SAFETY DATA SHEET
METHYL VIOLET CONCENTRATE
According to Regulation (EU) No 453/2010

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier
Product name METHYL VIOLET CONCENTRATE
Product No. PL.8011, PL.8011/4, PL.8011/5

1.2. Relevant identified uses of the substance or mixture and uses advised against
Identified uses Laboratory reagent.
Uses advised against No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet
Supplier Pro-Lab Diagnostics
3 Bassendale Road
Wirral
Merseyside
CH62 3QL
Tel: 0151 353 1613
Fax: 0151 353 1614
mowen@pro-lab.com

1.4. Emergency telephone number
+44 (0)151 353 1613 Monday to Friday 9.00 to 17.00
+44 (0)7714 429 646 outside the above hours

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture
Human health
Irritating to eyes. Limited evidence of a carcinogenic effect.
Environment
Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Physical and Chemical Hazards
Flammable. Vapours may be ignited by a spark, a hot surface or an ember.

2.2. Label elements
Contains C.I. BASIC VIOLET 3
Labelling
Harmful
Dangerous for the environment

Risk Phrases
R10 Flammable.
R36 Irritating to eyes.
R40 Limited evidence of a carcinogenic effect.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37 Wear suitable protective clothing and gloves.
S51 Use only in well-ventilated areas.
S57 Use appropriate containment to avoid environmental contamination.
S60 This material and its container must be disposed of as hazardous waste.
2.3. Other hazards

This product does not contain any PBT or vPvB substances.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

<table>
<thead>
<tr>
<th>ETHANOL</th>
<th>30-60%</th>
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<tbody>
<tr>
<td>CAS-No.: 64-17-5</td>
<td>EC No.: 200-578-6</td>
</tr>
<tr>
<td>Classification (EC 1272/2008)</td>
<td>Classification (67/548/EEC)</td>
</tr>
<tr>
<td>Flam. Liq. 2 - H225</td>
<td>F:R11</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C.I. BASIC VIOLET 3</th>
<th>5-10%</th>
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<tbody>
<tr>
<td>CAS-No.: 548-62-9</td>
<td>EC No.: 208-953-6</td>
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<td>Classification (EC 1272/2008)</td>
<td>Classification (67/548/EEC)</td>
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<tr>
<td>Acute Tox. 4 - H302</td>
<td>Carc. Cat. 3:R40</td>
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<tr>
<td>Eye Dam. 1 - H318</td>
<td>Xn:R22</td>
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<tr>
<td>Carc. 2 - H351</td>
<td>Xi:R41</td>
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<tr>
<td>Aquatic Acute 1 - H400</td>
<td>N:R50/53</td>
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<tr>
<td>Aquatic Chronic 1 - H410</td>
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</table>

<table>
<thead>
<tr>
<th>METHANOL</th>
<th>1-5%</th>
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<tr>
<td>CAS-No.: 67-56-1</td>
<td>EC No.: 200-659-6</td>
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<tr>
<td>Classification (EC 1272/2008)</td>
<td>Classification (67/548/EEC)</td>
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<tr>
<td>Flam. Liq. 2 - H225</td>
<td>F:R11</td>
</tr>
<tr>
<td>Acute Tox. 3 - H301</td>
<td>T:R23/24/25,R39/23/24/25</td>
</tr>
<tr>
<td>Acute Tox. 3 - H311</td>
<td></td>
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<tr>
<td>Acute Tox. 3 - H331</td>
<td></td>
</tr>
<tr>
<td>STOT SE 1 - H370</td>
<td></td>
</tr>
</tbody>
</table>

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation
Move the exposed person to fresh air at once.

Ingestion
Do not induce vomiting. Immediately rinse mouth and provide fresh air. Get medical attention if any discomfort continues.

Skin contact
Wash off promptly and flush contaminated skin with water. Promptly remove clothing if soaked through and flush skin with water.

Eye contact
Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Get medical attention if any discomfort continues.

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

Inhalation
Irritation of nose, throat and airway.

Ingestion
May cause discomfort if swallowed.
Skin contact
Prolonged skin contact may cause redness and irritation.

Eye contact
May irritate eyes.

