1. IDENTIFICATION OF SUBSTANCE / PREPARATION AND COMPANY

Product Name: MYSTOX CTB-DOP
Use(s): Antimicrobial for textile polymer coatings
Company Identification: MURPHY AND SON LIMITED
ALPINE STREET, OLD BASFORD
NOTTINGHAM NG6 0HQ, UNITED KINGDOM
Telephone: 01462 457186
Emergency telephone: 01462 457186 (24hrs)
SDS Competent person: trevor@rising-hsande.co.uk

2. HAZARDS IDENTIFICATION

Physical & Chemical: NON HAZARDOUS
Health: MAY IMPAIR FERTILITY
MAY CAUSE HARM TO THE UNBORN CHILD.
MAY CAUSE SENSITISATION BY SKIN CONTACT
Environmental: TOXIC TO AQUATIC ORGANISMS. MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Characterisation: BLEND OF ORGANIC SUBSTANCES

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No</th>
<th>EINECS/ELINCS</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIS-(2-ETHYLHEXYL) PHTHALATE</td>
<td>117-81-7</td>
<td>204-211-0</td>
<td>Xn: R22, Xi: R43, N: R50, 53</td>
<td>85-95%</td>
</tr>
<tr>
<td>(±)-1-((2,4-DICHLOROPHENYL)-4-PROPYL-1,3-DIOXOLAN-2-YL)-METHYL)-1H-1,2,4-TRIAZOLE</td>
<td>60207-90-1</td>
<td>262-104-4</td>
<td></td>
<td>3-5%</td>
</tr>
<tr>
<td>CARBAMIC ACID, BUTYL-, 3-IODO-2-PROPONYL ESTER</td>
<td>55406-53-6</td>
<td>259-627-5</td>
<td>Xn: R20/22, Xi: R41, N: R50</td>
<td>3-5%</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

General information: Remove contaminated clothing immediately, to be disposed of or washed before reuse.
Inhalation: If inhaled, provide fresh air, warmth, rest and if necessary, seek medical advice.
Skin contact: Wash contaminated skin with soap and large quantities of water. If necessary, seek medical advice.
Eye contact: Wash eyes thoroughly with plenty of water until irritation subsides. If irritation persists, consult an eye specialist/ophthalmologist.
Ingestion: Allow the patient to vomit on his own accord. Give copious water to drink; if necessary seek medical advice.
5. FIRE FIGHTING MEASURES

General hazard  THE PRODUCT IS NOT FLAMMABLE
Extinguishing media  To suit local surroundings (e.g. carbon dioxide, foam or chemical powder)
Extinguishing media not to be used  Water jet
Special exposure hazards  The thermal decomposition products released should be considered toxic if inhaled.
Protective equipment  Wear self-contained breathing apparatus.
Further information  Avoid run-off water entering the drains (e.g. use barriers)

6. ACCIDENTAL RELEASE MEASURES

Methods for cleaning up  Adhere to personal protective measures.
Take up with absorbent material, e.g. sand, sawdust into tightly closable containers. Label container and dispose of as prescribed.
Environmental considerations  Do not allow to get into waste water or waterways; if this occurs, inform the relevant water authority at once.

7. HANDLING & STORAGE

Advice on safe handling  Handle in accordance with good hygiene and safety practice.
Storage conditions  Ensure adequate ventilation of the storage area. Keep containers tightly closed and dry, and away from sources of ignition and direct sunlight.
Further information  Keep away from incompatible substances (e.g. oxidising agents)

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure controls  Workplace Exposure Limits (WELs) have been assigned by the HSE (EH40/2005)
LT(8 hour TWA):  5 mg/m³  WEL for bis-(2-ethylhexyl) phthalate
STEL (15 minutes):  10 mg/m³  WEL for bis-(2-ethylhexyl) phthalate
Engineering controls  Ensure adequate ventilation of working area
Personal protection  Observe normal standards for handling chemicals. Your risk assessment should take account of its toxic effect for reproduction. As a precaution, it is recommended that those with a medical history of sensitisation should not handle this product. Avoid contact with skin and eyes. Wash hands before breaks and after work. Wear personal protective equipment appropriate to the task (see below)
Eye protection  Safety goggles (e.g. EN 166)
Skin protection  PVC or rubber gloves (also consider your own risk assessment; e.g. breakthrough times, rates of diffusion and degradation, tasks undertaken)
Respiratory protection  Approved respirator if appropriate.
Other protection  Protective overalls, antistatic footwear.
9. PHYSICAL & CHEMICAL PROPERTIES

- **Physical form**: Clear free flowing liquid
- **Colour**: Amber
- **Odour**: Odourless
- **pH**: Not applicable.
- **Boiling pt / range**: From 230 °C
- **Melting pt / range**: From -48 °C
- **Flash point**: Approx. 200 °C Data for the phthalate
- **Autoflammbility**: 370 °C Data for the phthalate
- **Density**: 1.0 g/cm³
- **Explosive limits**: Lower: 0.15 % (v/v) Higher: 0.18 % (v/v) Data for the phthalate
- **Viscosity**: Not determined.
- **Vapour pressure**: Not determined
- **Water solubility**: Insoluble

10. STABILITY & REACTIVITY

- **Stability**: Stable under normal conditions of handling.
- **Thermal decomposition**: None known.
- **Conditions to avoid**: None known.
- **Material to avoid**: Oxidising agents
- **Hazardous reactions**: None known.

