
SAFETY DATA SHEET

Orcein 1 percent

Section 1. Identification

1.1 Product identifier
Product name : Orcein 1 percent
Part no. : AR313
Validation date : 6/3/2020

1.2 Relevant identified uses of the substance or mixture and uses advised against
Material uses : Laboratory use
Container type: Dispenser Pack
AR313 // Orcein 1% // Artisan Orcein Stain Kit // 65 mL
Reference number: SDS296

1.3 Details of the supplier of the safety data sheet
Supplier/Manufacturer : Agilent Technologies, Inc.
5301 Stevens Creek Blvd
Santa Clara, CA 95051, USA
Tel: +1 800 227 9770

Agilent Technologies Singapore (International) Pte Ltd.
No. 1 Yishun Avenue 7
Singapore, 768923
Tel. (65) 6276 2622

Agilent Technologies Denmark ApS
Produktionsvej 42
2600 Glostrup,
Denmark
Tel. +45 44 85 95 00

www.Agilent.com

e-mail address of person responsible for this SDS : SDS@Agilent.com

1.4 Emergency telephone number
In case of emergency : CHEMTREC®: 1-800-424-9300

Section 2. Hazards identification

2.1 Classification of the substance or mixture
OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture
H225 FLAMMABLE LIQUIDS - Category 2
H302 ACUTE TOXICITY (oral) - Category 4
H315 SKIN IRRITATION - Category 2
H319 EYE IRRITATION - Category 2A
H360 TOXIC TO REPRODUCTION - Category 1B
H371 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 2
H335 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

Date of issue : 06/03/2020
Section 2. Hazards identification

H336  SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

H373  SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 1%

2.2 GHS label elements

Signal word  : Danger

Hazard statements  :
H225 - Highly flammable liquid and vapor.
H302 - Harmful if swallowed.
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H335 - May cause respiratory irritation.
H336 - May cause drowsiness or dizziness.
H360 - May damage fertility or the unborn child.
H371 - May cause damage to organs. (central nervous system (CNS), optic nerve)
H373 - May cause damage to organs through prolonged or repeated exposure. (liver)

Precautionary statements

Prevention  :
P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P233 - Keep container tightly closed.
P271 - Use only outdoors or in a well-ventilated area.
P260 - Do not breathe vapor.
P270 - Do not eat, drink or smoke when using this product.
P264 - Wash hands thoroughly after handling.

Response  :
P314 - Get medical attention if you feel unwell.
P308 + P311 - IF exposed or concerned: Call a POISON CENTER or physician.
P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.
P301 + P312 + P330 - IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth.
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P302 + P352 + P362 + P364 - IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse.
P332 + P313 - If skin irritation occurs: Get medical attention.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 - If eye irritation persists: Get medical attention.

Storage  :
P405 - Store locked up.
P403 - Store in a well-ventilated place.
P235 - Keep cool.

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

Date of issue: 06/03/2020
Section 2. Hazards identification

2.3 Other hazards
Hazards not otherwise classified: None known.

Section 3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ethanol</td>
<td>≥50 - ≤75</td>
<td>64-17-5</td>
</tr>
<tr>
<td></td>
<td>Propan-2-ol</td>
<td>≤10</td>
<td>67-63-0</td>
</tr>
<tr>
<td></td>
<td>Methanol</td>
<td>&lt;6</td>
<td>67-56-1</td>
</tr>
<tr>
<td></td>
<td>Orcein</td>
<td>≤3</td>
<td>1400-62-0</td>
</tr>
<tr>
<td></td>
<td>Hydrochloric acid</td>
<td>≤1.9</td>
<td>7647-01-0</td>
</tr>
</tbody>
</table>

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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 and hence require reporting in this section.