4.3. Indication of any immediate medical attention and special treatment needed
The severity of the symptoms described will vary dependant of the concentration and the length of exposure.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media
Extinguishing media
Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media
Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture
Hazardous combustion products
Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

Unusual Fire & Explosion Hazards
No unusual fire or explosion hazards noted.

5.3. Advice for firefighters
Special Fire Fighting Procedures
Containers close to fire should be removed immediately or cooled with water. Keep run-off water out of sewers and water sources. Dike for water control.

Protective equipment for fire-fighters
Self contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures
Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions
Do not discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up
Absorb in vermiculite, dry sand or earth and place into containers. Flush with plenty of water to clean spillage area. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.

6.4. Reference to other sections
Wear protective clothing as described in Section 8 of this safety data sheet. See section 11 for additional information on health hazards.
For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling
Read and follow manufacturer's recommendations. Avoid spilling, skin and eye contact. Wash hands after handling.

7.2. Conditions for safe storage, including any incompatibilities
Store in tightly closed original container in a dry and cool place.

Storage Class
Flammable liquid storage.

7.3. Specific end use(s)
The identified uses for this product are detailed in Section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters
METHYL VIOLET CONCENTRATE

<table>
<thead>
<tr>
<th>Name</th>
<th>STD</th>
<th>TWA - 8 Hrs</th>
<th>STEL - 15 Min</th>
<th>Notes</th>
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<tbody>
<tr>
<td>ETHANOL</td>
<td>WEL</td>
<td>1000 ppm</td>
<td>1920 mg/m³</td>
<td></td>
</tr>
<tr>
<td>METHANOL</td>
<td>WEL</td>
<td>200 ppm</td>
<td>266 mg/m³</td>
<td>250 ppm</td>
</tr>
</tbody>
</table>

WEL = Workplace Exposure Limit.
Sk = Can be absorbed through skin.

METHANOL (CAS: 67-56-1)

<table>
<thead>
<tr>
<th>DNEL</th>
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<tbody>
<tr>
<td>Workers Dermal</td>
</tr>
<tr>
<td>Workers Inhalation.</td>
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<tr>
<td>Workers Inhalation.</td>
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<tr>
<td>Workers Dermal</td>
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<tr>
<td>Workers Inhalation.</td>
</tr>
<tr>
<td>Consumer Dermal</td>
</tr>
<tr>
<td>Consumer Inhalation.</td>
</tr>
<tr>
<td>Workers Oral</td>
</tr>
<tr>
<td>Workers Inhalation.</td>
</tr>
</tbody>
</table>

Workers Short Term Systemic Effects 40 mg/kg/day
Workers Long Term Systemic Effects 260 mg/m³
Workers Short Term Local Effects 260 mg/m³
Workers Long Term Local Effects 40 mg/kg/day
Workers Short Term Local Effects 8 mg/kg/day
Woman Dermal Short Term Systemic Effects 8 mg/kg/day
Women Long Term Local Effects 50 mg/m³

PNEC

| Freshwater | 154 mg/l |
| Marinewater | 15.4 mg/l |
| Intermittent release | 1540 mg/l |
| STP        | 100 mg/l |
| Sediment (Freshwater) | 570.4 mg/kg |
| Soil       | 23.5 mg/kg |

ETHANOL (CAS: 64-17-5)

<table>
<thead>
<tr>
<th>DNEL</th>
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</thead>
<tbody>
<tr>
<td>Workers Inhalation.</td>
</tr>
<tr>
<td>Workers Dermal</td>
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<tr>
<td>Workers Inhalation.</td>
</tr>
<tr>
<td>Workers Dermal</td>
</tr>
<tr>
<td>Workers Inhalation.</td>
</tr>
<tr>
<td>Consumer Inhalation.</td>
</tr>
<tr>
<td>Consumer Dermal</td>
</tr>
<tr>
<td>Consumer Inhalation.</td>
</tr>
<tr>
<td>Consumer Oral</td>
</tr>
</tbody>
</table>

