

# SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2015/830 - Germany

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

### 1.1 Product identifier

**Product name** : TP 287/65-NT-NEU  
**Product code** : 2000083B  
**Trade name** : TP 287/65-NT-NEU  
 Schwarz/Black  
**Date of issue/ Date of revision** : 7 November 2016  
**Version** : 3.04

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

| Identified uses  |        |
|--|--------|
| Colorant; Printing ink related material; Printing ink. |        |
| Uses advised against                                   | Reason |
| Not applicable.  |        |

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

**Manufacturer/ Distributor** : SUN CHEMICAL  
 NORTON HILL  
 MIDSOMER NORTON  
 BATH  
 SOMERSET  
 BA3 4RT  
 UNITED KINGDOM  
 (44) 1689 894000  
 COATES SCREEN INKS GMBH  
 WIEDERHOLDPLATZ 1  
 D-90451 NURNBERG  
 GERMANY  
 (49) 911 6422 0

**e-mail address of person responsible for this SDS** : regulatory.affairs@sunchemical.com

### 1.4 Emergency telephone number

#### Supplier

**Telephone number** : 0800-181-7059 (Chemtrec - 24 hours)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

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

Flam. Liq. 3, H226

Eye Irrit. 2, H319

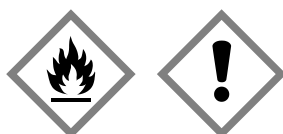
Aquatic Chronic 3, H412

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** : Warning

**Hazard statements** : Flammable liquid and vapor.  
Causes serious eye irritation.  
Harmful to aquatic life with long lasting effects.

**Precautionary statements**

**Prevention** : Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid release to the environment.

**Response** : In case of fire: Use water spray, dry chemical powder or carbon dioxide for extinction. IF IN EYES: Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes.

**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** : Contains (R)-p-mentha-1,8-diene. May produce an allergic reaction.

### 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<br>Regulation (EC) No.<br>1272/2008 [CLP] | Type       |
|---------------------------------|--|---------|--|------------|
| 2-methoxy-1-methylethyl acetate | REACH #: 01-2119475791-29<br>EC: 203-603-9<br>CAS: 108-65-6<br>Index: 607-195-00-7 | 10 < 20 | Flam. Liq. 3, H226                                       | [2]        |
| cyclohexanone                   | REACH #: 01-2119453616-35<br>EC: 203-631-1<br>CAS: 108-94-1<br>Index: 606-010-00-7 | 10 < 20 | Flam. Liq. 3, H226<br>Acute Tox. 4, H332                 | [1]<br>[2] |

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

|   |  |            |   |            |
|---|--|------------|---|------------|
| 2-butoxyethyl acetate   | REACH #: 01-2119475112-47<br>EC: 203-933-3<br>CAS: 112-07-2<br>Index: 607-038-00-2 | 10 < 20    | Acute Tox. 4, H302<br>Acute Tox. 4, H312<br>Acute Tox. 4, H332  | [1]<br>[2] |
| 4-hydroxy-4-methylpentan-2-one  | REACH #: 01-2119473975-21<br>EC: 204-626-7<br>CAS: 123-42-2                        | 10 < 20    | Flam. Liq. 3, H226<br>Eye Irrit. 2, H319<br>STOT SE 3, H335   | [1]<br>[2] |
| Hydrocarbons, C10, aromatics, <1% naphthalene                           | REACH #: 01-2119463583-34  | 5 < 10     | STOT SE 3, H336<br>Asp. Tox. 1, H304<br>Aquatic Chronic 2, H411<br>EUH066   | [1]        |
| n-butyl acetate   | REACH #: 01-2119485493-29<br>EC: 204-658-1<br>CAS: 123-86-4<br>Index: 607-025-00-1 | 1.0 < 2.5  | Flam. Liq. 3, H226<br>STOT SE 3, H336<br>EUH066   | [1]<br>[2] |
| Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%) | REACH #: 01-2119458049-33<br>CAS: 1174921-79-9                                     | 0.25 < 1.0 | Flam. Liq. 3, H226<br>STOT SE 3, H336<br>Asp. Tox. 1, H304<br>Aquatic Chronic 2, H411<br>EUH066   | [1]        |
| (R)-p-mentha-1,8-diene  | EC: 227-813-5<br>CAS: 5989-27-5<br>Index: 601-029-00-7                             | 0.1 < 0.25 | Flam. Liq. 3, H226<br>Skin Irrit. 2, H315<br>Skin Sens. 1, H317<br>Aquatic Acute 1, H400 (M=1)<br>Aquatic Chronic 1, H410 (M=1)                             | [1]<br>[2] |
| Amines, N-tallow alkyltrimethylenedi-, oleates                          | EC: 263-186-4<br>CAS: 61791-53-5   | 0.0015     | Skin Irrit. 2, H315<br>Eye Dam. 1, H318<br>Aquatic Acute 1, H400 (M=100)<br><br><b>See Section 16 for the full text of the H statements declared above.</b> | [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 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

