# Jotatemp 650

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

### 1.1 Product identifier

**Product name** : Jotatemp 650

**Product code** : 9240

**Product description** : Paint.

**Product type** : Liquid.

**Other means of identification** : Not available.

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

| Identified uses |
| --- |
| Uses in Coatings - Professional use |

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

EL MOHANDES JOTUN S.A.E.
INDUSTRIAL AREA - ISMAILIA
P.O. BOX NO. 203
ISMAILIA - EGYPT
FAX NO. : 002064481030
TELF NO: 002064481032
SDSJotun@jotun.com

### 1.4 Emergency telephone number

SHE Dept. Jotun AS, Norway
+47 33 45 70 00

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

**Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]**

Flam. Liq. 2, H225
Asp. Tox. 1, H304
Aquatic Chronic 3, H412

**Classification according to Directive 1999/45/EC [DPD]**

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

**Classification** : F; R11
Xn; R65
R52/53

**Physical/chemical hazards** : Highly flammable.

**Human health hazards** : Harmful: may cause lung damage if swallowed.

**Environmental hazards** : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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

See Section 11 for more detailed information on health effects and symptoms.

## SECTION 2: Hazards identification

### 2.2 Label elements

**Hazard pictograms** :

**Signal word** : Danger.

**Hazard statements** : Highly flammable liquid and vapour.
May be fatal if swallowed and enters airways.
Harmful to aquatic life with long lasting effects.

**Precautionary statements**

**General** : Not applicable.

**Prevention** : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Avoid release to the environment.

**Response** : IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting.

**Storage** : Store in a well-ventilated place. Keep cool.

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

**Supplemental label elements** : Not applicable.

### 2.3 Other hazards

**Other hazards which do not result in classification** : None known.

## SECTION 3: Composition/information on ingredients

**Substance/mixture** : Mixture

| Product/ingredient name | Identifiers | % | Classification 67/548/EEC | Classification Regulation (EC) No. 1272/2008 [CLP] | Type | Notes |
|---|---|---|---|---|---|---|
| Solvent naphtha (petroleum), heavy arom. | REACH #: 01-2119463583-34<br>EC: 265-198-5<br>CAS: 64742-94-5 | ≥10 - ≤18 | Xn; R65<br>R66, R67<br>N; R51/53 | STOT SE 3, H336<br>Asp. Tox. 1, H304<br>Aquatic Chronic 2, H411<br>EUH066 | [1] | H |
| xylene | REACH #: 01-2119488216-32<br>EC: 215-535-7<br>CAS: 1330-20-7<br>Index: 601-022-00-9 | ≤5 | R10<br>Xn; R20/21<br>Xi; R38 | Flam. Liq. 3, H226<br>Acute Tox. 4, H312<br>Acute Tox. 4, H332<br>Skin Irrit. 2, H315<br>Eye Irrit. 2, H319 | [1] [2] | C |
| ethylbenzene | REACH #: 01-2119489370-35<br>EC: 202-849-4<br>CAS: 100-41-4<br>Index: 601-023-00-4 | ≤3 | F; R11<br>Xn; R20, R48/20, R65 | Flam. Liq. 2, H225<br>Acute Tox. 4, H332<br>STOT RE 2, H373 (hearing organs)<br>Asp. Tox. 1, H304 | [1] [2] | - |
| toluene | REACH #: 01-2119471310-51<br>EC: 203-625-9<br>CAS: 108-88-3<br>Index: 601-021-00-3 | ≤1,6 | F; R11<br>Repr. Cat. 3; R63<br>Xn; R48/20, R65<br>Xi; R38<br>R67 | Flam. Liq. 2, H225<br>Skin Irrit. 2, H315<br>Repr. 2, H361d (Unborn child)<br>STOT SE 3, H336<br>STOT RE 2, H373<br>Asp. Tox. 1, H304 | [1] [2] | 4 |
| naphthalene | REACH #: 01-2119463583-34<br>EC: 202-049-5<br>CAS: 91-20-3<br>Index: 601-052-00-2 | ≤0,18 | Carc. Cat. 3; R40<br>Xn; R22<br>N; R50/53 | Acute Tox. 4, H302<br>Carc. 2, H351<br>Aquatic Acute 1, H400 (M=1)<br>Aquatic Chronic 1, | [1] [2] | - |