Workers Short Term Local Effects 1900 mg/m³
Workers Long Term Systemic Effects 343 mg/kg/day
Workers Long Term Systemic Effects 950 mg/m³
Workers Short Term Local Effects 950 mg/m³
Workers Long Term Systemic Effects 206 mg/kg/day
Consumer Oral Long Term Systemic Effects 114 mg/m³

PNEC

| Freshwater | 0.96 mg/l |
| Marinewater | 0.79 mg/l |
| Intermittent release | 2.75 mg/l |
| STP        | 580 mg/l |
| Sediment (Freshwater) | 3.6 mg/kg |
| Soil       | 0.63 mg/kg |

8.2. Exposure controls

Respiratory equipment
If ventilation is insufficient, suitable respiratory protection must be provided. Seek advice from supervisor on the companies' respiratory protection standards.

Hand protection
For prolonged or repeated skin contact use suitable protective gloves. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

Eye protection
Wear approved, tight fitting safety glasses where splashing is probable.

Hygiene measures
Wash hands at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance: Liquid
Colour: Deep violet.
Odour: Odour of alcohol.
Solubility: Soluble in water.

Initial boiling point and boiling range (°C)
Not determined.
METHYL VIOLET CONCENTRATE

Melting point (°C)  Not determined.
Relative density  Not determined.
Bulk Density  Not determined.
Vapour density (air=1)  Not determined.
Vapour pressure  Not determined.
Evaporation rate  Not determined.
Evaporation Factor  Not determined.
pH-Value, Conc. Solution  Not determined.
pH-Value, Diluted Solution  Not determined.
Viscosity  Not determined.
Solubility Value (g/100g H2O@20°C)  Not determined.
Decomposition temperature (°C)  Not determined.
Odour Threshold, Lower  Not determined.
Odour Threshold, Upper  Not determined.
Flash point (°C)  ~ 25°C CC (Closed cup).
Auto Ignition Temperature (°C)  Not determined.
Flammability Limit - Lower(%)  Not determined.
Flammability Limit - Upper(%)  Not determined.
Partition Coefficient (N-Octanol/Water)  Not determined.
Explosive properties  Not determined.
Oxidising properties  Not determined.

9.2. Other information  Not determined.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity
There are no known reactivity hazards associated with this product.

10.2. Chemical stability
Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions
Hazardous Polymerisation
Will not polymerise.

10.4. Conditions to avoid
Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials
Materials To Avoid
No incompatible groups noted.

10.6. Hazardous decomposition products
None at ambient temperatures.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity:
Based on available data the classification criteria are not met.

Skin Corrosion/Irritation:
Based on available data the classification criteria are not met.

Serious eye damage/irritation:
Irritating to eyes.

Respiratory or skin sensitisation:
Based on available data the classification criteria are not met.

Germ cell mutagenicity:
Based on available data the classification criteria are not met.

Carcinogenicity:
Limited evidence of a carcinogenic effect.

Reproductive Toxicity:
Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure:
Not classified as a specific target organ toxicant after repeated exposure.

Toxicological information on ingredients.
**Acute toxicity:**
Toxic by inhalation, in contact with skin and if swallowed.

**Skin Corrosion/Irritation:**
Dose
20 hr Rabbit

Erythema eschar score
No erythema (0).

Oedema score
No oedema (0).

REACH dossier information
Not irritating. Based on available data the classification criteria are not met.

**Serious eye damage/irritation:**
Not irritating. Based on available data the classification criteria are not met.

**Respiratory or skin sensitisation:**
Skin sensitisation
Guinea pig maximization test (GPMT): Guinea Pig

REACH dossier information
Not sensitising. Based on available data the classification criteria are not met.

**Germ cell mutagenicity:**
Genotoxicity - In Vitro
Gene Mutation:
REACH dossier information
Negative.

Based on available data the classification criteria are not met.

**Carcinogenicity:**
Carcinogenicity
NOAEC ≥ 1.3 mg/l Inhalation. Rat

REACH dossier information
This substance has no evidence of carcinogenic properties.
METHYL VIOLET CONCENTRATE
ETHANOL (CAS: 84-17-5)

**Acute toxicity:**
Acute Toxicity (Oral LD50)
10470 mg/kg Rat
REACH dossier information

Acute Toxicity (Inhalation LC50)
116.9 mg/l (vapours) Rat 4 hours
REACH dossier information

**Skin Corrosion/Irritation:**
Dose
0.2 mL 24 day Rabbit
Primary dermal irritation index (PDI)
0
REACH dossier information
Not irritating. Based on available data the classification criteria are not met.

