1 800 424 9300
In case of difficulty using the toll-free number, or for ships at sea, call	: +1 703 527 3887

See section 16.

Indicates information that has changed from previously issued version.

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]

Eye Dam. 1, H318
Skin Sens. 1, H317
Repr. 1B, H360FD
STOT SE 3, H336
Asp. Tox. 1, H304
Aquatic Chronic 2, H411

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 :
H304 - May be fatal if swallowed and enters airways.
H317 - May cause an allergic skin reaction.
H318 - Causes serious eye damage.
H336 - May cause drowsiness or dizziness.
H360FD - May damage fertility. May damage the unborn child.
H411 - Toxic to aquatic life with long lasting effects.

Supplemental label elements : Repeated exposure may cause skin dryness or cracking.

Precautionary statements

General : Not applicable.

Prevention :
P201 - Obtain special instructions before use.
P280 - Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection.
P273 - Avoid release to the environment.
P261 - Avoid breathing vapour.

SECTION 2: Hazards identification

Response : P391 - Collect spillage.
P308 + P313 - IF exposed or concerned: Get medical advice or attention.
P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell.
P301 + P310, P331 - IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting.
P362 + P364 - Take off contaminated clothing and wash it before reuse.
P302 + P352 - IF ON SKIN: Wash with plenty of water.
P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention.
P305 + P351 + P338, P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

Storage : P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.

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

Hazardous ingredients : Hydrocarbons C10, Aromatics, <1% Naphthalene, [Solvent naphtha (petroleum), heavy arom.]; Reaction mass of 2,6-di-tert-butylphenol and 2,4,6-tri-tert-butylphenol.; Benzaldehyde; 2,4,6-tri-tert-butylphenol; N,N'-Disalicylidene-1,2-propanediamine; n, n-bis(2-ethylhexyl)-((1,2,4-triazol-1-yl)methyl)amine; Hexyl salicylate and methyl cinnamate

Special packaging requirements

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

Tactile warning of danger : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

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	Specific Conc. Limits, M-factors and ATEs	Type
Hydrocarbons C10, Aromatics, <1% Naphthalene, [Solvent naphtha (petroleum), heavy arom.]	REACH #: 01-2119463583-34 EC: 918-811-1 CAS: 64742-94-5 Index: 649-424-00-3	≥75 - ≤90	STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 EUH066	-	[1] [2]
Reaction mass of 2,6-di-tert-butylphenol and 2,4,6-tri-tert-butylphenol.	REACH #: 01-2119538013-51 EC: 907-745-9	≤10	Eye Dam. 1, H318 Aquatic Chronic 1, H410	M [Chronic] = 1	[1]
2-ethylhexan-1-ol	REACH #: 01-2119487289-20 EC: 203-234-3 CAS: 104-76-7	≤3	Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335	ATE [Inhalation (vapours)] = 11 mg/l	[1] [2]
Reaction mass of ethylbenzene and xylene	REACH #: 01-2119488216-32 01-2119486136-34 01-2119555267-33 EC: 905-588-0 CAS: 1330-20-7 Index: 601-022-00-9	≤3	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	ATE [Dermal] = 1100 mg/kg ATE [Inhalation (gases)] = 6670 ppm	[1] [2]

SECTION 3: Composition/information on ingredients

			(inhalation) Asp. Tox. 1, H304 Aquatic Chronic 3, H412		
2,6-di-tert-butyl-p-cresol	REACH #: 01-2119480433-40 01-2119565113-46 EC: 204-881-4 CAS: 128-37-0	≤3	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 1	[1]
Benzaldehyde	REACH #: 01-2119455540-44 EC: 202-860-4 CAS: 100-52-7	<1	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Repr. 1B, H360 STOT SE 3, H335 Aquatic Chronic 2, H411	ATE [Oral] = 1300 mg/kg ATE [Dermal] = 1100 mg/kg	[1]
2,4,6-tri-tert-butylphenol	REACH #: Exempt EC: 211-989-5 CAS: 732-26-3	<1	Acute Tox. 4, H302 Skin Sens. 1B, H317 Repr. 1B, H360 STOT RE 2, H373 (oral) Aquatic Chronic 2, H411	ATE [Oral] = 500 mg/kg	[1]
N,N'-Disalicylidene-1,2-propanediamine	REACH #: 01-2119958970-25 EC: 202-374-2 CAS: 94-91-7	<1	Acute Tox. 4, H302 Skin Sens. 1, H317 Repr. 1B, H360FD Aquatic Chronic 3, H412	ATE [Oral] = 500 mg/kg	[1] [2]
n,n-bis(2-ethylhexyl)-((1,2,4-triazol-1-yl)methyl) amine	REACH #: 01-0000015116-78 EC: 401-280-0 CAS: 91273-04-0 Index: 613-072-00-9	<1	Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Chronic 1, H410	M [Chronic] = 1	[1]
naphthalene	EC: 202-049-5 CAS: 91-20-3 Index: 601-052-00-2	<1	Acute Tox. 4, H302 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 490 mg/kg M [Acute] = 1 M [Chronic] = 1	[1] [2]
1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran	REACH #: 01-2119488227-29 EC: 214-946-9 CAS: 1222-05-5 Index: 603-212-00-7	≤0.3	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 1	[1]
Hexyl salicylate	REACH #: Not yet registered EC: 228-408-6 CAS: 6259-76-3	≤0.3	Skin Sens. 1B, H317 Aquatic Chronic 1, H410	M [Chronic] = 1	[1]
methyl cinnamate	EC: 203-093-8 CAS: 103-26-4	≤0.3	Skin Sens. 1B, H317	-	[1]
2-phenylethanol	REACH #: Not yet registered EC: 200-456-2 CAS: 60-12-8	≤0.3	Acute Tox. 4, H302 Acute Tox. 3, H311 Skin Irrit. 2, H315 Eye Irrit. 2, H319	ATE [Oral] = 1500 mg/kg ATE [Dermal] = 805 mg/kg	[1]