## SECTION 3: Composition/information on ingredients

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | **See Section 16 for the full text of the R-phrases declared above.** | H410 (M=1)<br>**See Section 16 for the full text of the H statements declared above.** | | |

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

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 or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit
[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
[5] Substance of equivalent concern

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

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

**General** : In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.

**Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

**Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.

**Eye contact** : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.

**Ingestion** : If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

### 4.2 Most important symptoms and effects, both acute and delayed

**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** : May be fatal if swallowed and enters airways.

**Over-exposure signs/symptoms**

**Eye contact** : No specific data.

**Inhalation** : No specific data.

**Skin contact** : No specific data.

**Ingestion** : Adverse symptoms may include the following:
nausea or vomiting

### 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** : Recommended: alcohol-resistant foam, $CO_2$, powders, water spray.

**Unsuitable extinguishing media** : Do not use water jet.

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

**Hazards from the substance or mixture** : Highly flammable liquid and vapour. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard. This material is harmful 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
metal oxide/oxides

### 5.3 Advice for firefighters

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

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

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. 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). Water polluting material. May be harmful to the environment if released in large quantities.

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

**Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

## 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

Prevent the creation of flammable or explosive concentrations of vapours in air and avoid vapour concentrations higher than the occupational exposure limits.
In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard.
Mixture may charge electrostatically: always use earthing leads when transferring from one container to another.
Operators should wear antistatic footwear and clothing and floors should be of the conducting type.
Keep away from heat, sparks and flame. No sparking tools should be used.
Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this mixture. Avoid inhalation of dust from sanding.
Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.
Put on appropriate personal protective equipment (see Section 8).
Never use pressure to empty. Container is not a pressure vessel.
Always keep in containers made from the same material as the original one.
Comply with the health and safety at work laws.
Do not allow to enter drains or watercourses.
**Information on fire and explosion protection**
Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air.

When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations.
**Notes on joint storage**
Keep away from: oxidising agents, strong alkalis, strong acids.
**Additional information on storage conditions**
Observe label precautions. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight. Keep away from sources of ignition. No smoking. Prevent unauthorised access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

### 7.3 Specific end use(s)

**Recommendations** : Not available.

**Industrial sector specific solutions** : Not available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

**Occupational exposure limits**

| Product/ingredient name | Exposure limit values |
|---|---|
| xylene | **EU OEL (Europe, 12/2009). Absorbed through skin. Notes: list of indicative occupational exposure limit values**<br>STEL: 442 mg/m³ 15 minutes.<br>STEL: 100 ppm 15 minutes.<br>TWA: 221 mg/m³ 8 hours.<br>TWA: 50 ppm 8 hours. |
| ethylbenzene | **EU OEL (Europe, 12/2009). Absorbed through skin. Notes: list of indicative occupational exposure limit values**<br>TWA: 100 ppm 8 hours. |

## SECTION 8: Exposure controls/personal protection

| | |
|---|---|
| | TWA: 442 mg/m³ 8 hours.<br>STEL: 200 ppm 15 minutes.<br>STEL: 884 mg/m³ 15 minutes. |
| toluene | **EU OEL (Europe, 12/2009). Absorbed through skin. Notes: list of indicative occupational exposure limit values**<br>TWA: 192 mg/m³ 8 hours.<br>TWA: 50 ppm 8 hours.<br>STEL: 384 mg/m³ 15 minutes.<br>STEL: 100 ppm 15 minutes. |
| naphthalene | **EU OEL (Europe, 12/2009). Notes: list of indicative occupational exposure limit values**<br>TWA: 10 ppm 8 hours.<br>TWA: 50 mg/m³ 8 hours. |