**Germ cell mutagenicity:**
Genotoxicity - In Vitro
Gene Mutation:
REACH dossier information
Negative.
Based on available data the classification criteria are not met.

Genotoxicity - In Vivo
Chromosome aberration:
REACH dossier information
Inconclusive.
Based on available data the classification criteria are not met.

**Reproductive Toxicity:**
Reproductive Toxicity - Fertility
Two-generation study: NOAEL 15 % in water Oral Mouse P
REACH dossier information
Based on available data the classification criteria are not met.

Reproductive Toxicity - Development
Developmental toxicity: LOAEL 8200 mg/kg/day Oral Rat
REACH dossier information
Based on available data the classification criteria are not met.

**Specific target organ toxicity - repeated exposure:**
STOT - Repeated exposure
NOAEL 10 ml/kg of 16.25% ethanol Oral Rat
REACH dossier information
Not classified as a specific target organ toxicant after repeated exposure.
**Acute Toxicity:**
Acute Toxicity (Oral LD50)
670 mg/kg Rat
REACH dossier information
Harmful if swallowed.

**Skin Corrosion/Irritation:**
Dose
3 day Human
Primary dermal irritation index (PDI)
< 3
REACH dossier information
Slightly irritating. Based on available data the classification criteria are not met.

**Serious eye damage/irritation:**
Risk of serious damage to eyes.

**Germ cell mutagenicity:**
Genotoxicity - In Vitro
Gene Mutation:
REACH dossier information
Based on available data the classification criteria are not met.

### SECTION 12: ECOLOGICAL INFORMATION

#### 12.1. Toxicity

**Acute Fish Toxicity**
Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Ecological information on ingredients.**

**METHANOL (CAS: 67-56-1)**

96 hours 15400 mg/l Lepomis macrochirus (Bluegill)
REACH dossier information
**Acute Toxicity - Aquatic Invertebrates**
EC50 48 hours > 10000 mg/l Daphnia magna
REACH dossier information
**Acute Toxicity - Aquatic Plants**
EC50 96 hours ~ 22000 mg/l Freshwater algae
REACH dossier information
**Acute Toxicity - Microorganisms**
IC50 3 hours > 1000 mg/l Activated sludge

**ETHANOL (CAS: 64-17-5)**

Acute Toxicity - Fish
LC50 96 hours 15300 mg/l Pimephales promelas (Fat-head Minnow)
REACH dossier information
**Acute Toxicity - Aquatic Invertebrates**
LC50 48 hours 5012 mg/l Ceriodaphnia dubia
REACH dossier information
**Acute Toxicity - Aquatic Plants**
EC50 96 hours 675 mg/l Chlorella vulgaris
REACH dossier information

**C.I. BASIC VIOLET 3 (CAS: 548-62-9)**

**Acute Toxicity - Aquatic Invertebrates**
EC50 48 hours 0.24 - 0.5 mg/l Daphnia magna
REACH dossier information
**Acute Toxicity - Aquatic Plants**
EC50 72 hours 0.025 - 0.8 mg/l Selenastrum capricornutum
REACH dossier information
12.2. Persistence and degradability

Degradability
There are no data on the degradability of this product.

Ecological information on ingredients.

METHANOL (CAS: 67-56-1)
Phototransformation
Air. DT50 17.2 days
REACH dossier information

Biodegradation
Water Degradation (71.5%) 5 days
REACH dossier information
Water Degradation (95%) 20 days
REACH dossier information
The substance is readily biodegradable.

ETHANOL (CAS: 64-17-5)
Biodegradation
Water Degradation (95%) 15 days
Water Degradation (74%) 10 days
REACH dossier information
The substance is readily biodegradable.

