10% FORMALIN SAFETY DATA SHEET
This Safety Datasheet complies with the requirements of Regulation (EC) No 1907/2006

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/ MIXTURE AND THE COMPANY/UNDERTAKING
1.1 Product Identifier: 10% Formalin
145200, 145300, 145400, 145420, 145700, 145800, 145900, 1460, 146200, 146300, 146400, 148900, 148910, 148926, 148980, 148998, 149910, 151000

1.2 Relevant identified uses of the substance or mixture and uses advised against: laboratory chemical (in vitro diagnostic)

1.3 Details of the supplier of the Safety Data Sheet:
Apacor Limited, Unit 5 Sapphire Centre, Fishponds Road, Wokingham, Berkshire, RG41 2QL, England
+44 (0) 118 979 5566
technical@apacor.com

1.4 Emergency telephone number:
+44 (0)118 979 5566
(Monday-Friday 0900-1700 excluding UK Public Holidays)

SECTION 2 HAZARDS IDENTIFICATION
2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008 [CLP]:
Acute toxicity, Oral (Category 4), H302
Skin sensitisation (Category 1), H317
Acute toxicity, Inhalation (Category 4), H332
Germ cell mutagenicity (Category 2), H341
Carcinogenicity (Category 1B), H350
See Section 16 for the full text of H-Statements mentioned in this Section.

2.2 Label elements
Labelling according to Regulation (EC) No 1272/2008 [CLP]

Pictogram
Signal word Danger
Hazard statement(s)
H302 Harmful if swallowed
H317 May cause an allergic skin reaction.
H332 Harmful if inhaled.
H341 Suspected of causing genetic defects
H350 May cause cancer
Contains Formaldehyde.

Precautionary statements:
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.
P308 + P333 IF exposed or concerned: Get medical advice/attention.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

See Section 16 for the full text of H-Statements mentioned in this Section.

2.3 Other hazards
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS
3.2 Mixtures
Hazardous ingredients according to Regulation (EC) No 1272/2008
Component: Formaldehyde
CAS No: 50-00-0
EC No: 200-001-8
Index No: 605-001-00-5
Classification: Acute Tox. 3 (H301 + H311 + H331), Skin Corr. 1B (H314), Skin Sens. 1 (H317), Muta. 2 (H341), Carc. 1B (H350)
Concentration: < 5%
Component: Methanol
CAS No: 67-56-1
EC No: 200-659-6
Index No: 603-001-00-x
Registration No: 01-211943307-44-xxxx
Classification: Flam. Liq. 2 (H225); Acute Tox. 3 (H301 + H311 + H331); STOT SE 1 H370
Concentration: < 1%
See Section 16 for the full text of H-Statements mentioned in this Section.

SECTION 4 FIRST AID MEASURES
4.1 Description of first aid measures
Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact: Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.
In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (Section 2.2) and/or Section 11.

4.3 Indication of any immediate medical attention and special treatment needed
No data available.

SECTION 5 FIRE FIGHTING MEASURES
5.1 Extinguishing media
Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture
Carbon oxides

5.3 Advice for firefighters
Wear self-contained breathing apparatus and full protective gear.
SECTION 6 ACCIDENTAL RELEASE MEASURES
6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition—no smoking. Take measures to prevent the build-up of electrostatic charge. For precautions see Section 2.2.

6.2 Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and material for containment and cleaning up
Contain spillage, and then collect and place in container for disposal according to local regulations (see Section 13). Keep in suitable, closed containers for disposal.

6.4 Reference to other sections
For disposal, see Section 13.

6.5 First-aid measures
See Section 11.

SECTION 7 HANDLING AND STORAGE
7.1 Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition—no smoking. Take measures to prevent the build-up of electrostatic charge. For precautions see Section 2.2.