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

Section 4. First aid measures

4.1 Description of necessary 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 necessary, call a poison center or physician.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

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. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects
Section 4. First aid measures

**Eye contact**: Causes serious eye irritation.

**Inhalation**: May cause damage to organs following a single exposure if inhaled. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

**Skin contact**: May cause damage to organs following a single exposure in contact with skin. Causes skin irritation.

**Ingestion**: Harmful if swallowed. May cause damage to organs following a single exposure if swallowed. Can cause central nervous system (CNS) depression.

**Over-exposure signs/symptoms**

**Eye contact**: Adverse symptoms may include the following:
- pain or irritation
- watering
- redness

**Inhalation**: Adverse symptoms may include the following:
- respiratory tract irritation
- coughing
- nausea or vomiting
- headache
- drowsiness/fatigue
- dizziness/vertigo
- unconsciousness
- reduced fetal weight
- increase in fetal deaths
- skeletal malformations

**Skin contact**: Adverse symptoms may include the following:
- irritation
- redness
- reduced fetal weight
- increase in fetal deaths
- skeletal malformations

**Ingestion**: Adverse symptoms may include the following:
- reduced fetal weight
- increase in fetal deaths
- skeletal malformations

**4.3 Indication of immediate medical attention and special treatment needed, if necessary**

**Notes to physician**: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Specific treatments**: No specific treatment.

**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.

**See toxicological information (Section 11)**
Section 5. Fire-fighting measures

5.1 Extinguishing media

<table>
<thead>
<tr>
<th>Suitable extinguishing media</th>
<th>Use dry chemical, CO₂, water spray (fog) or foam.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsuitable extinguishing media</td>
<td>Do not use water jet.</td>
</tr>
</tbody>
</table>

5.2 Special hazards arising from the substance or mixture

| Specific hazards arising from the chemical | Highly flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. |
| Hazardous thermal decomposition products | Decomposition products may include the following materials: carbon dioxide, carbon monoxide, nitrogen oxides, halogenated compounds, formaldehyde. |

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. |

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 spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. |
| 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

| | Avoid dispersal of spilled 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 materials for containment and cleaning up

| Methods for cleaning up | 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. |

Date of issue: 06/03/2020
Section 7. Handling and storage

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 breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities: Specific storage conditions: Please consult the label. Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled 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: Industrial applications, Professional applications.

Industrial sector specific solutions: Not applicable.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
</table>
| Ethanol         | ACGIH TLV (United States, 3/2019).  
|                 | STEL: 1000 ppm 15 minutes.  
|                 | TWA: 1000 ppm 8 hours.  
|                 | TWA: 1900 mg/m³ 8 hours.  
|                 | NIOSH REL (United States, 10/2016).  
|                 | TWA: 1000 ppm 10 hours.  
|                 | TWA: 1900 mg/m³ 10 hours.  
|                 | OSHA PEL (United States, 5/2018).  
|                 | TWA: 1000 ppm 8 hours.  
|                 | TWA: 1900 mg/m³ 8 hours.  
|                 | ACGIH TLV (United States, 3/2019).  
|                 | TWA: 200 ppm 8 hours.  
|                 | STEL: 400 ppm 15 minutes.  
|                 | TWA: 400 ppm 8 hours.  

Date of issue: 06/03/2020
Section 8. Exposure controls/personal protection

**Orcein 1 percent**

- **TWA:** 980 mg/m³ 8 hours.
- **STEL:** 500 ppm 15 minutes.
- **STEL:** 1225 mg/m³ 15 minutes.

**NIOSH REL (United States, 10/2016).**
- **TWA:** 400 ppm 10 hours.
- **TWA:** 980 mg/m³ 10 hours.
- **STEL:** 500 ppm 15 minutes.
- **STEL:** 1225 mg/m³ 15 minutes.

**OSHA PEL (United States, 5/2018).**
- **TWA:** 400 ppm 8 hours.
- **TWA:** 980 mg/m³ 8 hours.

**Methanol**

- **TWA:** 200 ppm 8 hours.
- **TWA:** 262 mg/m³ 8 hours.
- **STEL:** 250 ppm 15 minutes.
- **STEL:** 328 mg/m³ 15 minutes.