SECTION 3: Composition/information on ingredients

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

Additional CAS # used in National Inventories

Solvent naphtha (petroleum), heavy arom.	-	64742-94-5
Reaction mass of 2,6-di-tert-butylphenol and 2,4,6-tri-tert-butylphenol.	-	128-39-2, 732-26-3
2-ethylhexan-1-ol	-	104-76-7
Xylene	-	1330-20-7
2,6-di-tert-butyl-p-cresol	-	128-37-0
Benzaldehyde	-	100-52-7
2,4,6-tri-tert-butylphenol	-	732-26-3
N,N'-Disalicylidene-1,2-propanediamine	-	94-91-7
n,n-bis(2-ethylhexyl)-((1,2,4-triazol-1-yl)methyl)amine	-	91273-04-0
naphthalene	-	91-20-3
1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylcyclopenta-gamma-2-benzopyran; HHCB	-	1222-05-5
Hexyl salicylate	-	6259-76-3

Additional information

There are no 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 or vPvBs 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
Our REACH (pre-) registrations DO NOT cover the following:
1. The manufacture of these products by our company outside the EU unless covered by the Only Representative provisions, and
2. The importation of these products into Europe by other companies. Re-importation by other companies is not covered by our (pre-) registrations
Customers and other third parties importing and/or re-importing our products into Europe will need either:
- Their own (pre-) registration for substances contained in the imported product, or constituent monomers (imported above 1 tonne per year and >2% by weight) in the case of imported polymers, or
- In the case of importation only, to make use of the "Only Representative" provisions, if available.

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.

Skin contact : Get medical attention immediately. Call a poison center or physician. Wash skin thoroughly with soap and water or use recognised skin cleanser. 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.

SECTION 4: First aid measures

Ingestion : Get medical attention immediately. Call a poison center or physician. Remove dentures if any. Wash out mouth with water. Stop if the exposed person feels sick as vomiting may be dangerous. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. 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 : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.

Skin contact : Defatting to the skin. May cause skin dryness and irritation. May cause an allergic skin reaction.

Ingestion : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Inhalation : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced foetal weight
increase in foetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
dryness
cracking
blistering may occur
reduced foetal weight
increase in foetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
stomach pains
nausea or vomiting
reduced foetal weight
increase in foetal deaths
skeletal malformations

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

SECTION 4: First aid measures

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

5.3 Advice for firefighters

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. 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. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach 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.

SECTION 6: Accidental release measures

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

SECTION 7: Handling and storage

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

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not swallow. Avoid release to the environment. 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. 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

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

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

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

8.1 Control parameters

Occupational exposure limits

Solvent naphtha (petroleum), heavy arom.	**Supplier/Manufacturer (Europe, 2015).** EU HSPA (RCP Aromatic solvents 180 - 215): 151 mg/m³ 8 hours.
2-ethylhexan-1-ol	**EH40/2005 WELs (United Kingdom (UK), 1/2020).** TWA: 5.4 mg/m³ 8 hours. TWA: 1 ppm 8 hours.
Reaction mass of ethylbenzene and xylene	**EH40/2005 WELs (United Kingdom (UK), 1/2020). [xylene, o-,m-, p- or mixed isomers] 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.
2,6-di-tert-butyl-p-cresol	**EH40/2005 WELs (United Kingdom (UK), 1/2020).** TWA: 10 mg/m³, 0 times per shift, 8 hours.

SECTION 8: Exposure controls/personal protection

N,N'-Disalicylidene-1,2-propanediamine	**Innospec Inc. (Europe, 2006). Notes: Respirable** TWA: 4 mg/m³, 0 times per shift, 8 hours. Form: Respirable dust **Innospec Inc. (Europe, 2006). Notes: Total** TWA: 10 mg/m³, 0 times per shift, 8 hours. Form: Total dust
1,2,4-trimethylbenzene	**EH40/2005 WELs (United Kingdom (UK), 1/2020). [trimethylbenzenes, all isomers or mixtures]** TWA: 25 ppm 8 hours. TWA: 125 mg/m³ 8 hours.
naphthalene	**EU OEL (Europe, 1/2022). Notes: list of indicative occupational exposure limit values** TWA: 10 ppm 8 hours. TWA: 50 mg/m³, 0 times per shift, 8 hours.
Reaction mass of ethylbenzene and xylene	**EH40/2005 WELs (United Kingdom (UK), 1/2020). [xylene, o-,m-, p- or mixed isomers] 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.
isopentyl acetate	**EH40/2005 WELs (United Kingdom (UK), 1/2020). [pentyl acetates (all isomers)]** STEL: 541 mg/m³, 0 times per shift, 15 minutes. STEL: 100 ppm, 0 times per shift, 15 minutes. TWA: 50 ppm, 0 times per shift, 8 hours. TWA: 270 mg/m³, 0 times per shift, 8 hours.
cumene	**EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin.** STEL: 250 mg/m³, 0 times per shift, 15 minutes. STEL: 50 ppm, 0 times per shift, 15 minutes. TWA: 25 ppm, 0 times per shift, 8 hours. TWA: 125 mg/m³, 0 times per shift, 8 hours.
xylene	**EH40/2005 WELs (United Kingdom (UK), 1/2020). [xylene, o-,m-, p- or mixed isomers] Absorbed through skin.** STEL: 441 mg/m³, 0 times per shift, 15 minutes. TWA: 50 ppm, 0 times per shift, 8 hours. TWA: 220 mg/m³, 0 times per shift, 8 hours. STEL: 100 ppm, 0 times per shift, 15 minutes.
ethylbenzene	**EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin.** STEL: 552 mg/m³, 0 times per shift, 15 minutes. STEL: 125 ppm, 0 times per shift, 15 minutes. TWA: 100 ppm, 0 times per shift, 8 hours. TWA: 441 mg/m³, 0 times per shift, 8 hours.
Formaldehyde, solution	**EH40/2005 WELs (United Kingdom (UK), 1/2020).** STEL: 2.5 mg/m³, 0 times per shift, 15 minutes. STEL: 2 ppm, 0 times per shift, 15 minutes. TWA: 2 ppm, 0 times per shift, 8 hours. TWA: 2.5 mg/m³, 0 times per shift, 8 hours.
toluene	**EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin.** STEL: 384 mg/m³, 0 times per shift, 15 minutes. TWA: 191 mg/m³, 0 times per shift, 8 hours. TWA: 50 ppm, 0 times per shift, 8 hours. STEL: 100 ppm, 0 times per shift, 15 minutes.
formamide	**EH40/2005 WELs (United Kingdom (UK), 1/2020).** STEL: 56 mg/m³ 15 minutes. STEL: 30 ppm 15 minutes. TWA: 37 mg/m³ 8 hours. TWA: 20 ppm 8 hours.
amitrole (ISO)	**EH40/2005 WELs (United Kingdom (UK), 1/2020).** TWA: 0.2 mg/m³ 8 hours.