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**Derived no effect levels**

| Product/ingredient name | Type | Exposure | Value | Population | Effects |
|---|---|---|---|---|---|
| xylene | DNEL | Short term Inhalation | 289 mg/m³ | Workers | Systemic |
| | DNEL | Short term Inhalation | 289 mg/m³ | Workers | Local |
| | DNEL | Long term Dermal | 180 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Inhalation | 77 mg/m³ | Workers | Systemic |
| | DNEL | Long term Dermal | 108 mg/kg bw/day | Consumers | Systemic |
| | DNEL | Long term Inhalation | 14,8 mg/m³ | Consumers | Systemic |
| | DNEL | Long term Oral | 1,6 mg/kg bw/day | Consumers | Systemic |
| ethylbenzene | DNEL | Short term Inhalation | 293 mg/m³ | Workers | Local |
| | DNEL | Long term Dermal | 180 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Inhalation | 77 mg/m³ | Workers | Systemic |
| | DNEL | Long term Inhalation | 15 mg/m³ | Consumers | Systemic |
| | DNEL | Long term Oral | 1,6 mg/kg bw/day | Consumers | Systemic |

**Predicted no effect concentrations**

| Product/ingredient name | Type | Compartment Detail | Value | Method Detail |
|---|---|---|---|---|
| xylene | PNEC | Fresh water | 0,327 mg/l | - |
| | PNEC | Marine | 0,327 mg/l | - |
| | PNEC | Sewage Treatment Plant | 6,58 mg/l | - |
| | PNEC | Fresh water sediment | 12,46 mg/kg dwt | - |
| | PNEC | Marine water sediment | 12,46 mg/kg dwt | - |
| | PNEC | Soil | 2,31 mg/kg dwt | - |
| ethylbenzene | PNEC | Fresh water | 0,1 mg/l | - |
| | PNEC | Marine | 0,01 mg/l | - |

## SECTION 8: Exposure controls/personal protection

| | | | | |
|---|---|---|---|---|
| toluene | PNEC | Sewage Treatment Plant | 9,6 mg/l | - |
| | PNEC | Fresh water sediment | 13,7 mg/kg dwt | - |
| | PNEC | Soil | 2,68 mg/kg dwt | - |
| | PNEC | Secondary Poisoning | 20 mg/kg | - |
| | PNEC | Fresh water | 0,68 mg/l | - |
| | PNEC | Marine | 0,68 mg/l | - |
| | PNEC | Sewage Treatment Plant | 13,61 mg/l | - |
| | PNEC | Fresh water sediment | 16,39 mg/kg dwt | - |
| | PNEC | Marine water sediment | 16,39 mg/kg dwt | - |
| | PNEC | Soil | 2,89 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. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

**Individual protection measures**

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying to EN 166 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** : There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.
The breakthrough time must be greater than the end use time of the product.
The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.
Gloves should be replaced regularly and if there is any sign of damage to the glove material.
Always ensure that gloves are free from defects and that they are stored and used correctly.
The performance or effectiveness of the glove may be reduced by physical/ chemical damage and poor maintenance.
Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

Wear suitable gloves tested to EN374.
May be used, gloves(breakthrough time) 4 - 8 hours: neoprene, butyl rubber
Not recommended, gloves(breakthrough time) < 1 hour: PVC
Recommended, gloves(breakthrough time) > 8 hours: fluor rubber, Viton®, 4H, Teflon, polyvinyl alcohol (PVA), nitrile rubber

For right choice of glove materials, with focus on chemical resistance and time of penetration, seek advice by the supplier of chemical resistant gloves.

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.

## SECTION 8: Exposure controls/personal protection

**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** : If workers are exposed to concentrations above the exposure limit, they must use a respirator according to EN 140. Use respiratory mask with charcoal and dust filter when spraying this product, according to EN 14387(as filter combination A2-P2). In confined spaces, use compressed-air or fresh-air respiratory equipment. When use of roller or brush, consider use of charcoalfilter.