|                                   |   |
|-----------------------------------|---|
| <b>General</b>                    | : 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.   |
| <b>Eye contact</b>                | : Check for and remove any contact lenses. Immediately flush eyes with room temperature water for at least 15 minutes, keeping eyelids open. In case of accidental eye contact, avoid concurrent exposure to the sun or other sources of UV light which may increase the sensitivity of the eyes. |
| <b>Inhalation</b>                 | : 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.  |
| <b>Skin contact</b>               | : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.  |
| <b>Ingestion</b>                  | : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.   |
| <b>Protection of first-aiders</b> | : 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

There are no data available on the mixture itself. Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]. See Sections 2 and 3 for details.

Exposure to component solvent vapor 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.

Contains (R)-p-mentha-1,8-diene. May produce an allergic reaction.

### 4.3 Indication of any immediate medical attention and special treatment needed

|                                |   |
|--------------------------------|---|
| <b>Notes to medical doctor</b> | : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| <b>Specific treatments</b>     | : No specific treatment.  |

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

|                                       |  |
|---------------------------------------|--|
| <b>Suitable extinguishing media</b>   | : Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam. |
| <b>Unsuitable extinguishing media</b> | : Do not use water jet.  |

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

## SECTION 5: Firefighting measures

- Hazards from the substance or mixture** : Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

### 5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.
- Special protective equipment for fire-fighters** : Appropriate breathing apparatus may be required.

## SECTION 6: Accidental release measures

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

- For non-emergency personnel** : Exclude sources of ignition and ventilate the area. Avoid breathing vapor or mist. Refer to protective measures listed in sections 7 and 8.
- For emergency responders** : If specialized 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

- : Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

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

- : 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 (see Section 13). Preferably clean with a detergent. Avoid using solvents.

### 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

### 7.1 Precautions for safe handling

- : Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air. Prevent the creation of flammable or explosive concentrations of vapors in air and avoid vapor 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.
- To dissipate static electricity during transfer, ground drum and connect to receiving container with bonding strap. Operators should wear antistatic footwear and clothing and floors should be of the conducting type.
- Keep container tightly closed. 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. 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.

## SECTION 7: Handling and storage

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

: Store between the following temperatures: 5 - 35 °C

Store in accordance with local regulations.

#### Notes on joint storage

Keep away from: oxidizing 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 unauthorized 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   |
|---------------------------------|---|
| 2-methoxy-1-methylethyl acetate | <b>TRGS900 AGW (Germany, 3/2015).</b><br>PEAK: 270 mg/m <sup>3</sup> 15 minutes.<br>PEAK: 50 ppm 15 minutes.<br>TWA: 270 mg/m <sup>3</sup> 8 hours.<br>TWA: 50 ppm 8 hours.                                       |
| cyclohexanone                   | <b>TRGS900 AGW (Germany, 3/2015). Absorbed through skin.</b><br>PEAK: 80 mg/m <sup>3</sup> 15 minutes.<br>PEAK: 20 ppm 15 minutes.<br>TWA: 80 mg/m <sup>3</sup> 8 hours.<br>TWA: 20 ppm 8 hours.                  |
| 2-butoxyethyl acetate           | <b>TRGS900 AGW (Germany, 3/2015). Absorbed through skin.</b><br>PEAK: 520 mg/m <sup>3</sup> 15 minutes.<br>PEAK: 80 ppm 15 minutes.<br>TWA: 130 mg/m <sup>3</sup> 8 hours.<br>TWA: 20 ppm 8 hours.                |
| 4-hydroxy-4-methylpentan-2-one  | <b>TRGS900 AGW (Germany, 3/2015). Absorbed through skin.</b><br>PEAK: 192 mg/m <sup>3</sup> 15 minutes.<br>PEAK: 40 ppm 15 minutes.<br>TWA: 96 mg/m <sup>3</sup> 8 hours.<br>TWA: 20 ppm 8 hours.                 |
| n-butyl acetate                 | <b>TRGS900 AGW (Germany, 3/2015).</b><br>TWA: 300 mg/m <sup>3</sup> 8 hours.<br>TWA: 62 ppm 8 hours.<br>PEAK: 600 mg/m <sup>3</sup> 15 minutes.<br>PEAK: 124 ppm 15 minutes.                                      |
| (R)-p-mentha-1,8-diene          | <b>TRGS900 AGW (Germany, 3/2015). Absorbed through skin. Skin sensitizer.</b><br>PEAK: 20 ppm 15 minutes.<br>PEAK: 112 mg/m <sup>3</sup> 15 minutes.<br>TWA: 5 ppm 8 hours.<br>TWA: 28 mg/m <sup>3</sup> 8 hours. |

