

SAFETY DATA SHEET



HARTÖL 6448-15 - All variants

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

1.1 Product identifier

Product name : HARTÖL 6448-15 - All variants

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

Product use : Paint.

1.3 Details of the supplier of the safety data sheet

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

e-mail address of person responsible for this SDS : Prod-safe@teknos.com

National contact

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

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number : Malta Competition and Consumer Affairs Authority (MCCAA): +356 2395 2000

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]

Repr. 1B, H360FD

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 : **D**anger

Hazard statements : **H**360FD - May damage fertility. May damage the unborn child.

Precautionary statements

Prevention : **P**201 - Obtain special instructions before use.
P280 - Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection.

Response : **P**308 + **P**313 - IF exposed or concerned: Get medical advice or attention.

Storage : Not applicable.

Disposal : **P**501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazardous ingredients : **C**ontains: 2-ethylhexanoic acid, zirconium salt and 2-ethylhexanoic acid, manganese salt

Supplemental label elements : Contains Cobalt bis(2-ethylhexanoate). May produce an allergic reaction.

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HARTÖL 6448-15 - All variants

Label No : 51703

SECTION 2: Hazards identification

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Restricted to professional users.

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
White mineral oil (petroleum)	EC: 232-455-8 CAS: 8042-47-5	≤10	Asp. Tox. 1, H304	-	[1] [2]
Naphtha (petroleum), hydrotreated light	REACH #: 01-2119475515-33 EC: 265-151-9 CAS: 64742-49-0 Index: 649-328-00-1	≤10	Flam. Liq. 3, H226 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 3, H412	-	[1]
2-ethylhexanoic acid, zirconium salt	REACH #: 01-2119979088-21 EC: 245-018-1 CAS: 22464-99-9 Index: 607-230-00-6	<0.3	Repr. 1B, H360D	-	[1]
2-ethylhexanoic acid, manganese salt	REACH #: 01-2119979087-23 EC: 240-085-3 CAS: 15956-58-8 Index: 607-230-00-6	<0.3	Eye Irrit. 2, H319 Repr. 1B, H360D STOT RE 2, H373 Aquatic Chronic 2, H411	-	[1] [2]
Cobalt bis (2-ethylhexanoate)	REACH #: 01-2119524678-29 EC: 205-250-6 CAS: 136-52-7 Index: 607-230-00-6	<0.1	Eye Irrit. 2, H319 Skin Sens. 1A, H317 Repr. 1B, H360FD Aquatic Acute 1, H400 Aquatic Chronic 3, H412 See Section 16 for the full text of the H statements declared above.	M [Acute] = 1	[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

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

SECTION 4: First aid measures

4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
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 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

SECTION 5: Firefighting measures

- Hazards from the substance or mixture** : In a fire or if heated, a pressure increase will occur and the container may burst.
- Hazardous combustion 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 spill material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

- : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and material for containment and cleaning up

- Small spill** :  Stop leak if without risk. Move containers from spill area. Absorb with an inert 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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. 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.


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). 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 ingest. Avoid breathing vapour or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not

SECTION 7: Handling and storage

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

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. 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. See Section 10 for incompatible materials before handling or use.

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

Product/ingredient name	Exposure limit values
White mineral oil (petroleum) 2-ethylhexanoic acid, manganese salt	Ministry of Health (Malta, 4/2024) [mineral oils that have been used before in internal combustion engines to lubricate and cool the moving parts within the engine] Absorbed through skin. EU OEL (Europe, 1/2022) [Manganese and inorganic manganese compounds] TWA 8 hours: 0.05 mg/m ³ ((as manganese)). Form: Respirable fraction. TWA 8 hours: 0.2 mg/m ³ ((as manganese)). Form: Inhalable fraction.

Biological exposure indices

Product/ingredient name	Exposure indices
No exposure indices known.	