**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** : Grey. Black.

**Odour** : Aromatic.

**Odour threshold** : Not available.

**pH** : Not applicable.

**Melting point/freezing point** : Not applicable.

**Initial boiling point and boiling range** : >90°C

**Flash point** : Closed cup: 18°C

**Evaporation rate** : Highest known value: 3.22 (dimethyl carbonate) Weighted average: 1. 94compared with butyl acetate

**Flammability (solid, gas)** : Not applicable.

**Burning time** : Not applicable.

**Burning rate** : Not applicable.

**Upper/lower flammability or explosive limits** : 1.2 - 8%

**Vapour pressure** : Highest known value: 7.6 kPa (56.8 mm Hg) (at 20°C) (dimethyl carbonate). Weighted average: 1.84 kPa (13.8 mm Hg) (at 20°C)

**Vapour density** : Highest known value: 3.7 (Air = 1) (xylene). Weighted average: 3.39 (Air = 1)

**Relative density** : 1.88 g/cm³

**Solubility(ies)** : Insoluble in the following materials: cold water and hot water.

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

**Auto-ignition temperature** : 393 to 530°C (739.4 to 986°F)

**Decomposition temperature** : Not available.

**Viscosity** : Kinematic (23 °C): 0,612 $cm^2/s$ (61,2 $mm^2/s$)
Kinematic (40°C): >0,205 $cm^2/s$ (>20,5 $mm^2/s$)

**Explosive properties** : Not available.

**Oxidising properties** : Not available.

### 9.2 Other information

No additional information.

## SECTION 10: Stability and reactivity

**10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.

**10.2 Chemical stability** : The product is stable.

**10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

**10.4 Conditions to avoid** : Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

**10.5 Incompatible materials** : Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.

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

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.
Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.
If splashed in the eyes, the liquid may cause irritation and reversible damage.
Ingestion may cause nausea, diarrhea and vomiting.
This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|---|---|---|---|
| xylene | LC50 Inhalation Vapour | Rat | 20 mg/l | 4 hours |
| | LD50 Oral | Rat | 4300 mg/kg | - |
| | TDLo Dermal | Rabbit | 4300 mg/kg | - |
| ethylbenzene | LC50 Inhalation Gas. | Rabbit | 4000 ppm | 4 hours |
| | LD50 Dermal | Rabbit | >5000 mg/kg | - |
| | LD50 Oral | Rat | 3500 mg/kg | - |
| toluene | LC50 Inhalation Vapour | Rat | 49 g/m³ | 4 hours |
| | LD50 Oral | Rat | 636 mg/kg | - |
| naphthalene | LD50 Oral | Rat | 490 mg/kg | - |

**Acute toxicity estimates**

| Route | ATE value |
|---|---|
| Dermal | 26829,3 mg/kg |
| Inhalation (vapours) | 209,5 mg/l |

**Irritation/Corrosion**

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|---|---|---|---|---|---|
| toluene | Eyes - Mild irritant | Rabbit | - | 0,5 minutes 100 milligrams | - |
| | Eyes - Mild irritant | Rabbit | - | 870 Micrograms | - |
| | Eyes - Severe irritant | Rabbit | - | 24 hours 2 milligrams | - |
| | Skin - Mild irritant | Pig | - | 24 hours 250 microliters | - |
| | Skin - Mild irritant | Rabbit | - | 435 milligrams | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 20 milligrams | - |
| | Skin - Moderate irritant | Rabbit | - | 500 | - |

## SECTION 11: Toxicological information

| | | | | | |
|---|---|---|---|---|---|
| naphthalene | Skin - Mild irritant | Rabbit | - | milligrams<br>495<br>milligrams | - |
| | Skin - Severe irritant | Rabbit | - | 24 hours 0.<br>05 Mililiters | - |

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

| Product/ingredient name | Category | Route of exposure | Target organs |
|---|---|---|---|
| Solvent naphtha (petroleum), heavy arom. | Category 3 | Not applicable. | Narcotic effects |
| toluene | Category 3 | Not applicable. | Narcotic effects |