SECTION 8: Exposure controls/personal protection

Recommended monitoring procedures : 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
Hydrocarbons C10, Aromatics, <1% Naphthalene, [Solvent naphtha (petroleum), heavy arom.]	DNEL	Long term Dermal	12.5 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	151 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	7.5 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Inhalation	32 mg/m³	Consumers	Systemic
	DNEL	Long term Oral	7.5 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Oral	2.1 mg/kg bw/day	General population	Systemic
	DMEL	Long term Inhalation	3.25 mg/m³	Workers	Systemic
	DNEL	Long term Inhalation	10.2 mg/m³	General population	Systemic
	DMEL	Long term Dermal	23.4 mg/kg bw/day	Workers	Systemic
	DMEL	Long term Dermal	42.4 mg/kg bw/day	General population	Systemic
Reaction mass of 2,6-di-tert-butylphenol and 2,4,6-tri-tert-butylphenol.	DNEL	Long term Dermal	0.5 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	3.5 mg/m³	Workers	Systemic
2-ethylhexan-1-ol	DNEL	Short term Inhalation	106.4 mg/m³	Workers	Local
	DNEL	Long term Dermal	23 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	53.2 mg/m³	Workers	Systemic
	DNEL	Short term Inhalation	53.2 mg/m³	General population [Consumers]	Local
	DNEL	Long term Dermal	11.4 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Inhalation	2.3 mg/m³	General population [Consumers]	Systemic
	DNEL	Long term Oral	1.1 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Inhalation	12.8 mg/m³	Workers	Systemic
	DNEL	Long term Inhalation	26.6 mg/m³	General population [Consumers]	Local
	DNEL	Short term Inhalation	26.6 mg/m³	General population	Local

SECTION 8: Exposure controls/personal protection

				[Consumers]	
	DNEL	Long term Oral	1.1 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	2.3 mg/m³	General population	Systemic
	DNEL	Long term Dermal	11.4 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	12.8 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	23 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	26.6 mg/m³	General population	Local
	DNEL	Long term Inhalation	26.6 mg/m³	General population	Local
	DNEL	Short term Inhalation	53.2 mg/m³	Workers	Local
	DNEL	Long term Inhalation	53.2 mg/m³	Workers	Local
Reaction mass of ethylbenzene and xylene	DNEL	Short term Inhalation	442 mg/m³	Workers	Local
	DNEL	Short term Inhalation	289 mg/m³	Workers	Systemic
	DNEL	Long term Inhalation	180 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	77 mg/m³	Workers	Local
	DNEL	Long term Inhalation	221 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	3182 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	180 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Dermal	260 mg/m³	General population [Human via the environment]	Systemic
	DNEL	Long term Inhalation	65.3 mg/m³	General population [Human via the environment]	Systemic
	DNEL	Long term Dermal	1872 mg/kg bw/day	General population [Human via the environment]	Systemic
	DNEL	Long term Oral	12.5 mg/kg bw/day	General population [Human via the environment]	Systemic
	DNEL	Long term Oral	1.6 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	14.8 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	77 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	108 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	180 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	289 mg/m³	Workers	Local
	DNEL	Short term Inhalation	289 mg/m³	Workers	Systemic
2,6-di-tert-butyl-p-cresol	DNEL	Long term Dermal	0.5 mg/kg	Workers	Systemic

SECTION 8: Exposure controls/personal protection

			bw/day		
	DNEL	Long term Inhalation	3.5 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0.25 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.5 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	0.86 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	3.5 mg/m³	Workers	Systemic
Benzaldehyde	DNEL	Long term Oral	0.67 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.67 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	1.14 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	4.9 mg/m³	General population	Local
	DNEL	Long term Inhalation	4.9 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	9.8 mg/m³	Workers	Local
	DNEL	Long term Inhalation	9.8 mg/m³	Workers	Systemic
	DNEL	Short term Dermal	1 %	General population	Local
	DNEL	Short term Dermal	1 %	Workers	Local
2,4,6-tri-tert-butylphenol	DNEL	Long term Dermal	0.06 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	0.1 mg/m³	Workers	Systemic
	DNEL	Short term Inhalation	0.3 mg/m³	Workers	Systemic
	DNEL	Short term Dermal	1.8 mg/kg bw/day	Workers	Systemic
N,N'-Disalicylidene-1,2-propanediamine	DNEL	Long term Oral	0.22 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.44 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0.76 mg/m³	General population	Systemic
	DNEL	Long term Dermal	0.88 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	3.11 mg/m³	Workers	Systemic
n,n-bis(2-ethylhexyl)-((1,2,4-triazol-1-yl)methyl)amine	DNEL	Long term Inhalation	1.76 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	0.5 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	0.43 mg/m³	General population [Consumers]	Systemic
	DNEL	Long term Dermal	0.25 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Oral	0.25 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Oral	0.25 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.25 mg/kg bw/day	General population	Systemic
	DNEL	Long term	0.43 mg/m³	General	Systemic

SECTION 8: Exposure controls/personal protection

		Inhalation		population	
	DNEL	Long term Dermal	0.5 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	1.76 mg/m³	Workers	Systemic
naphthalene	DNEL	Long term Dermal	3.57 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	25 mg/m³	Workers	Systemic
	DNEL	Long term Inhalation	25 mg/m³	Workers	Local
	DNEL	Long term Dermal	3.57 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	25 mg/m³	Workers	Local
	DNEL	Long term Inhalation	25 mg/m³	Workers	Systemic
1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c] pyran	DNEL	Long term Oral	0.75 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	1.3 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	5.29 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	14.43 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	28.85 mg/kg bw/day	Workers	Systemic
Hexyl salicylate	DNEL	Short term Dermal	2083 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	0.729 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	2083 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	0.729 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Dermal	1250 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Short term Inhalation	0.219 mg/m³	General population [Consumers]	Systemic
	DNEL	Short term Oral	0.0625 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Dermal	1250 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Inhalation	0.219 mg/m³	General population [Consumers]	Systemic
	DNEL	Long term Oral	0.0625 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Oral	0.625 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	1.25 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	2.19 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	2.19 mg/m³	General population	Systemic
	DNEL	Short term Inhalation	7.29 mg/m³	Workers	Systemic