Chemical Oxygen Demand
1.99 g O2/g substance
REACH dossier information

C.I. BASIC VIOLET 3 (CAS: 548-62-9)
Biodegradation
Water Degradation (3.6%) 28 days
REACH dossier information
The substance is readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential
No data available on bioaccumulation.

Partition coefficient
Not determined.

Ecological information on ingredients.

METHANOL (CAS: 67-56-1)
Partition coefficient
log Pow -0.77
REACH dossier information

ETHANOL (CAS: 64-17-5)
Partition coefficient
log Pow -0.35 @ 24 °C

C.I. BASIC VIOLET 3 (CAS: 548-62-9)
Partition coefficient
log Pow 1.172 @ 25 °C
REACH dossier information

12.4. Mobility in soil

Mobility:
The product is soluble in water.
METHYL VIOLET CONCENTRATE

Ecological information on ingredients.

**METHANOL (CAS: 67-56-1)**

Mobility:
No mobility data available for substance.

**ETHANOL (CAS: 64-17-5)**

Surface tension
24.5 mN/m @ 20 °C
REACH dossier information

**C.I. BASIC VIOLET 3 (CAS: 548-62-9)**

Surface tension
44.2 mN/m
REACH dossier information

12.5. Results of PBT and vPvB assessment

Not determined.

12.6. Other adverse effects

Not determined.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements. Recover and reclaim or recycle, if practical.

SECTION 14: TRANSPORT INFORMATION

14.1. UN number

UN No. (ADR/RID/ADN) 1993
UN No. (IMDG) 1993
UN No. (ICAO) 1993

14.2. UN proper shipping name

Proper Shipping Name FLAMMABLE LIQUID, N.O.S. (ETHANOL, C.I. BASIC VIOLET 3)

14.3. Transport hazard class(es)

ADR/RID/ADN Class 3
ADR/RID/ADN Class Class 3: Flammable liquids.
ADR Label No. 3
IMDG Class 3
ICAO Class/Division 3
Transport Labels

14.4. Packing group

ADR/RID/ADN Packing group III
IMDG Packing group III
ICAO Packing group III

14.5. Environmental hazards
14.6. Special precautions for user

EMS F-E, S-E
Emergency Action Code •3Y
Hazard No. (ADR) 30
Tunnel Restriction Code (D/E)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

SECTION 15: REGULATORY INFORMATION

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

Statutory Instruments

Approved Code Of Practice
Classification and Labelling of Substances and Preparations Dangerous for Supply.

Guidance Notes
Workplace Exposure Limits EH40.

EU Legislation

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Revision Comments
Revision Date 11-2012
Revision 7
Supersedes date 11-2011

Risk Phrases In Full
R10 Flammable.
R22 Harmful if swallowed.
R11 Highly flammable
R36 Irritating to eyes.
R40 Limited evidence of a carcinogenic effect.
R41 Risk of serious damage to eyes.
R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
<table>
<thead>
<tr>
<th>Hazard Statements in Full</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H370</td>
<td>Causes damage to organs &lt;&lt;Organs&gt;&gt;.</td>
</tr>
<tr>
<td>H318</td>
<td>Causes serious eye damage.</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>H226</td>
<td>Flammable liquid and vapour.</td>
</tr>
<tr>
<td>H302</td>
<td>Harmful if swallowed.</td>
</tr>
<tr>
<td>H225</td>
<td>Highly flammable liquid and vapour.</td>
</tr>
<tr>
<td>H351</td>
<td>Suspected of causing cancer.</td>
</tr>
<tr>
<td>H331</td>
<td>Toxic if inhaled.</td>
</tr>
<tr>
<td>H301</td>
<td>Toxic if swallowed.</td>
</tr>
<tr>
<td>H311</td>
<td>Toxic in contact with skin.</td>
</tr>
<tr>
<td>H411</td>
<td>Toxic to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>H410</td>
<td>Very toxic to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life.</td>
</tr>
</tbody>
</table>

**Disclaimer**

The information in this safety data sheet was obtained from current and reliable sources. However, the data is provided without warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond Pro-Lab Diagnostics control, it is the users responsibility to perform thorough testing of this product when used in combination with any other product. It is suggested that users familiarise themselves with this safety data sheet before handling the product.