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

| Product/ingredient name | Category | Route of exposure | Target organs |
|---|---|---|---|
| ethylbenzene | Category 2 | Not determined | hearing organs |
| toluene | Category 2 | Not determined | Not determined |

**Aspiration hazard**

| Product/ingredient name | Result |
|---|---|
| Jotatemp 650 (mmi-wcs) | ASPIRATION HAZARD - Category 1 |
| Solvent naphtha (petroleum), heavy arom. | ASPIRATION HAZARD - Category 1 |
| ethylbenzene | ASPIRATION HAZARD - Category 1 |
| toluene | ASPIRATION HAZARD - Category 1 |

## SECTION 12: Ecological information

### 12.1 Toxicity

| Product/ingredient name | Result | Species | Exposure |
|---|---|---|---|
| Solvent naphtha (petroleum), heavy arom. | Acute EC50 <10 mg/l | Daphnia | 48 hours |
| | Acute IC50 <10 mg/l | Algae | 72 hours |
| | Acute LC50 <10 mg/l | Fish | 96 hours |
| ethylbenzene | Acute EC50 7,2 mg/l | Algae | 48 hours |
| | Acute EC50 2,93 mg/l | Daphnia | 48 hours |
| | Acute LC50 4,2 mg/l | Fish | 96 hours |
| naphthalene | Acute EC50 0,4 mg/l | Algae - Skeletonema costatum | 96 hours |
| | Acute EC50 1,6 ppm Fresh water | Daphnia - Daphnia magna | 48 hours |
| | Acute LC50 2800 µg/l Marine water | Crustaceans - Elasmopus pectenicrus - Adult | 48 hours |
| | Chronic NOEC 0,67 ppm Fresh water | Fish - Oncorhynchus kisutch | 40 days |

**Conclusion/Summary** : This material is harmful to aquatic life with long lasting effects.

### 12.2 Persistence and degradability

**Conclusion/Summary** : Not available.

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|---|---|---|---|
| Solvent naphtha (petroleum), heavy arom. | - | - | Not readily |
| xylene | - | - | Readily |
| ethylbenzene | - | - | Readily |
| naphthalene | - | - | Not readily |

### 12.3 Bioaccumulative potential

## SECTION 12: Ecological information

| Product/ingredient name | $LogP_{ow}$ | BCF | Potential |
|---|---|---|---|
| Solvent naphtha (petroleum), heavy arom. | 2.8 to 6.5 | 99 to 5780 | high |
| xylene | 3,12 | 8.1 to 25.9 | low |
| ethylbenzene | 3,6 | - | low |
| toluene | 2,73 | 90 | low |
| naphthalene | 3,4 | 36.5 to 168 | 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 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

Do not allow to enter drains or watercourses. Material and/or container must be disposed of as hazardous waste.

### European waste catalogue (EWC)

08 01 11* Waste paint and varnish containing organic solvents or other dangerous substances

## SECTION 14: Transport information

**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.

Transport in accordance with ADR/RID, IMDG/IMO and ICAO/IATA and national regulation.

**International transport regulations**

**14.1 UN number** : 1263

**14.2 UN proper shipping name** : Paint

**14.3 Transport hazard class(es)** : 3


**14.4 Packing group** : III

**14.5 Environmental hazards** : No.

**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.

**Additional information**

**ADR / RID** : Tunnel restriction code: (D/E)
Hazard identification number: 33
Special provisions: 640D

**IMDG** : **Emergency schedules (EmS)**
F-E, S-E

## SECTION 14: Transport information

**14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** : Not available.

## SECTION 15: Regulatory information

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

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

**Annex XIV - List of substances subject to authorisation**

**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** : Not applicable.

**Other EU regulations**

**Europe inventory** : Not determined.

**Black List Chemicals** : Not listed

**Priority List Chemicals** : Not determined

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

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

| Product/ingredient name | Carcinogenic effects | Mutagenic effects | Developmental effects | Fertility effects |
|---|---|---|---|---|
| toluene | - | - | Repr. 2, H361d (Unborn child) | - |
| naphthalene | Carc. 2, H351 | - | - | - |