SECTION 8: Exposure controls/personal protection

	DNEL	Long term Inhalation	7.29 mg/m³	Workers	Systemic
	DNEL	Short term Dermal	12500 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	12500 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	20830 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	20830 mg/kg bw/day	Workers	Systemic
methyl cinnamate	DNEL	Long term Oral	2 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	2 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	4 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	6.96 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	28.2 mg/m³	Workers	Systemic
2-phenylethanol	DNEL	Long term Oral	5.1 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	12.7 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	17.7 mg/m³	General population	Systemic
	DNEL	Long term Dermal	21.2 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	59.9 mg/m³	Workers	Systemic
	DNEL	Short term Oral	5.1 mg/kg bw/day	General population	Systemic

PNECs

Product/ingredient name	Type	Compartment Detail	Value	Method Detail
Reaction mass of 2,6-di-tert-butylphenol and 2,4,6-tri-tert-butylphenol.	-	Fresh water	0.3 µg/l	-
	-	Marine water	0.03 µg/l	-
	-	Fresh water sediment	0.09 mg/kg dwt	-
	-	Marine water sediment	0.009 mg/kg dwt	-
	-	Soil	0.044 mg/kg dwt	-
	-	Sewage Treatment Plant	2.4 mg/l	-
2-ethylhexan-1-ol	PNEC	Fresh water	0.017 mg/l	-
	PNEC	Marine	0.0017 mg/l	-
	PNEC	Sewage Treatment Plant	10 mg/l	-
	PNEC	Fresh water sediment	0.28 mg/kg dwt	-
	PNEC	Marine water sediment	0.028 mg/kg dwt	-
	PNEC	Soil	0.047 mg/kg dwt	-
	PNEC	Intermittent release	0.17 mg/l	-
	PNEC	Marine water	0.002 mg/l	-
	PNEC	Secondary Poisoning	55 mg/kg	-
Reaction mass of ethylbenzene and xylene	PNEC	Fresh water	0.327 mg/l	-
	PNEC	Marine	0.327 mg/l	-
	PNEC	Fresh water sediment	12.46 mg/l	-
	PNEC	Marine water sediment	12.46 mg/l	-
	PNEC	Soil	2.31 mg/l	-
	PNEC	Sewage Treatment Plant	6.58 mg/l	-
2,6-di-tert-butyl-p-cresol	PNEC	Fresh water	0.199 µg/l	-

SECTION 8: Exposure controls/personal protection

	PNEC	Marine	0.0199 µg/l	-
	PNEC	Fresh water sediment	99.6 µg/kg dwt	-
	PNEC	Marine water sediment	9.96 µg/kg dwt	-
	PNEC	Soil	47.69 µg/kg dwt	-
n,n-bis(2-ethylhexyl)-((1,2,4-triazol-1-yl)methyl)amine	-	Fresh water	0.001 mg/l	Assessment Factors
	-	Marine water	0 mg/l	Assessment Factors
	-	Sewage Treatment Plant	1 mg/l	Assessment Factors
	-	Fresh water sediment	0.567 mg/kg dwt	Assessment Factors
	-	Marine water sediment	0.057 mg/kg dwt	Assessment Factors
	-	Soil	0.2 mg/kg dwt	Assessment Factors
naphthalene	PNEC	Fresh water	2.4 µg/l	-
	PNEC	Marine	0.24 µg/l	-
	PNEC	Sewage Treatment Plant	2.9 mg/l	-
	PNEC	Fresh water sediment	67.2 µg/kg dwt	-
	PNEC	Marine water sediment	67.2 µg/kg dwt	-
	PNEC	Soil	53.3 µg/kg dwt	-
Hexyl salicylate	PNEC	Fresh water	0.000357 mg/l	-
	PNEC	Marine	0.0000357 mg/l	-
	PNEC	Sewage Treatment Plant	10 mg/l	-
	PNEC	Fresh water sediment	0.272 mg/kg dwt	-
	PNEC	Marine water sediment	0.0272 mg/kg dwt	-
	PNEC	Soil	0.0542 mg/kg dwt	-

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.

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

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

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

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

SECTION 8: Exposure controls/personal protection

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

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

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid.

Colour : Yellow. [Transparent]

Odour : Characteristic.

Odour threshold : Not available.

pH : Not applicable.

Melting point/freezing point : Not available.

Initial boiling point and boiling range : Lowest known value: 138.85°C (281.9°F) (xylene). Weighted average: 194.58°C (382.2°F)

Flash point : Closed cup: >61°C (>141.8°F) [Pensky-Martens]

Evaporation rate : Highest known value: 0.77 (xylene) Weighted average: 0.07compared with butyl acetate

Flammability (solid, gas) : Not available.

Burning time : Not applicable.

Burning rate : Not applicable.

Upper/lower flammability or explosive limits : Greatest known range: Lower: 0.88% Upper: 9.7% (2-ethylhexan-1-ol)

Vapour pressure : Highest known value: 0.7 to 0.9 kPa (5 to 6.6 mm Hg) (at 20°C) (xylene). Weighted average: 0.12 kPa (0.9 mm Hg) (at 20°C)

Vapour density : Highest known value: 4.6 to 5.5 (Air = 1) (Solvent naphtha (petroleum), heavy arom.). Weighted average: 5 (Air = 1)

Relative density : Not available.

Density : 0.9044 g/cm³ [15°C (59°F)]

Solubility(ies) :

Miscible with water : No.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Lowest known value: 280°C (536°F) (2-ethylhexan-1-ol).

Decomposition temperature : Not available.

Viscosity : Kinematic (40°C (104°F)): 2.8 mm^2/s (2.8 cSt)

Explosive properties : Not available.

Oxidising properties : Not available.

Particle characteristics

Median particle size : Not applicable.