## SECTION 8: Exposure controls/personal protection

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

### DNELs/DMELs

| Product/ingredient name | Type | Exposure | Value | Population | Effects |
|-------------------------|------|----------|-------|------------|---------|
| No DELs available.      |      |          |       |            |         |

### PNECs

| Product/ingredient name | Type | Compartment Detail | Value | Method Detail |
|-------------------------|------|--------------------|-------|---------------|
| No PECs available.      |      |                    |       |               |

## 8.2 Exposure controls

**Appropriate engineering controls** : Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapors below the OEL, suitable respiratory protection must be worn.

### 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.
- Eye/face protection** : Use safety eyewear designed to protect against splash of liquids.
- Skin protection**
- Hand protection** : Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.
- Gloves** : 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** : Personnel should wear antistatic clothing made of natural fibers or of high-temperature-resistant synthetic fibers.
- Respiratory protection** : If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators.
- Environmental exposure controls** : Do not allow to enter drains or watercourses.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|   |  |
|---|--|
| <b>Physical state</b>                               | : Liquid.  |
| <b>Color</b>  | : Black.   |
| <b>Odor</b>   | : Characteristic.  |
| <b>Odor threshold</b>                               | : Not applicable.  |
| <b>Melting point/freezing point</b>                 | : Not applicable.  |
| <b>Flash point</b>                                  | : 40°C   |
| <b>VOC</b>  | : 65%  |
| <b>pH</b>   | : Not tested   |
| <b>Lower explosion limit</b>                        | : Lower: 1.5%<br>Upper: 9.4%   |
| <b>Boiling point</b>                                | : Lowest known value: 146°C (294°F)  |
| <b>Evaporation rate</b>                             | : Highest known value: 1 (n-butyl acetate) Weighted average: 0.2 compared with butyl acetate |
| <b>Upper/lower flammability or explosive limits</b> | : Not tested   |
| <b>Vapor pressure</b>                               | : Not tested   |
| <b>Vapor density</b>                                | : Not tested   |
| <b>Relative density</b>                             | : 1.075  |
| <b>Solubility(ies)</b>                              | : Not tested   |
| <b>Partition coefficient: n-octanol/ water</b>      | : Not applicable.  |
| <b>Auto-ignition temperature</b>                    | : Not applicable.  |
| <b>Decomposition temperature</b>                    | : Not applicable.  |
| <b>Viscosity</b>                                    | : Not tested   |
| <b>Explosive properties</b>                         | : Not applicable.  |
| <b>Oxidizing properties</b>                         | : Not applicable.  |

### 9.2 Other information

No additional information.

## SECTION 10: Stability and reactivity

|  |  |
|--|--|
| <b>10.1 Reactivity</b>                         | : No specific test data related to reactivity available for this product or its ingredients.                                     |
| <b>10.2 Chemical stability</b>                 | : Stable under recommended storage and handling conditions (see Section 7).  |
| <b>10.3 Possibility of hazardous reactions</b> | : Under normal conditions of storage and use, hazardous reactions will not occur.  |
| <b>10.4 Conditions to avoid</b>                | : When exposed to high temperatures may produce hazardous decomposition products.  |
| <b>10.5 Incompatible materials</b>             | : Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids. |



## SECTION 10: Stability and reactivity

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

## SECTION 11: Toxicological information

There are no data available on the mixture itself. Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]. See Sections 2 and 3 for details.

Exposure to component solvent vapor 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.

Contains (R)-p-mentha-1,8-diene. May produce an allergic reaction.