**ACGIH TLV (United States, 3/2019).** Absorbed through skin.
- **TWA:** 200 ppm 8 hours.
- **TWA:** 260 mg/m³ 8 hours.
- **STEL:** 250 ppm 15 minutes.
- **STEL:** 325 mg/m³ 15 minutes.

- **TWA:** 200 ppm 8 hours.
- **TWA:** 260 mg/m³ 8 hours.
- **STEL:** 250 ppm 15 minutes.
- **STEL:** 325 mg/m³ 15 minutes.

**NIOSH REL (United States, 10/2016).** Absorbed through skin.
- **TWA:** 200 ppm 10 hours.
- **TWA:** 260 mg/m³ 10 hours.
- **STEL:** 250 ppm 15 minutes.
- **STEL:** 325 mg/m³ 15 minutes.

**OSHA PEL (United States, 5/2018).**
- **TWA:** 200 ppm 8 hours.
- **TWA:** 260 mg/m³ 8 hours.

**None.**

**ACGIH TLV (United States, 3/2019).**
- **C:** 2 ppm

**OSHA PEL 1989 (United States, 3/1989).**
- **CEIL:** 5 ppm
- **CEIL:** 7 mg/m³

**NIOSH REL (United States, 10/2016).**
- **CEIL:** 5 ppm
- **CEIL:** 7 mg/m³

**OSHA PEL (United States, 5/2018).**
- **CEIL:** 5 ppm
- **CEIL:** 7 mg/m³

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, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

- **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.

Date of issue: 06/03/2020
**Section 8. Exposure controls/personal protection**

**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: chemical splash goggles.

**Skin protection**

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

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

**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.

**Section 9. Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

**Appearance**

**Physical state**: Liquid.

**Color**: Red. [Dark]

**Odor**: Alcohol-like.

**Odor threshold**: Not available.

**pH**: Not available.

**Melting point**: Not available.

**Boiling point**: Not available.

**Flash point**: Closed cup: 21°C (69.8°F)

**Evaporation rate**: Not available.

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

**Lower and upper explosive (flammable) limits**: Not available.

**Vapor pressure**: Not available.

**Vapor density**: Not available.

**Relative density**: <1 [at 20°C]

**Density**: <1 g/cm³ [20°C (68°F)]

**Date of issue**: 06/03/2020
Section 9. Physical and chemical properties

Solubility: Soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water: Not available.
Auto-ignition temperature: Not available.
Decomposition temperature: Not available.
Viscosity: Not available.

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 pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

10.5 Incompatible materials: Reactive or incompatible with the following materials:
oxidizing materials

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

Section 11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>LC50 Inhalation Vapor</td>
<td>Rat</td>
<td>124700 mg/m³</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>7 g/kg</td>
<td>-</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>LC50 Oral</td>
<td>Rabbit</td>
<td>5000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>12800 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Methanol</td>
<td>LC50 Inhalation Vapor</td>
<td>Rat</td>
<td>145000 ppm</td>
<td>1 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rabbit</td>
<td>64000 ppm</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>15800 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Irritation/Corrosion

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 mg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>0.0666666667 minutes 100 mg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>100 Ul</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>400 mg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 20 mg</td>
<td>-</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 100 mg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>10 mg</td>
<td>-</td>
</tr>
</tbody>
</table>

Date of issue: 06/03/2020
# Section 11. Toxicological information

**Methanol**

<table>
<thead>
<tr>
<th>Route of exposure</th>
<th>Target organs</th>
<th>Category</th>
<th>Route of exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eyes - Mild irritant</td>
<td>Respiratory tract irritation</td>
<td>-</td>
<td>Category 3</td>
</tr>
<tr>
<td>Rabbit</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Eyes - Moderate irritant</td>
<td>Narcotic effects</td>
<td>-</td>
<td>Category 3</td>
</tr>
<tr>
<td>Rabbit</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Skin - Moderate irritant</td>
<td>central nervous system (CNS), optic nerve</td>
<td>-</td>
<td>Category 1</td>
</tr>
<tr>
<td>Rabbit</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

**Conclusion/Summary**

- **Skin**
  - Repeated exposure may cause skin dryness or cracking.