9.2 Other 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 : No specific data.

10.5 Incompatible materials : No specific data.

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 hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Test	Species	Result type	Dose
Hydrocarbons C10, Aromatics, <1% Naphthalene, [Solvent naphtha (petroleum), heavy arom.]	-	Rat	LC50 Inhalation Vapour	>590 mg/m³
	-	Rabbit	LD50 Dermal	>2 mL/kg
	-	Rabbit	LD50 Dermal	>2000 mg/kg
	-	Rat	LDLo Oral	5 mL/kg
Reaction mass of 2,6-di-tert-butylphenol and 2,4,6-tri-tert-butylphenol.	OECD 402 Acute Dermal Toxicity	Rat - Male, Female	LD50 Dermal	>2000 mg/kg
	OECD 401 Acute Oral Toxicity	Rat - Male, Female	LD50 Oral	2976 mg/kg
2-ethylhexan-1-ol	OECD 403 Acute Inhalation Toxicity	Rat - Male, Female	LC50 Inhalation Dusts and mists	<5.3 mg/l
	OECD 403 Acute Inhalation Toxicity	Rat - Male, Female	LC50 Inhalation Vapour	>0.89 mg/l
	OECD 402 Acute Dermal Toxicity	Rat - Male, Female	LD50 Dermal	>3000 mg/kg
	OECD 401 Acute Oral Toxicity	Rat - Male	LD50 Oral	2047 mg/kg
Reaction mass of ethylbenzene and xylene	-	Rat	LC50 Inhalation Gas.	6670 ppm
	-	Rabbit	LD50 Dermal	4320 mg/kg
	-	Rat	LD50 Oral	4300 mg/kg
2,6-di-tert-butyl-p-cresol	-	Rabbit	LD50 Dermal	>2000 mg/kg
	-	Rat	LD50 Oral	>2930 mg/kg
Benzaldehyde	-	Rat	LD50 Oral	1300 mg/kg
2,4,6-tri-tert-butylphenol	-	Rat	LD50 Oral	1610 mg/kg
N,N'-Disalicylidene-1,2-propanediamine	-	Rat	LD50 Oral	4560 mg/kg
	OECD 401 Acute Oral Toxicity	Rat - Male, Female	LD50 Oral	1350 mg/kg
	OECD 402 Acute Dermal Toxicity	Rat - Male, Female	LD50 Oral	>2000 mg/kg

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n,n-bis(2-ethylhexyl)-(1,2,4-triazol-1-yl)methyl) amine	OECD 402 Acute Dermal Toxicity	Rat	LD50 Dermal	>2000 mg/kg
	-	Rat	LD50 Oral	2350 mg/kg
naphthalene	-	Rat	LC50 Inhalation Vapour	>340 mg/m³
	-	Rabbit	LD50 Dermal	>2000 mg/kg
	-	Rat	LD50 Oral	490 mg/kg
1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno [5,6-c]pyran	-	Rat	LD50 Dermal	>5 g/kg
Hexyl salicylate	-	Rabbit	LD50 Dermal	>5 g/kg
	-	Rat	LD50 Oral	>5 g/kg
methyl cinnamate	-	Rabbit	LD50 Dermal	>5 g/kg
	-	Rat	LD50 Oral	2610 mg/kg
2-phenylethanol	-	Rabbit	LD50 Dermal	805 mg/kg
	-	Rat	LD50 Dermal	>5000 mg/kg
	-	Rat	LD50 Oral	1500 mg/kg

Acute toxicity estimates (ATE)

Route	ATE value
Dermal	46459.65 mg/kg
Inhalation (gases)	306525.74 ppm
Inhalation (vapours)	478.26 mg/l
Inhalation (dusts and mists)	65.22 mg/l

Irritation/Corrosion

Product/ingredient name	Test	Species	Result	
Hydrocarbons C10, Aromatics, <1% Naphthalene, [Solvent naphtha (petroleum), heavy arom.]	-	Mammal - species unspecified	Eyes - Mild irritant	-
	-	Rabbit	Skin - Mild irritant	-
Reaction mass of 2,6-di-tert-butylphenol and 2,4,6-tri-tert-butylphenol.	OECD 405 Acute Eye Irritation/Corrosion	Rabbit	Eyes - Cornea opacity	3
	OECD 405 Acute Eye Irritation/Corrosion	Rabbit	Eyes - Redness of the conjunctivae	3
	OECD 404 Acute Dermal Irritation/ Corrosion	Rabbit	Skin - Oedema	0
2-ethylhexan-1-ol	-	Rabbit	Eyes - Moderate irritant	-
	-	Rabbit	Eyes - Severe irritant	-
	-	Rabbit	Skin - Moderate irritant	-
2,6-di-tert-butyl-p-cresol	-	Rabbit	Eyes - Moderate irritant	-
	-	Human	Skin - Mild irritant	-
	-	Rabbit	Skin - Moderate irritant	-
Benzaldehyde	-	Rabbit	Skin - Moderate irritant	-
N,N'-Disalicylidene-1,2-propanediamine	Eye irritation	Rabbit	Eyes - Cornea opacity	0
	OECD 404 Acute Dermal Irritation/ Corrosion	Rabbit	Skin - Oedema	0.53
n,n-bis(2-ethylhexyl)-(1,2,4-triazol-1-yl)methyl) amine	OECD 404 Acute Dermal Irritation/ Corrosion	Rabbit	Skin - Oedema	3.33
	OECD 404 Acute Dermal Irritation/ Corrosion	Rabbit	Skin - Erythema/ Eschar	2.66

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1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno [5,6-c]pyran	-	Rabbit	Skin - Moderate irritant -
2-phenylethanol	-	Rabbit	Eyes - Mild irritant -
	-	Rabbit	Eyes - Severe irritant -
	-	Guinea pig	Skin - Mild irritant -
	-	Guinea pig	Skin - Moderate irritant -
	-	Rabbit	Skin - Moderate irritant -

Sensitisation

Product/ingredient name	Test	Species	Result
Reaction mass of 2,6-di-tert-butylphenol and 2,4,6-tri-tert-butylphenol.	-	Guinea pig	Not sensitizing -
2-ethylhexan-1-ol	-	Guinea pig	Not sensitizing -
2,6-di-tert-butyl-p-cresol	-	Human	Not sensitizing -
N,N'-Disalicylidene-1,2-propanediamine	Skin sensitisation	Guinea pig	Sensitising -
n,n-bis(2-ethylhexyl)-((1,2,4-triazol-1-yl)methyl) amine	OECD 406 Skin Sensitization	Guinea pig	Sensitising -