### 11.1 Information on toxicological effects

#### Acute toxicity

| Product/ingredient name         | Result               | Species | Dose         | Exposure |
|---------------------------------|----------------------|---------|--------------|----------|
| 2-methoxy-1-methylethyl acetate | LD50 Dermal          | Rabbit  | >5 g/kg      | -        |
| cyclohexanone                   | LD50 Oral            | Rat     | 8532 mg/kg   | -        |
|                                 | LC50 Inhalation Gas. | Rat     | 8000 ppm     | 4 hours  |
| 2-butoxyethyl acetate           | LD50 Oral            | Rat     | 1800 mg/kg   | -        |
|                                 | LD50 Dermal          | Rabbit  | 1500 mg/kg   | -        |
| 4-hydroxy-4-methylpentan-2-one  | LD50 Oral            | Rat     | 2400 mg/kg   | -        |
|                                 | LD50 Dermal          | Rabbit  | 13500 mg/kg  | -        |
| n-butyl acetate                 | LD50 Oral            | Rat     | 2520 mg/kg   | -        |
|                                 | LD50 Dermal          | Rabbit  | >17600 mg/kg | -        |
| (R)-p-mentha-1,8-diene          | LD50 Oral            | Rat     | 10768 mg/kg  | -        |
|                                 | LD50 Dermal          | Rabbit  | >5 g/kg      | -        |
|                                 | LD50 Oral            | Rat     | 4400 mg/kg   | -        |

#### Irritation/Corrosion

Not determined - Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

#### Sensitization

Not determined - Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

#### Mutagenicity

Not applicable.

#### Carcinogenicity

Not applicable.

#### Reproductive toxicity

Not determined - Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

#### Teratogenicity

Not applicable.

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

**SECTION 11: Toxicological information**

| Product/ingredient name   | Category   | Route of exposure | Target organs                |
|---|------------|-------------------|------------------------------|
| 4-hydroxy-4-methylpentan-2-one  | Category 3 | Not applicable.   | Respiratory tract irritation |
| Hydrocarbons, C10, aromatics, <1% naphthalene                           | Category 3 | Not applicable.   | Narcotic effects             |
| n-butyl acetate   | Category 3 | Not applicable.   | Narcotic effects             |
| Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%) | Category 3 | Not applicable.   | Narcotic effects             |

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

Not determined - Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

**Aspiration hazard**

| Product/ingredient name   | Result                         |
|---|--------------------------------|
| Hydrocarbons, C10, aromatics, <1% naphthalene                           | ASPIRATION HAZARD - Category 1 |
| Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%) | ASPIRATION HAZARD - Category 1 |

**SECTION 12: Ecological information**

There are no data available on the mixture itself.

Do not allow to enter drains or watercourses.

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]. See Sections 2 and 3 for details.

**12.1 Toxicity**

|                                |                                     |   |          |
|--------------------------------|-------------------------------------|---|----------|
| cyclohexanone                  | Acute LC50 630000 µg/l Fresh water  | Fish - Pimephales promelas - 0.12 g           | 96 hours |
| 4-hydroxy-4-methylpentan-2-one | Acute LC50 420000 µg/l Marine water | Fish - Menidia beryllina - 40 to 100 mm       | 96 hours |
| n-butyl acetate                | Acute LC50 32000 µg/l Marine water  | Crustaceans - Artemia salina - Nauplii        | 48 hours |
| (R)-p-mentha-1,8-diene         | Acute LC50 62000 µg/l               | Fish - Danio rerio                            | 96 hours |
|                                | Acute EC50 69600 µg/l Fresh water   | Daphnia - Daphnia pulex - Neonate - <24 hours | 48 hours |
|                                | Acute LC50 35000 µg/l Fresh water   | Fish - Oncorhynchus mykiss                    | 4 days   |

**12.2 Persistence and degradability**

Not available.

**12.3 Bioaccumulative potential**

| Product/ingredient name         | LogP <sub>ow</sub> | BCF | Potential |
|---------------------------------|--------------------|-----|-----------|
| 2-methoxy-1-methylethyl acetate | 1.2                | -   | low       |
| cyclohexanone                   | 0.86               | -   | low       |
| 2-butoxyethyl acetate           | 1.51               | -   | low       |
| 4-hydroxy-4-methylpentan-2-one  | -0.14 to 1.03      | -   | low       |
| n-butyl acetate                 | 2.3                | -   | low       |
| (R)-p-mentha-1,8-diene          | 4.38               | -   | high      |

## SECTION 12: Ecological information

### 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

Do not allow to enter drains or watercourses.

Dispose of according to all federal, state and local applicable regulations.

If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned.

For further information, contact your local waste authority.