- **Sensitization**
  - Not available.

- **Mutagenicity**
  - Conclusion/Summary
    - Not available.

- **Carcinogenicity**
  - Conclusion/Summary
    - Not available.

## Classification

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>OSHA</th>
<th>IARC</th>
<th>NTP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>-</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>Hydrochloric acid</td>
<td>-</td>
<td>3</td>
<td>-</td>
</tr>
</tbody>
</table>

**Reproductive toxicity**

- **Conclusion/Summary**
  - Not available.

**Teratogenicity**

- **Conclusion/Summary**
  - Not available.

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

- **Ethanol**
  - Category 3
  - Route of exposure
  - Target organs
    - Respiratory tract irritation
    - Narcotic effects

- **Propan-2-ol**
  - Category 3
  - Route of exposure
  - Target organs
    - Narcotic effects
    - central nervous system (CNS), optic nerve

- **Methanol**
  - Category 1
  - Route of exposure
  - Target organs
    - Respiratory tract irritation
    - Narcotic effects

- **Hydrochloric acid**
  - Category 3
  - Route of exposure
  - Target organs
    - Respiratory tract irritation

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

- **Propan-2-ol**
  - Category 2
  - Route of exposure
  - Target organs
    - liver

**Aspiration hazard**

- Not available.

**Information on the likely routes of exposure**

- Routes of entry anticipated: Oral, Dermal, Inhalation.

**Potential acute health effects**

**Date of issue:** 06/03/2020
Section 11. Toxicological information

Eye contact: Causes serious eye irritation.

Inhalation: May cause damage to organs following a single exposure if inhaled. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

Skin contact: May cause damage to organs following a single exposure in contact with skin. Causes skin irritation.

Ingestion: Harmful if swallowed. May cause damage to organs following a single exposure if swallowed. Can cause central nervous system (CNS) depression.

Symptoms related to the physical, chemical and toxicological characteristics

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

Inhalation: Adverse symptoms may include the following:
- respiratory tract irritation
- coughing
- nausea or vomiting
- headache
- drowsiness/fatigue
- dizziness/vertigo
- unconsciousness
- reduced fetal weight
- increase in fetal deaths
- skeletal malformations

Skin contact: Adverse symptoms may include the following:
- irritation
- redness
- reduced fetal weight
- increase in fetal deaths
- skeletal malformations

Ingestion: Adverse symptoms may include the following:
- reduced fetal weight
- increase in fetal deaths
- skeletal malformations

Potential chronic health effects

General: May cause damage to organs through prolonged or repeated exposure.

Carcinogenicity: No known significant effects or critical hazards.

Mutagenicity: No known significant effects or critical hazards.

Teratogenicity: May damage the unborn child.

Developmental effects: No known significant effects or critical hazards.

Fertility effects: No known significant effects or critical hazards.
Section 11. Toxicological information

Numerical measures of toxicity

<table>
<thead>
<tr>
<th>Acute toxicity estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product/ingredient name</td>
</tr>
<tr>
<td>--------------------------</td>
</tr>
<tr>
<td>Orcein 1 percent</td>
</tr>
<tr>
<td>Ethanol</td>
</tr>
<tr>
<td>Propan-2-ol</td>
</tr>
<tr>
<td>Methanol</td>
</tr>
<tr>
<td>Orcein</td>
</tr>
<tr>
<td>Hydrochloric acid</td>
</tr>
</tbody>
</table>

Other information: Adverse symptoms may include the following: blurred or double vision, eye contact can result in corneal damage or blindness. Repeated or prolonged exposure to the substance can produce liver damage.