**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

**15.2 Chemical safety assessment** : Not applicable.

## 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]
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number

## SECTION 16: Other information

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

| Classification | Justification |
|---|---|
| Flam. Liq. 2, H225 | On basis of test data |
| Asp. Tox. 1, H304 | Expert judgment |
| Aquatic Chronic 3, H412 | Calculation method |

**Full text of abbreviated H statements** :

| | |
|---|---|
| H225 | Highly flammable liquid and vapour. |
| H226 | Flammable liquid and vapour. |
| H302 | Harmful if swallowed. |
| H304 | May be fatal if swallowed and enters airways. |
| H312 | Harmful in contact with skin. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H336 | May cause drowsiness or dizziness. |
| H351 | Suspected of causing cancer. |
| H361d (Unborn child) | Suspected of damaging the unborn child. |
| H373 (hearing organs) | May cause damage to organs through prolonged or repeated exposure. (hearing organs) |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| H411 | Toxic to aquatic life with long lasting effects. |
| H412 | Harmful to aquatic life with long lasting effects. |

**Full text of classifications [CLP/GHS]** :

| | |
|---|---|
| Acute Tox. 4, H302 | ACUTE TOXICITY (oral) - Category 4 |
| Acute Tox. 4, H312 | ACUTE TOXICITY (dermal) - Category 4 |
| Acute Tox. 4, H332 | ACUTE TOXICITY (inhalation) - Category 4 |
| Aquatic Acute 1, H400 | ACUTE AQUATIC HAZARD - Category 1 |
| Aquatic Chronic 1, H410 | LONG-TERM AQUATIC HAZARD - Category 1 |
| Aquatic Chronic 2, H411 | LONG-TERM AQUATIC HAZARD - Category 2 |
| Aquatic Chronic 3, H412 | LONG-TERM AQUATIC HAZARD - Category 3 |
| Asp. Tox. 1, H304 | ASPIRATION HAZARD - Category 1 |
| Carc. 2, H351 | CARCINOGENICITY - Category 2 |
| EUH066 | Repeated exposure may cause skin dryness or cracking. |
| Eye Irrit. 2, H319 | SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2 |
| Flam. Liq. 2, H225 | FLAMMABLE LIQUIDS - Category 2 |
| Flam. Liq. 3, H226 | FLAMMABLE LIQUIDS - Category 3 |
| Repr. 2, H361d (Unborn child) | TOXIC TO REPRODUCTION (Unborn child) - Category 2 |
| Skin Irrit. 2, H315 | SKIN CORROSION/IRRITATION - Category 2 |
| STOT RE 2, H373 (hearing organs) | SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (hearing organs) - Category 2 |
| STOT RE 2, H373 | SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 |
| STOT SE 3, H336 | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 |

**Full text of abbreviated R phrases** :

R11- Highly flammable.
R10- Flammable.
R40- Limited evidence of a carcinogenic effect.
R63- Possible risk of harm to the unborn child.
R20- Harmful by inhalation.
R22- Harmful if swallowed.
R20/21- Harmful by inhalation and in contact with skin.
R48/20- Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R65- Harmful: may cause lung damage if swallowed.
R38- Irritating to skin.
R66- Repeated exposure may cause skin dryness or cracking.
R67- Vapours may cause drowsiness and dizziness.
R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the

## SECTION 16: Other information

aquatic environment.
R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Full text of classifications [DSD/DPD]** : F - Highly flammable
Carc. Cat. 3 - Carcinogen category 3
Repr. Cat. 3 - Toxic to reproduction category 3
Xn - Harmful
Xi - Irritant
N - Dangerous for the environment

**Date of printing** : 16.06.2017

**Date of issue/ Date of revision** : 16.06.2017

**Date of previous issue** : No previous validation

**Version** : 2

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