7.2 Conditions for safe storage, including any incompatibilities
Store in a cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

7.3 Specific end use(s)
No other specific uses are specified apart from those listed in Section 1.2.

SECTION 8 EXPOSURE CONTROLS/PERSOandal protection
8.1 Control parameters
Exposure limits: this product, as supplied, does not contain chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

8.2 Exposure controls
8.2.1 Appropriate engineering controls
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

8.2.2 Personal protective equipment
(a) Eye/face protection: Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

(b) Skin protection: Handle with gloves. Gloves must be inspected prior to use. Proper glove removal technique (without touching glove’s outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves should satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

(c) Body Protection: Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

(d) Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

8.2.3 Environmental exposure controls
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

<table>
<thead>
<tr>
<th></th>
<th>Formaldehyde 50-00-0</th>
<th>Methanol 67-56-1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>STEL: 0.5 ppm</td>
<td>STEL: 800 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA: 0.5 ppm</td>
<td>TWA: 200 ppm</td>
</tr>
<tr>
<td>Belgium</td>
<td>STEL: 0.3 ppm</td>
<td>STEL: 250 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA: 0.3 ppm</td>
<td>TWA: 200 ppm</td>
</tr>
<tr>
<td></td>
<td>STEL: 0.38 mg/m³</td>
<td>STEL: 333 mg/m³</td>
</tr>
<tr>
<td></td>
<td>TWA: 0.38 mg/m³</td>
<td>TWA: 266 mg/m³</td>
</tr>
<tr>
<td>Denmark</td>
<td>STEL: 0.3 ppm</td>
<td>STEL: 400 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA: 0.3 ppm</td>
<td>TWA: 200 ppm</td>
</tr>
<tr>
<td></td>
<td>STEL: 0.4 mg/m³</td>
<td>STEL: 520 mg/m³</td>
</tr>
<tr>
<td></td>
<td>TWA: 0.4 mg/m³</td>
<td>TWA: 260 mg/m³</td>
</tr>
<tr>
<td>France</td>
<td>TWA: 0.5 ppm</td>
<td>TWA: 1000 ppm</td>
</tr>
<tr>
<td></td>
<td>STEL: 1 ppm</td>
<td>STEL: 200 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA: 1 ppm</td>
<td>TWA: 200 ppm</td>
</tr>
<tr>
<td></td>
<td>STEL: 1300 mg/m³</td>
<td>STEL: 260 mg/m³</td>
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<td></td>
<td>TWA: 1300 mg/m³</td>
<td>TWA: 260 mg/m³</td>
</tr>
<tr>
<td>Germany</td>
<td>STEL: 0.6 ppm</td>
<td>STEL: 800 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA: 0.6 ppm</td>
<td>TWA: 200 ppm</td>
</tr>
<tr>
<td></td>
<td>STEL: 0.74 mg/m³</td>
<td>STEL: 1080 mg/m³</td>
</tr>
<tr>
<td></td>
<td>TWA: 0.74 mg/m³</td>
<td>TWA: 200 ppm</td>
</tr>
<tr>
<td></td>
<td>STEL: 0.37 mg/m³</td>
<td>STEL: 270 mg/m³</td>
</tr>
<tr>
<td></td>
<td>TWA: 0.37 mg/m³</td>
<td>TWA: 266 mg/m³</td>
</tr>
</tbody>
</table>
SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES
9.1 Information on basic physical and chemical properties
a) Appearance  Form: liquid
b) Odour  no data available
c) Odour threshold  no data available
d) pH  no data available
e) Melting point / freezing point  no data available
f) Initial boiling point and boiling range  100°C at 1.013 hPa
g) Flash point  85°C
h) Evaporation rate  no data available
i) Flammability (solid, gas)  no data available
j) Upper/lower flammability or explosive limits
   Upper 70% (V), Lower 7% (V)
k) Vapour pressure  53hPa at 39°C
l) Vapour density  no data available
m) Relative density  1.080g/cm³
n) Solubility (ies)  completely miscible
o) Partition coefficient: n-octanol/water  no data available
p) Auto-ignition temperature  no data available
q) Decomposition temperature  no data available
r) Viscosity  no data available
s) Explosive properties  no data available
t) Oxidising properties  no data available
9.2 Other information
No data available.

SECTION 10 STABILITY AND REACTIVITY
10.1 Reactivity
No data available.
10.2 Chemical stability
Stable under recommended storage conditions.
10.3 Possibility of hazardous reactions
No data available.
10.4 Conditions to avoid
Heat, flames and sparks.
10.5 Incompatible materials
No materials to be mentioned in particular.
10.6 Hazardous decomposition products
Carbon oxides.