Section 12. Ecological information

12.1 Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>Acute EC50 17.921 mg/l Marine water</td>
<td>Algae - Ulva pertusa</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 2000 µg/l Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 25500 µg/l Marine water</td>
<td>Crustaceans - Artemia</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 42000 µg/l Fresh water</td>
<td>franciscana - Larvae</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 4.995 mg/l Marine water</td>
<td>Fish - Oncorhynchus mykiss</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 100 ul/L Fresh water</td>
<td>Algae - Ulva pertusa</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 0.375 ul/l Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Neonate</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fish - Gambusia holbrooki</td>
<td>12 weeks</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Larvae</td>
<td></td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>Acute EC50 7550 mg/l Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Neonate</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Crustaceans - Crangon crangon</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fish - Rasbora heteromorpha</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Crustaceans - Crangon crangon</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adult</td>
<td></td>
</tr>
<tr>
<td>Methanol</td>
<td>Acute LC50 1400000 µg/l Marine water</td>
<td>Algae - Ulva pertusa</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acute LC50 42000 µg/l Fresh water</td>
<td>Crustaceans - Crangon crangon</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acute LC50 2500000 µg/l Marine water</td>
<td>Adult</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acute LC50 3289 mg/l Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Neonate</td>
<td></td>
</tr>
<tr>
<td>Hydrochloric acid</td>
<td>Acute LC50 290 mg/l Fresh water</td>
<td>Fish - Danio rerio - Egg</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 9.96 mg/l Marine water</td>
<td>Algae - Ulva pertusa</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 2400000 µg/l Marine water</td>
<td>Crustaceans - Carcinus maenas</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 282 ppm Fresh water</td>
<td>Fish - Gambusia affinis - Adult</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Aquatic half-life</th>
<th>Photoysis</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>-</td>
<td>-</td>
<td>Readily</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>-</td>
<td>-</td>
<td>Readily</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential

Date of issue: 06/03/2020
Section 12. Ecological information

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP_{ow}</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>-0.35</td>
<td>0.5</td>
<td>low</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>0.05</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>Methanol</td>
<td>-0.77</td>
<td>&lt;10</td>
<td>low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil

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

12.5 Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

13.1 Waste treatment methods

Disposal methods : 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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. 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.

United States - RCRA Toxic hazardous waste "U" List

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS #</th>
<th>Status</th>
<th>Reference number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol (I); Methyl alcohol (I)</td>
<td>67-56-1</td>
<td>Listed</td>
<td>U154</td>
</tr>
</tbody>
</table>

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

Section 14. Transport information

Date of issue : 06/03/2020
# Section 14. Transport information

<table>
<thead>
<tr>
<th>DOT Classification</th>
<th>TDG Classification</th>
<th>Mexico Classification</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UN number</strong></td>
<td>UN1987</td>
<td>UN1987</td>
<td>UN1987</td>
<td>UN1987</td>
</tr>
<tr>
<td><strong>UN proper shipping name</strong></td>
<td>Alcohols, n.o.s. (Ethanol, Propan-2-ol, Methanol)</td>
<td>ALCOHOLS, N.O.S. (Ethanol, Propan-2-ol, Methanol)</td>
<td>ALCOHOLE, N.E.P. (Ethanol, Propan-2-ol, Methanol)</td>
<td>Alcohols, n.o.s. (Ethanol, Propan-2-ol, Methanol)</td>
</tr>
<tr>
<td><strong>Transport hazard class(es)</strong></td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Packing group</strong></td>
<td>II</td>
<td>II</td>
<td>II</td>
<td>II</td>
</tr>
<tr>
<td><strong>Environmental hazards</strong></td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
</tr>
</tbody>
</table>

**Additional information**

If shipped as part of a kit "UN3316 (Chemical kit), Class 9, PG II" can be used. Precondition: UN3316 must be allowed for the remaining vials in same kit too.