Potential chronic health effects

Product/ingredient name	Test	Species	Result	Dose
2-ethylhexan-1-ol	OECD 413 Subchronic Inhalation Toxicity: 90-day Study	Rat - Male, Female	Sub-chronic NOAEC Inhalation Vapour	120 ppm
	OECD 408 Repeated Dose 90-Day Oral Toxicity Study in Rodents	Rat - Male, Female	Sub-chronic NOAEL Oral	250 mg/kg
	OECD 408 Repeated Dose 90-Day Oral Toxicity Study in Rodents	Rat - Male, Female	Sub-chronic NOEL Oral	125 mg/kg
2,6-di-tert-butyl-p-cresol	-	Rat	Chronic NOAEL Oral	25 mg/kg
N,N'-Disalicylidene-1,2-propanediamine	OECD 422 Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test	Rat - Male, Female	Sub-acute NOAEL Oral	75 mg/kg Local effects
	OECD 422 Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test	Rat - Male, Female	Sub-acute NOAEL Oral	250 mg/kg Systemic Effects
n,n-bis(2-ethylhexyl)-((1,2,4-triazol-1-yl)methyl) amine	OECD 407 Repeated Dose 28-day Oral Toxicity Study in Rodents	Rat	Sub-acute NOEL Oral	60 mg/kg

Mutagenicity

Product/ingredient name	Test	Experiment	Result
2-ethylhexan-1-ol	OECD 471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria Metabolic activation: with and without	Negative OECD 471 Bacterial Reverse Mutation Test
	OECD 473 In vitro Mammalian Chromosomal Aberration Test	Experiment: In vitro Subject: Mammalian-Animal Metabolic activation: with and without	Negative OECD 473 In vitro Mammalian Chromosomal Aberration Test

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	OECD 476 In vitro Mammalian Cell Gene Mutation Test	Experiment: In vitro Subject: Mammalian-Animal Metabolic activation: with and without	Negative	OECD 476 In vitro Mammalian Cell Gene Mutation Test
2,6-di-tert-butyl-p-cresol	-	Experiment: In vitro Subject: Bacteria	Negative	-
	-	Experiment: In vitro Subject: Mammalian-Animal Cell: Somatic	Negative	-
N,N'-Disalicylidene-1,2-propanediamine	OECD 1452813 473 In vitro Mammalian Chromosomal Aberration Test	Experiment: In vitro Subject: Mammalian-Animal Metabolic activation: With and without	Positive	OECD 1452813 473 In vitro Mammalian Chromosomal Aberration Test
	OECD 40M0600/11M240 471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria Metabolic activation: With and without	Negative	OECD 40M0600/11M240 471 Bacterial Reverse Mutation Test
	OECD 1452813 476 In vitro Mammalian Cell Gene Mutation Test	Experiment: In vitro Subject: Mammalian-Animal Metabolic activation: With and without	Negative	OECD 1452813 476 In vitro Mammalian Cell Gene Mutation Test
	OECD 26M0600/11X505 474 Mammalian Erythrocyte Micronucleus Test	Experiment: In vivo Subject: Mammalian-Animal	Negative	OECD 26M0600/11X505 474 Mammalian Erythrocyte Micronucleus Test
n,n-bis(2-ethylhexyl)-((1,2,4-triazol-1-yl)methyl) amine	OECD 471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria Metabolic activation: with and without	Negative	OECD 471 Bacterial Reverse Mutation Test
	OECD 476 In vitro Mammalian Cell Gene Mutation Test	Experiment: In vitro Subject: Mammalian-Animal Metabolic activation: with and without	Negative	OECD 476 In vitro Mammalian Cell Gene Mutation Test
	OECD 473 In vitro Mammalian Chromosomal Aberration Test	Experiment: In vitro Subject: Mammalian-Human Metabolic activation: with and without	Negative	OECD 473 In vitro Mammalian Chromosomal

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			Aberration Test

Reproductive toxicity

Product/ingredient name	Test	Species	Result	Dose
2-ethylhexan-1-ol	OECD 416 416 Two-Generation Reproduction Toxicity Study	Rat - Male, Female	-	Oral: 149 mg/kg
N,N'-Disalicylidene-1,2-propanediamine	OECD 422 Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test	Rat - Male, Female	-	Oral: 75 mg/kg NOAEL P. and F1 generation
n,n-bis(2-ethylhexyl)-((1,2,4-triazol-1-yl)methyl) amine	OECD 421 Reproduction/ Developmental Toxicity Screening Test	Rat	-	Oral: 100 mg/kg

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Hydrocarbons C10, Aromatics, <1% Naphthalene, [Solvent naphtha (petroleum), heavy arom.]	Category 3	-	Narcotic effects
2-ethylhexan-1-ol	Category 3	-	Respiratory tract irritation
Reaction mass of ethylbenzene and xylene	Category 3	-	Respiratory tract irritation
Benzaldehyde	Category 3	-	Respiratory tract irritation

Information on likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.

Skin contact : Defatting to the skin. May cause skin dryness and irritation. May cause an allergic skin reaction.

Ingestion : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Inhalation : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced foetal weight
increase in foetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
dryness
cracking
blistering may occur
reduced foetal weight

SECTION 11: Toxicological information

increase in foetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
stomach pains
nausea or vomiting
reduced foetal weight
increase in foetal deaths
skeletal malformations

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

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

General : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. 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 : May damage the unborn child.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : May damage fertility.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

No known significant effects or critical hazards.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Test	Species	Exposure	Result
Hydrocarbons C10, Aromatics, <1% Naphthalene, [Solvent naphtha (petroleum), heavy arom.]	-	Algae	72 hours	Acute EC50 1 to 3 mg/l
	-	Daphnia	48 hours	Acute EC50 3 to 10 mg/l
	-	Fish	96 hours	Acute LC50 2 to 5 mg/l
Reaction mass of 2,6-di-tert-butylphenol and 2,4,6-tri-tert-butylphenol.	OECD 201 Alga, Growth Inhibition Test	Algae - *S. capricornutum*	72 hours	Acute EC50 4.9 mg/l Key data sources
	EU C.2 202 Daphnia sp. Acute Immobilisation Test	Daphnia	48 hours	Acute EC50 0.4 mg/l Key data sources
	EU C.1 203 Fish, Acute Toxicity Test	Fish - *Oncorhynchus mykiss*	96 hours	Acute LC50 0.3 mg/l Key data sources
2-ethylhexan-1-ol	-	Algae	72 hours	Acute EC50 11.5 mg/l
	-	Daphnia - Daphnia	48 hours	Acute EC50 39 mg/l