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

Result

SECTION 8: Exposure controls/personal protection

White mineral oil (petroleum)

DNEL - General population - Long term - Oral

25 mg/kg bw/day

Effects: Systemic

DNEL - General population - Long term - Inhalation

34.78 mg/m³

Effects: Systemic

DNEL - General population - Long term - Dermal

93.02 mg/kg bw/day

Effects: Systemic

DNEL - Workers - Long term - Inhalation

164.56 mg/m³

Effects: Systemic

DNEL - Workers - Long term - Dermal

217.05 mg/kg bw/day

Effects: Systemic

Naphtha (petroleum), hydrotreated light

DNEL - General population - Long term - Oral

149 mg/kg bw/day

Effects: Systemic

DNEL - General population - Long term - Dermal

149 mg/kg bw/day

Effects: Systemic

DNEL - Workers - Long term - Dermal

300 mg/kg bw/day

Effects: Systemic

DNEL - General population - Long term - Inhalation

0.41 mg/m³

Effects: Systemic

DNEL - Workers - Long term - Inhalation

1.9 mg/m³

Effects: Systemic

DNEL - General population - Long term - Inhalation

178.57 mg/m³

Effects: Local

DNEL - General population - Short term - Inhalation

640 mg/m³

Effects: Local

DNEL - Workers - Long term - Inhalation

837.5 mg/m³

Effects: Local

DNEL - Workers - Short term - Inhalation

1066.67 mg/m³

Effects: Local

DNEL - General population - Short term - Inhalation

1152 mg/m³

Effects: Systemic

DNEL - Workers - Short term - Inhalation

1286.4 mg/m³

Effects: Systemic

2-ethylhexanoic acid, zirconium salt

DNEL - General population - Long term - Inhalation

SECTION 8: Exposure controls/personal protection

0.58 mg/m³
Effects: Systemic

DNEL - Workers - Long term - Inhalation

2.351 mg/m³
Effects: Systemic

DNEL - General population - Long term - Oral

0.167 mg/kg bw/day
Effects: Systemic

DNEL - General population - Long term - Dermal

0.167 mg/kg bw/day
Effects: Systemic

DNEL - Workers - Long term - Dermal

0.333 mg/kg bw/day
Effects: Systemic

DNEL - General population - Long term - Inhalation

0.7 mg/m³
Effects: Local

DNEL - Workers - Long term - Inhalation

2.82 mg/m³
Effects: Local

2-ethylhexanoic acid, manganese salt

DNEL - General population - Long term - Inhalation

0.024 mg/m³
Effects: Local

DNEL - General population - Long term - Inhalation

0.024 mg/m³
Effects: Systemic

DNEL - General population - Long term - Oral

0.167 mg/kg bw/day
Effects: Systemic

DNEL - General population - Long term - Dermal

0.167 mg/kg bw/day
Effects: Systemic

DNEL - Workers - Long term - Dermal

0.333 mg/kg bw/day
Effects: Systemic

DNEL - Workers - Long term - Inhalation

0.83 mg/m³
Effects: Local

DNEL - Workers - Long term - Inhalation

0.83 mg/m³
Effects: Systemic

Cobalt bis(2-ethylhexanoate)

DNEL - General population - Long term - Inhalation

37 µg/m³
Effects: Local

DNEL - General population - Long term - Oral

175 µg/kg bw/day
Effects: Systemic

DNEL - Workers - Long term - Inhalation

235.1 µg/m³

SECTION 8: Exposure controls/personal protection

Effects: Local

PNECs

Not available.

8.2 Exposure controls

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. 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: safety glasses with side-shields.

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.

Recommendations : Wear suitable gloves tested to EN374.

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

1 - 4 hours (breakthrough time): 4H / Silver Shield® gloves.

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

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

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

Filter type: A

Filter type (spray application): 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

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid.