**DOT Classification**
- **Limited quantity**: Yes.
- **Quantity limitation**: Passenger aircraft/rail: 5 L. Cargo aircraft: 60 L.
- **Special provisions**: 172, IB2, T7, TP1, TP8, TP28

**TDG Classification**
- Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3).
- **Explosive Limit and Limited Quantity Index**: 1
- **Passenger Carrying Road or Rail Index**: 5
- **Special provisions**: 16, 150

**Mexico Classification**
- **Special provisions**: 274

**IMDG**
- **Emergency schedules**: F-E, S-D
- **Special provisions**: 274

**IATA**
- **Quantity limitation**: Passenger and Cargo Aircraft: 5 L. Packaging instructions: 353.
- **Special provisions**: A3, A180

**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.

**Transport in bulk according to IMO instruments**
- Not available.

Date of issue: 06/03/2020
### Section 15. Regulatory information

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

**U.S. Federal regulations**

- **Clean Water Act (CWA) 311:** Hydrochloric acid

- **Clean Air Act (CAA) 112 regulated toxic substances:** Hydrochloric acid

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)**

- Listed

**Clean Air Act Section 602 Class I Substances**

- Not listed

**Clean Air Act Section 602 Class II Substances**

- Not listed

**DEA List I Chemicals (Precursor Chemicals)**

- Not listed

**DEA List II Chemicals (Essential Chemicals)**

- Listed

**SARA 302/304**

#### Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>EHS</th>
<th>SARA 302 TPQ</th>
<th>SARA 304 RQ</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>(lbs)</td>
<td>(gallons)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(lbs)</td>
<td>(gallons)</td>
</tr>
<tr>
<td>Hydrochloric acid</td>
<td>≤1.9</td>
<td>Yes.</td>
<td>500</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5000</td>
<td>-</td>
</tr>
</tbody>
</table>

**SARA 304 RQ**

- 500000 lbs / 227000 kg [66630.1 gal / 252222.2 L]

**SARA 311/312**

**Classification**

- FLAMMABLE LIQUIDS - Category 2
- ACUTE TOXICITY (oral) - Category 4
- SKIN IRRITATION - Category 2
- EYE IRRITATION - Category 2A
- TOXIC TO REPRODUCTION - Category 1B
- SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 2
- SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
- SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 2
- SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

**Composition/information on ingredients**

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>Classification</th>
</tr>
</thead>
</table>
| Ethanol| ≥50 - ≤75 | FLAMMABLE LIQUIDS - Category 2
|        |       | SKIN IRRITATION - Category 2
|        |       | EYE IRRITATION - Category 2A
|        |       | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3
|        |       | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
|        |       | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
|        |       | HNOC - Defatting irritant
|        |       | FLAMMABLE LIQUIDS - Category 2
|        |       | EYE IRRITATION - Category 2A
|        |       | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3
|        |       | SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
|        |       | HNOC - Defatting irritant

| Propan-2-ol | ≤10 | FLAMMABLE LIQUIDS - Category 2
|            |     | SKIN IRRITATION - Category 2
|            |     | EYE IRRITATION - Category 2A
|            |     | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3
|            |     | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
|            |     | SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
|            |     | HNOC - Defatting irritant
|            |     | FLAMMABLE LIQUIDS - Category 2
|            |     | EYE IRRITATION - Category 2A
|            |     | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3
|            |     | SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 3

| Methanol | <6  | FLAMMABLE LIQUIDS - Category 2
|         |     | SKIN IRRITATION - Category 2
|         |     | EYE IRRITATION - Category 2A
|         |     | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3
|         |     | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
|         |     | SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
|         |     | HNOC - Defatting irritant
|         |     | FLAMMABLE LIQUIDS - Category 2
|         |     | EYE IRRITATION - Category 2A
|         |     | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3
|         |     | SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 3