### 13.1 Waste treatment methods

#### Product

**Methods of disposal** : The generation of waste should be avoided or minimized 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.

#### Packaging

**Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**European Waste Catalogue (EWC):** : 08 03 12 waste ink containing hazardous substances

**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. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.





## SECTION 14: Transport information

|                              | ADR/RID      | ADN          | IMDG         | IATA         |
|------------------------------|--------------|--------------|--------------|--------------|
| 14.1 UN number               | UN1210       | UN1210       | UN1210       | UN1210       |
| 14.2 UN proper shipping name | PRINTING INK | PRINTING INK | PRINTING INK | PRINTING INK |
|                              |              |              |              |              |

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**SECTION 14: Transport information**

|  |  |   |   |  |
|--|--|---|---|--|
| <b>14.3 Transport hazard class(es)</b> | 3<br> | 3<br>                    | 3<br> | 3<br> |
| <b>14.4 Packing group</b>              | III  | III   | III   | III  |
| <b>14.5 Environmental hazards</b>      | No.  | No.   | No.   | No.  |
| <b>Additional information</b>          | <b>Special provisions</b><br>640 (E)<br><b>Tunnel code</b><br>(D/E)                    | The product is only regulated as an environmentally hazardous substance 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 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 authorization**

**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****National regulations**

**Industrial use** : 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. The provisions of the national health and safety at work regulations apply to the use of this product at work.

**Storage code** : 3

**Hazardous incident ordinance** : Applicable. Category: 6 Flammable.

**Hazard class for water** : 2 Appendix No. 4

## SECTION 15: Regulatory information

### 15.2 Chemical Safety Assessment

This product contains substances for which Chemical Safety Assessments are still to be received.

## SECTION 16: Other information

CEPE code : 1

☑ 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

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

| Classification  | Justification   |
|---|---|
| Flam. Liq. 3, H226<br>Eye Irrit. 2, H319<br>Aquatic Chronic 3, H412 | On basis of test data<br>Calculation method<br>Calculation method |

**Full text of abbreviated H statements** : H226 Flammable liquid and vapor.  
 H302 Harmful if swallowed.  
 H304 May be fatal if swallowed and enters airways.  
 H312 Harmful in contact with skin.  
 H315 Causes skin irritation.  
 H317 May cause an allergic skin reaction.  
 H318 Causes serious eye damage.  
 H319 Causes serious eye irritation.  
 H332 Harmful if inhaled.  
 H335 May cause respiratory irritation.  
 H336 May cause drowsiness or dizziness.  
 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 AQUATIC HAZARD (ACUTE) - Category 1  
 Aquatic Chronic 1, H410 AQUATIC HAZARD (LONG-TERM) - Category 1  
 Aquatic Chronic 2, H411 AQUATIC HAZARD (LONG-TERM) - Category 2  
 Aquatic Chronic 3, H412 AQUATIC HAZARD (LONG-TERM) - Category 3  
 Asp. Tox. 1, H304 ASPIRATION HAZARD - Category 1  
 EUH066 Repeated exposure may cause skin dryness or cracking.  
 Eye Dam. 1, H318 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1  
 Eye Irrit. 2, H319 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2  
 Flam. Liq. 3, H226 FLAMMABLE LIQUIDS - Category 3  
 Skin Irrit. 2, H315 SKIN CORROSION/IRRITATION - Category 2  
 Skin Sens. 1, H317 SKIN SENSITIZATION - Category 1  
 STOT SE 3, H335 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3  
 STOT SE 3, H336 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

**SECTION 16: Other information**

**Full text of abbreviated R phrases** : R10- Flammable.  
R20- Harmful by inhalation.  
R20/21/22- Harmful by inhalation, in contact with skin and if swallowed.  
R21/22- Harmful in contact with skin and if swallowed.  
R65- Harmful: may cause lung damage if swallowed.  
R41- Risk of serious damage to eyes.  
R36- Irritating to eyes.  
R38- Irritating to skin.  
R43- May cause sensitization by skin contact.  
R66- Repeated exposure may cause skin dryness or cracking.  
R67- Vapors may cause drowsiness and dizziness.  
R50- Very toxic to aquatic organisms.  
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 aquatic environment.  
R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Full text of classifications [DSD/DPD]** : Xn - Harmful  
Xi - Irritant  
N - Dangerous for the environment

**Date of printing** : 24 November 2016

**Date of previous issue** : 4 October 2016

**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 fulfill 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.

**Annex**