11. TOXICOLOGICAL INFORMATION

- **Acute toxicity**: LD₅₀ rat (oral) 30000 mg/kg Data for the phthalate
  LD₅₀ rat (derm) 24500 mg/kg Data for the phthalate
- **Dermal compatibility**: No data available.
- **Mucous membrane compatibility**: No data available.

12. ECOLOGICAL INFORMATION

- **Acute toxicity**: LC₅₀ Fish 5.3 mg/l 96 hours (triazole)
  EC₅₀ Daphnia magna 10.2 mg/l 48 hours (triazole)
  EC₅₀ Algae (S subspicatus) 0.76 mg/l 72 hours (triazole)
  LC₅₀ Fish >0.67 mg/l 96 hours (data for the phthalate)
  EC₅₀ Daphnia >0.16 mg/l 48 hours (data for the phthalate)
- **Degradability**: The phthalate is readily degradable, but has high bioaccumulation (LogP<sub>ow</sub>: 7.5)
13. DISPOSAL CONSIDERATIONS

Advice on disposal  In accordance with national and local authority regulations, e.g. The Hazardous Waste (England & Wales) Regulations 2005.

Contaminated packaging  Treat empty containers in the same way as the product or if possible wash out thoroughly and recycle.

14. TRANSPORT INFORMATION

United Nations number  UN 3082
Packaging group  III
IMDG code  9/3082/III
RID / ADR  9, III
ICAO / IATA
Marine pollutant  The product should not be marked as a marine pollutant
Proper shipping name  ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((±)-1-((2-(2,4-DICHLOROPHENYL)-4-PROPYL-1,3-DIOXOLAN-2-YL)-METHYL)-1H-1,2,4-TRIAZOLE)

15. REGULATORY INFORMATION

Classification & labelling  The product is classified in accordance with the Chemicals (Hazard Information and Packaging for Supply) Regulations [CHIP 3.1] Contains bis-(2-ethylhexyl) phthalate; (±)-1-((2-(2,4-dichlorophenyl)-4-propyl-1,3-dioxolan-2-yl)-methyl)-1h-1,2,4- triazole
   Restricted to Professional Users

Risk phrases  
R60  MAY IMPAIR FERTILITY
R61  MAY CAUSE HARM TO THE UNBORN CHILD.
R43  MAY CAUSE SENSITISATION BY SKIN CONTACT
R51/53  TOXIC TO AQUATIC ORGANISMS; MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.

Safety phrases  
S53  AVOID EXPOSURE - OBTAIN SPECIAL INSTRUCTIONS BEFORE USE.
S45  IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL SEEK MEDICAL ADVICE IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE).
S60  THIS MATERIAL AND ITS CONTAINER MUST BE DISPOSED OF AS HAZARDOUS WASTE.
S61  AVOID RELEASE TO THE ENVIRONMENT. REFER TO SPECIAL INSTRUCTIONS/SAFETY DATA SHEET.

Comply with the Control of Substances Hazardous to Health Regulations (COSHH) as amended.
16. OTHER INFORMATION

Further information
The SDS has been revised in the following sections: 1; 2; 3;

Sources of data
Approved Supply List, Approved Carriage List, and other suppliers’ safety data sheets

Risk phrases referred to in section 3

<table>
<thead>
<tr>
<th>Risk Phrase</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>R20:</td>
<td>Harmful by inhalation</td>
</tr>
<tr>
<td>R22:</td>
<td>Harmful if swallowed.</td>
</tr>
<tr>
<td>R41:</td>
<td>Risk of serious damage to eyes.</td>
</tr>
<tr>
<td>R43:</td>
<td>May cause sensitisation by skin contact</td>
</tr>
<tr>
<td>R50:</td>
<td>Very toxic to aquatic organisms</td>
</tr>
<tr>
<td>R53:</td>
<td>May cause long-term adverse effects in the aquatic environment.</td>
</tr>
<tr>
<td>R60:</td>
<td>May impair fertility</td>
</tr>
<tr>
<td>R61:</td>
<td>May cause harm to the unborn child.</td>
</tr>
</tbody>
</table>

Date of issue
05-08-2008

This information is based on our present state of knowledge and is intended to describe our products from the point of view of the safety requirements. It should not be construed as guaranteeing specific properties.

Prepared by Rising HS&E Services