**Date of issue:** 06/03/2020
## Section 15. Regulatory information

### SARA 313

<table>
<thead>
<tr>
<th>Form R - Reporting requirements</th>
<th>Product name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>67-56-1</td>
<td>&lt;6</td>
</tr>
<tr>
<td>Methanol</td>
<td>7647-01-0</td>
<td>7647-01-0</td>
<td>≤1.9</td>
</tr>
</tbody>
</table>

| Supplier notification           | Methanol           | 67-56-1         | <6    |
| Hydrochloric acid               | 7647-01-0          | 7647-01-0       | ≤1.9  |

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

### State regulations

**Massachusetts**: The following components are listed: ETHYL ALCOHOL; DENATURED ALCOHOL; ISOPROPYL ALCOHOL; 2-PROPANOL; METHANOL; METHYL ALCOHOL; HYDROGEN CHLORIDE; HYDROCHLORIC ACID

**New York**: The following components are listed: Methanol; Hydrochloric acid

**New Jersey**: The following components are listed: ETHYL ALCOHOL; ALCOHOL; ISOPROPYL ALCOHOL; 2-PROPANOL; METHYL ALCOHOL; METHANOL; HYDROGEN CHLORIDE; HYDROCHLORIC ACID

**Pennsylvania**: The following components are listed: DENATURED ALCOHOL; ETHANOL; 2-PROPANOL; METHANOL; HYDROCHLORIC ACID

### California Prop. 65

⚠️ **WARNING**: This product can expose you to Methanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

### ingredient name

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>No significant risk level</th>
<th>Maximum acceptable dosage level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td>-</td>
<td>Yes.</td>
</tr>
</tbody>
</table>

### 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.

**Date of issue**: 06/03/2020
Section 15. Regulatory information

UNECE Aarhus Protocol on POPs and Heavy Metals
Not listed.

Inventory list

Australia : All components are listed or exempted.
Canada : All components are listed or exempted.
China : All components are listed or exempted.
Europe : All components are listed or exempted.
Japan : Japan inventory (ENCS): Not determined.
        Japan inventory (ISHL): Not determined.
New Zealand : All components are listed or exempted.
Philippines : Not determined.
Republic of Korea : Not determined.
Taiwan : All components are listed or exempted.
Thailand : Not determined.
Turkey : Not determined.
United States : All components are active or exempted.
Viet Nam : All components are listed or exempted.

Section 16. Other information

History
Date of issue : 06/03/2020
Date of previous issue : 06/20/2019
Version : 4
Key to abbreviations : ATE = Acute Toxicity Estimate
                      BCF = Bioconcentration Factor
                      GHS = Globally Harmonized System of Classification and Labelling of Chemicals
                      IATA = International Air Transport Association
                      IBC = Intermediate Bulk Container
                      IMDG = International Maritime Dangerous Goods
                      LogPow = logarithm of the octanol/water partition coefficient
                      MARPOL = International Convention for the Prevention of Pollution From Ships, 1973
                      as modified by the Protocol of 1978. ("Marpol" = marine pollution)
                      N/A = Not available
                      UN = United Nations

Procedure used to derive the classification

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLAMMABLE LIQUIDS - Category 2</td>
<td>On basis of test data</td>
</tr>
<tr>
<td>ACUTE TOXICITY (oral) - Category 4</td>
<td>Calculation method</td>
</tr>
<tr>
<td>SKIN IRRITATION - Category 2</td>
<td>Calculation method</td>
</tr>
<tr>
<td>EYE IRRITATION - Category 2A</td>
<td>Calculation method</td>
</tr>
<tr>
<td>TOXIC TO REPRODUCTION - Category 1B</td>
<td>Calculation method</td>
</tr>
<tr>
<td>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 2</td>
<td>Calculation method</td>
</tr>
<tr>
<td>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3</td>
<td>Calculation method</td>
</tr>
<tr>
<td>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3</td>
<td>Calculation method</td>
</tr>
<tr>
<td>SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>

Indicates information that has changed from previously issued version.
Notice to reader

Disclaimer: The information contained in this document is based on Dako state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.