Colour : Various

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Version : 1.02 8/17

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SECTION 9: Physical and chemical properties

Odour : Slight
Odour threshold : Not available.
Melting point/freezing point : Not available.
Initial boiling point and boiling range :

Ingredient name	°C	°F	Method
White mineral oil (petroleum)	218 to 800	424.4 to 1472	ASTM D 1160
Linseed-oil	316.12	601	

Flammability : Not available.
Lower and upper explosion limit : Lower: 1.05% (Naphtha (petroleum), hydrotreated light)
Upper: 7.6% (Naphtha (petroleum), hydrotreated light)
Flash point : Closed cup: >60°C (>140°F)
Auto-ignition temperature :

Ingredient name	°C	°F	Method
Polyethylene wax	244.85	472.7	
Naphtha (petroleum), hydrotreated light	280 to 470	536 to 878	DIN EN 14522

Decomposition temperature : Not available.
pH : Not available.
Viscosity : Not available.
Solubility(ies) :
Not available.

Solubility in water : Not available.
Partition coefficient: n-octanol/ water : Not applicable.
Vapour pressure :

Ingredient name	Vapour Pressure at 20°C			Vapour pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
Naphtha (petroleum), hydrotreated light	42.15358	5.6	OECD 104	357.48039	47.7	OECD 104
White mineral oil (petroleum)	0.07501	0.01	OECD 104			

Relative density : Not available.
Density : 0.9 g/cm³
Vapour density : Not available.
Particle characteristics
Median particle size : Not applicable.

9.2 Other information

9.2.1 Information with regard to physical hazard classes

Explosive properties : Not available.
Oxidising properties : Not available.

9.2.2 Other safety characteristics

Not applicable.

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

White mineral oil (petroleum)

Result

Rat - Oral - LD50
>5000 mg/kg

2-ethylhexanoic acid, zirconium salt

Rabbit - Dermal - LD50
>5 g/kg

Rat - Oral - LD50

>5 g/kg

Toxic effects: Behavioral - Somnolence (general depressed activity)

Cobalt bis(2-ethylhexanoate)

Rabbit - Dermal - LD50

>5 g/kg

Toxic effects: Skin After topical exposure - Primary irritation

Rat - Oral - LD50

1.22 g/kg

Toxic effects: Behavioral - Ataxia Behavioral - Coma

Conclusion/Summary [Product] : Not available.

Acute toxicity estimates

N/A

Skin corrosion/irritation

Not available.

Conclusion/Summary [Product] : Not available.

Serious eye damage/eye irritation

Not available.

Conclusion/Summary [Product] : Not available.

Respiratory corrosion/irritation

Not available.

SECTION 11: Toxicological information

Conclusion/Summary [Product] : Not available.

Respiratory or skin sensitization

Not available.

Skin

Conclusion/Summary [Product] : Not available.

Respiratory

Conclusion/Summary [Product] : Not available.

Germ cell mutagenicity

Not available.

Conclusion/Summary [Product] : Not available.

Carcinogenicity

Not available.

Conclusion/Summary [Product] : Not available.

Reproductive toxicity

Not available.

Conclusion/Summary [Product] : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name

Naphtha (petroleum), hydrotreated light

Result

STOT SE 3, H336 (Narcotic effects)

Specific target organ toxicity (repeated exposure)

Product/ingredient name

Z-ethylhexanoic acid, manganese salt

Result

STOT RE 2, H373

Aspiration hazard

Product/ingredient name

White mineral oil (petroleum)
Naphtha (petroleum), hydrotreated light

Result

ASPIRATION HAZARD - Category 1
ASPIRATION HAZARD - Category 1

Information on likely routes of exposure

Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

SECTION 11: Toxicological information

- Skin contact** : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
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.

Potential chronic health effects

Not available.

Conclusion/Summary [Product] : Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : May damage fertility. May damage the unborn child.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

Conclusion/Summary [Product] : The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Not available.

Conclusion/Summary [Product] : Not available.

12.2 Persistence and degradability

Not available.