SECTION 11 TOXICOLOGICAL INFORMATION
11.1 Information of toxicological effects
Acute toxicity: no data available
Skin corrosion/irritation: no data available
Serious eye damage/eye irritation: no data available
Respiratory or skin sensitisation: no data available
Germ cell mutagenicity: no data available
Carcinogenicity: IARC: 1 - Group 1: Carcinogenic to humans (Formaldehyde)
Reproductive toxicity: no data available
Specific target organ toxicity - repeated exposure: no data available
Specific target organ toxicity - single exposure: no data available
Aspiration hazard: no data available
Additional Information

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LD₅₀ oral 600mg/kg (Rat)</th>
<th>LD₅₀ dermal 270mg/kg (Rabbit)</th>
<th>LC₅₀ inhalation 0.578mg/L (Rat) 4h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td></td>
<td>1.5 hPa</td>
<td></td>
</tr>
<tr>
<td>Methanol</td>
<td></td>
<td>1.080g/cm³</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 12 ECOLOGICAL INFORMATION
12.1 Toxicity
Ecotoxicity effects: contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

Toxicity to Fish

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>0.032 - 0.226: 96 h Oncorhynchus mykiss mL/L LC₅₀</th>
<th>11.3 - 18: 48 h Daphnia magna mg/L EC₅₀</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>flow-through 100- 136: 96 h Oncorhynchus mykiss mg/L LC₅₀ static 1510: 96 h Lepomis macrochirus μg/L LC₅₀ static 22.6 - 25.7: 96 h Pimephales promelas mg/L LC₅₀ flow-through 23.2 - 29.7: 96 h Pimephales promelas mg/L LC₅₀ static 41: 96 h Brachydanio rerio mg/L LC₅₀ static</td>
<td></td>
</tr>
<tr>
<td>Methanol</td>
<td>&gt;10000mg/l</td>
<td>2: 48 h Daphnia magna mg/L LC₅₀</td>
</tr>
</tbody>
</table>

Toxicity to Daphnia and other Aquatic Invertebrates

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>11.3 - 18: 48 h Daphnia magna mg/L EC₅₀ Static</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>2: 48 h Daphnia magna mg/L LC₅₀</td>
</tr>
<tr>
<td>Methanol</td>
<td>EC₅₀ - Daphnia magna - &gt;10000mg/l</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability
No data available.
12.3 Bioaccumulative potential
No data available.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>log Pow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>0.35</td>
</tr>
<tr>
<td>Methanol</td>
<td>-0.77</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil
No data available.

12.5 Results of PBT and vPvB assessment
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects
No data available.

12.7 Additional information
None.

SECTION 13 DISPOSAL CONSIDERATIONS
13.1 Waste treatment methods
Product: Dispose of in accordance with all federal, state, and local regulations. This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging: Dispose of as unused product.
SECTION 14 TRANSPORT INFORMATION

IATA/DOT/ICAO: not regulated

14.1 UN number: -

14.2 UN proper shipping name Not dangerous goods

14.3 Transport hazard class(es): -

14.4 Packing group: -

14.5 Environmental hazards: No

14.6 Special precautions for user: no data available

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
Not intended to be transported in bulk.

SECTION 15 REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/ legislation specific for the substance or mixture
No data available.

15.2 Chemical Safety Assessment
No chemical safety assessment has been carried out for this product.

SECTION 16 OTHER INFORMATION

Full text of H-Statements referred to in Sections 2 and 3

H225 Highly flammable liquid and vapour.

H301 + H311 + H331 Toxic if swallowed, in contact with skin or if inhaled

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H332 Harmful if inhaled.

H341 Suspected of causing genetic defects.

H350 May cause cancer.

H370 Causes damage to organs.

Acute Tox. Acute toxicity

Carc. Carcinogenicity

Flam. Liq. Flammable liquids

Muta. Germ cell mutagenicity.

Skin Corr. Skin corrosion

Skin Sens. Skin sensitisation

STOT SE Specific target organ toxicity - single exposure

The information supplied in this SDS is correct to the best of our knowledge. We do not accept any liability for loss, injury or damage, which may result from its use.