SECTION 12: Ecological information

Reaction mass of ethylbenzene and xylene	-	Fish - Oncorhynchus mykiss	96 hours	Acute LC50 3.3 mg/l
	OECD 203 Fish, Acute Toxicity Test	Fish - *Oncorhynchus mykiss*	96 hours	Acute LC50 2.6 mg/l Fresh water
	EPA 600/4-91-003	Daphnia - *Ceriodaphnia dubia*	7 days	Chronic NOEC 0.96 mg/l Fresh water
	-	Fish - *Oncorhynchus mykiss*	56 days	Chronic NOEC >1.3 mg/l Fresh water
2,6-di-tert-butyl-p-cresol	EPA QSAR ECOSAR v1.00a	Algae	96 hours	Acute EC50 0.758 mg/l Estimated.
	OECD 202 Daphnia sp. Acute Immobilisation Test	Daphnia	48 hours	Acute EC50 0.48 mg/l
	EPA QSAR ECOSAR v1.00a	Fish	96 hours	Acute LC50 0.199 mg/l Estimated.
Benzaldehyde	-	Fish - Lepomis macrochirus	96 hours	Acute LC50 1.07 mg/l
	-	Fish - Pimephales promelas	96 hours	Acute LC50 7.61 mg/l
N,N'-Disalicylidene-1,2-propanediamine	OECD 60E0600/11X329 201 Alga, Growth Inhibition Test	Algae	72 hours	Acute EC10 0.116 mg/l Measured Fresh water
	OECD 60E0600/11X329 209 Activated Sludge, Respiration Inhibition Test	Algae	3 hours	Acute EC20 18 mg/l Nominal Fresh water
	OECD 60E0600/11X329 209 Activated Sludge, Respiration Inhibition Test	Algae	3 hours	Acute EC50 4.5 mg/l Nominal Fresh water
	OECD 60E0600/11X329 201 Alga, Growth Inhibition Test	Algae	72 hours	Acute EC50 1.12 mg/l Measured Fresh water
	OECD 50E0600/11X328 202 Daphnia sp. Acute Immobilisation Test	Daphnia	48 hours	Acute EC50 3.16 mg/l Measured Fresh water
	OECD 10F0714/885069 203 Fish, Acute Toxicity Test	Fish	96 hours	Acute LC50 46 mg/l Fresh water
	OECD 50E0600/11X328 202 Daphnia sp. Acute Immobilisation Test	Daphnia	48 hours	Acute NOEC 1.77 mg/l Measured Fresh water
n,n-bis(2-ethylhexyl)-(1,2,4-triazol-1-yl)methyl) amine	OECD 201 Alga, Growth Inhibition Test	Algae - *Desmodesmus subspicatus*	72 hours	Acute EC50 >1 mg/l Fresh water
	EU C.2 (Acute Toxicity for Daphnia)	Daphnia	48 hours	Acute EC50 2.2 mg/l Fresh water
	OECD 203 Fish, Acute Toxicity Test	Fish - *Danio rerio*	96 hours	Acute LC50 1.1 mg/l Fresh water
naphthalene	-	Daphnia - Water flea - *Daphnia magna*	48 hours	Acute EC50 1.96 mg/l Fresh water
	-	Crustaceans - Daggerblade grass shrimp - *Palaemonetes pugio*	48 hours	Acute LC50 2350 µg/l Marine water
	-	Fish - Oncorhynchus mykiss	96 hours	Acute LC50 1.6 mg/l
	-	Crustaceans - Fiddler crab - *Uca pugnax* - Adult	3 weeks	Chronic NOEC 0.5 mg/l Marine water
	-	Fish - Mozambique tilapia - *Oreochromis mossambicus*	60 days	Chronic NOEC 1.5 mg/l Fresh water
1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran	OECD	Daphnia - Water flea - *Daphnia magna*	48 hours	Acute LC50 0.194 mg/l Fresh water
	ASTM	Fish - Oriental	96	Acute LC50 491.2 µg/l

SECTION 12: Ecological information

		weatherfish - *Misgurnus anguillicaudatus* - Larvae	hours	Fresh water
	OECD	Daphnia - Water flea - *Daphnia magna*	21 days	Chronic NOEC 0.111 mg/l Fresh water
	OECD	Fish - Fathead minnow - *Pimephales promelas* - Egg	32 days	Chronic NOEC 0.068 mg/l Fresh water

12.2 Persistence and degradability

Product/ingredient name	Test	Result
2-ethylhexan-1-ol	OECD 301C Ready Biodegradability - Modified MITI Test (I)	79 to 99.9 % - Readily - 14 days
	OECD 301F Ready Biodegradability - Manometric Respirometry Test	>60 % - Readily - 28 days
2,6-di-tert-butyl-p-cresol	-	4.5 % - 28 days
N,N'-Disalicylidene-1,2-propanediamine	OECD 99/0321/26/1 301F Ready Biodegradability - Manometric Respirometry Test	70 % - Readily - 28 days
n,n-bis(2-ethylhexyl)-(1,2,4-triazol-1-yl)methyl) amine	OECD 301B Ready Biodegradability - CO2 Evolution Test	5 to 9 % - Not readily - 28 days

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Hydrocarbons C10, Aromatics, <1% Naphthalene, [Solvent naphtha (petroleum), heavy arom.]	-	-	Inherent
Reaction mass of 2,6-di-tert-butylphenol and 2,4,6-tri-tert-butylphenol.	Fresh water 73.5 days, 20°C	<1 day(s)	Not readily
2-ethylhexan-1-ol	-	-	Readily
Reaction mass of ethylbenzene and xylene	-	-	Readily
2,6-di-tert-butyl-p-cresol	-	-	Not readily
Benzaldehyde	-	-	Readily
2,4,6-tri-tert-butylphenol	-	-	Not readily
n,n-bis(2-ethylhexyl)-(1,2,4-triazol-1-yl)methyl) amine	-	-	Not readily
2-phenylethanol	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Hydrocarbons C10, Aromatics, <1% Naphthalene, [Solvent naphtha (petroleum), heavy arom.]	2.8 to 6.5	<100	Low
Reaction mass of 2,6-di-tert-butylphenol and 2,4,6-tri-tert-butylphenol.	4.9	-	High
2-ethylhexan-1-ol	2.9	25.33	Low
Reaction mass of ethylbenzene and xylene	3.12	8.1 to 25.9	Low
2,6-di-tert-butyl-p-cresol	5.2	598	High
Benzaldehyde	1.48	-	Low
2,4,6-tri-tert-butylphenol	6.06	13803.84	High
N,N'-Disalicylidene-	1.5	-	Low

SECTION 12: Ecological information

1,2-propanediamine n,n-bis(2-ethylhexyl)-((1,2,4-triazol-1-yl)methyl) amine	5.3	-	High
naphthalene	3.4	36.5 to 168	Low
1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno [5,6-c]pyran	5.3	2507	High
methyl cinnamate	2.62	-	Low
2-phenylethanol	1.36	-	Low

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 Endocrine disrupting properties

No known significant effects or critical hazards.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

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

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. 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.