Conclusion/Summary [Product] : Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
White mineral oil (petroleum)	>6	-	High
Naphtha (petroleum), hydrotreated light	2.2 to 5.2	10 to 2500	High
2-ethylhexanoic acid, zirconium salt	-	2.96	Low
2-ethylhexanoic acid, manganese salt	-	2.96	Low
Cobalt bis(2-ethylhexanoate)	-	15600	High

SECTION 12: Ecological information

12.4 Mobility in soil

Soil/water partition coefficient

Product/ingredient name	logKoc	Koc
Cobalt bis(2-ethylhexanoate)	1.82	66.4852

Results of PMT and vPvM assessment

Product/ingredient name	PMT	P	M	T	vPvM	vP	vM
White mineral oil (petroleum)	No	No	No	No	No	No	No
Naphtha (petroleum), hydrotreated light	No	No	No	No	No	No	No
2-ethylhexanoic acid, zirconium salt	No	No	No	No	No	No	No
2-ethylhexanoic acid, manganese salt	No	No	No	No	No	No	No
Cobalt bis(2-ethylhexanoate)	No	No	No	No	No	No	No

Mobility : Not available.

Conclusion/Summary : The product does not meet the criteria to be considered as a PMT or vPvM.

12.5 Results of PBT and vPvB assessment

Regulation (EC) No. 1907/2006 [REACH]

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
White mineral oil (petroleum)	No	No	No	No	No	No	No
Naphtha (petroleum), hydrotreated light	No	No	No	No	No	No	No
2-ethylhexanoic acid, zirconium salt	No	No	No	No	No	No	No
2-ethylhexanoic acid, manganese salt	No	No	No	No	No	No	No
Cobalt bis(2-ethylhexanoate)	No	No	No	No	No	No	No

Regulation (EC) No. 1272/2008 [CLP]

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
White mineral oil (petroleum)	No	No	No	No	No	No	No
Naphtha (petroleum), hydrotreated light	No	No	No	No	No	No	No
2-ethylhexanoic acid, zirconium salt	No	No	No	No	No	No	No
2-ethylhexanoic acid, manganese salt	No	No	No	No	No	No	No
Cobalt bis(2-ethylhexanoate)	No	No	No	No	No	No	No

Conclusion/Summary : The product does not meet the criteria to be considered as a PBT or vPvB.

Regulation (EC) No. 1272/2008 [CLP]

12.6 Endocrine disrupting properties

Not available.

Conclusion/Summary [Product] : The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

12.7 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.

European waste catalogue (EWC) : 08.01.11

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 or ID number	Not regulated.	9003	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	SUBSTANCES WITH A FLASH-POINT ABOVE 60 °C AND NOT MORE THAN 100 °C (Naphtha (petroleum), hydrotreated light)	-	-
14.3 Transport hazard class(es)	-	9	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.

Additional information

ADN : The product is only regulated as a dangerous good when transported in tank vessels.

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 Maritime transport in bulk according to IMO instruments : Not relevant/applicable due to nature of the product.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

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

Product/ingredient name	%	Designation [Usage]
<input checked="" type="checkbox"/> HARTÖL 6448-15	≥90	3 30

Labelling : Restricted to professional users.

Other EU regulations

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

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

Explosive precursors : Not applicable.

Ozone depleting substances (EU 2024/590)

Not listed.

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

Not listed.

Persistent Organic Pollutants

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

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

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
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
SGG = Segregation Group
vPvB = Very Persistent and Very Bioaccumulative

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

Classification	Justification
🔍 Repr. 1B, H360FD	Calculation method - Notes 11/12 summation process

Full text of abbreviated H statements

🔍 H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H360D	May damage the unborn child.
H360FD	May damage fertility. May damage the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

🔍 Aquatic Acute 1	SHORT-TERM (ACUTE) 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
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
Repr. 1B	REPRODUCTIVE TOXICITY - Category 1B
Skin Sens. 1A	SKIN SENSITISATION - Category 1A
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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Version : 1.02

HARTÖL 6448-15

All variants

Notice to reader

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

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Version : 1.02 16/17

HARTÖL 6448-15 - All variants

Label No : 51703