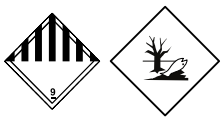
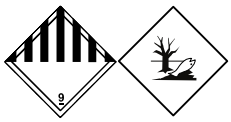
Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal : The generation of waste should be avoided or 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. 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	UN3082	UN3082	UN3082	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Solvent naphtha (petroleum), heavy arom., phenol, 2,6-di-tert-butyl-)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Solvent naphtha (petroleum), heavy arom., phenol, 2,6-di-tert-butyl-)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Solvent naphtha (petroleum), heavy arom., phenol, 2,6-di-tert-butyl-). Marine pollutant (Solvent naphtha (petroleum), heavy arom., phenol, 2,6-di-tert-butyl-)	Environmentally hazardous substance, liquid, n.o.s. (Solvent naphtha (petroleum), heavy arom., phenol, 2,6-di-tert-butyl-)
14.3 Transport hazard class(es)	9 	9 	9 	9 
14.4 Packing group	III	III	III	III
14.5 Environmental hazards	Yes.	Yes.	Yes.	Yes.
Additional information	This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. **Hazard identification number** 90 **Limited quantity** 5 L **Special provisions** 274, 335, 601, 375 **Tunnel code** (-)	This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. **Special provisions** 274, 335, 375, 601	This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. **Emergency schedules** F-A, S-F **Special provisions** 274, 335, 969	
14.6 Special precautions for user				
14.7 Maritime transport in bulk according to IMO instruments				

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

SECTION 15: Regulatory information

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 : Restricted to professional users.

Other EU regulations

VOC : The provisions of Directive 2004/42/EC on VOC apply to this product. Refer to the product label and/or technical data sheet for further information.

VOC for Ready-for-Use Mixture : Not available.

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

Explosive precursors : Not applicable.

Seveso Directive - Reporting thresholds (in tonnes)

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
E2	200	500

Ozone depleting substances (1005/2009/EU)

Not listed.

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

Not listed.

Persistent Organic Pollutants

Not listed.

National regulations

Chemical Weapons Convention List Schedule I Chemicals :Not listed

Chemical Weapons Convention List Schedule II Chemicals :Not listed

Chemical Weapons Convention List Schedule III Chemicals :Not listed

International lists

Australia inventory (AIIC) :Not determined.

Canada inventory :Not determined.

China inventory (IECSC) :Not determined.

EU REACH Status :Please contact your supplier for information on the REACH status of this material.

Japan inventory :At least one component is not listed.

Korea REACH Status :Please contact your supplier for information on the REACH status of this material.

New Zealand Inventory of Chemicals (NZIoC) :All components are listed or exempted.

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Philippines inventory (PICCS) :Not determined.

Taiwan REACH Status :Please contact your supplier for information on the REACH status of this material.

Turkey REACH Status :Please contact your supplier for information on the REACH status of this material.

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

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

Not to be used for hydraulic fracking applications

SECTION 16: Other information

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

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

Classification	Justification
Eye Dam. 1, H318	Calculation method
Skin Sens. 1, H317	Calculation method
Repr. 1B, H360FD	Calculation method
STOT SE 3, H336	Calculation method
Asp. Tox. 1, H304	Calculation method
Aquatic Chronic 2, H411	Calculation method

Full text of abbreviated H statements :

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
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.

SECTION 16: Other information

H336	May cause drowsiness or dizziness.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H351	Suspected of causing cancer.
H360	May damage fertility or the unborn child.
H360D	May damage the unborn child.
H360FD	May damage fertility. May damage the unborn child.
H361d	Suspected of damaging the unborn child.
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.
EUH066	Repeated exposure may cause skin dryness or cracking.

Full text of classifications [CLP/GHS] :

Acute Tox. 3	ACUTE TOXICITY - Category 3
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Aquatic Chronic 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Carc. 1B	CARCINOGENICITY - Category 1B
Carc. 2	CARCINOGENICITY - Category 2
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
Muta. 2	GERM CELL MUTAGENICITY - Category 2
Repr. 1B	REPRODUCTIVE TOXICITY - Category 1B
Repr. 2	REPRODUCTIVE TOXICITY - Category 2
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITISATION - Category 1
Skin Sens. 1A	SKIN SENSITISATION - Category 1A
Skin Sens. 1B	SKIN SENSITISATION - Category 1B
STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

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Emergency contact numbers for local language support in Asia Pacific region

Country information	Languages supported	Telephone no.:	Location
Australia	English	+61 2 8014 4558	Australia
Bangladesh	Bengali, English	+65 3158 1200	Singapore
China	Mandarin, English	400 120 6011	Beijing China
India	Hindi, English	+65 3158 1198	Singapore
India (local toll free number)	Hindi, English	000800 100 7479	India
Indonesia (local toll free number)	Bahasa Indonesian, English	00780 3011 0293	Indonesia
Japan	Japanese, English	+81 3 4578 9341	Japan

SECTION 16: Other information

Korea	Korean, English	+65 3158 1285	Singapore
Malaysia	Bahasa Malaysian, English	+60 3 6207 4347	Malaysia
New Zealand	English	+64 9929 1483	New Zealand
Pakistan	Urdu, English	+65 3158 1329	Singapore
Philippines	Tagalog, English	+63 2 8231 2149	Singapore
Sri Lanka	Sinhalese, English	+65 3158 1195	Singapore
Thailand (local toll free number)	Thai, English	001800 1 2066 6751	Thailand
Vietnam	Vietnamese, English	+65 3158 1255	Singapore

Notice to reader

The information in this Safety Data Sheet is based on the present state of knowledge and current legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications. The product should not be used for purposes other than those shown in Section 1 without first referring to the supplier and obtaining written handling instructions. As the specific conditions of use of the product are outside the supplier's control, the user is responsible for ensuring that the requirements of relevant legislation are complied with. The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation.