1. IDENTIFICATION OF SUBSTANCE / PREPARATION AND COMPANY

Product Name: MYSTOX CTB-DINP
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)

2. HAZARDS IDENTIFICATION

IRRITANT
DANGEROUS FOR THE ENVIRONMENT

Physical & Chemical: NON HAZARDOUS
Health: MAY CAUSE SENSITISATION BY SKIN CONTACT
THE PRODUCT CONTAINS A SUBSTANCE THAT HAS A WORKPLACE EXPOSURE LIMIT.
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>DI-ISONONYL PHTHALATE</td>
<td>68515-48-0</td>
<td>271-090-9</td>
<td>N.C.</td>
<td>85-95%</td>
</tr>
<tr>
<td>(±)-1-((2-(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>Xn: R22; Xi: R43; N: R50, 53</td>
<td>3-5%</td>
</tr>
<tr>
<td>CARBAMIC ACID, BUTYL-, 3-IODO-2-PROPynyL 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

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

# 6. ACCIDENTAL RELEASE MEASURES

<table>
<thead>
<tr>
<th>Methods for cleaning up</th>
<th>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.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental considerations</td>
<td>Do not allow to get into waste water or waterways; if this occurs, inform the relevant water authority at once.</td>
</tr>
</tbody>
</table>

# 7. HANDLING & STORAGE

<table>
<thead>
<tr>
<th>Advice on safe handling</th>
<th>Handle in accordance with good hygiene and safety practice.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage conditions</td>
<td>Ensure adequate ventilation of the storage area. Keep containers tightly closed and dry, and away from sources of ignition and direct sunlight.</td>
</tr>
<tr>
<td>Further information</td>
<td>Keep away from incompatible substances (e.g. oxidising agents) Test plastic compatibility prior to use</td>
</tr>
</tbody>
</table>

# 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>Exposure controls</th>
<th>Workplace Exposure Limits (WELs) have been assigned by the HSE (EH40/2005)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTEL (8 hour TWA)</td>
<td>ppm  5 mg/m³ WEL for di-isononyl phthalate</td>
</tr>
<tr>
<td>STEL (15 minutes)</td>
<td>ppm  mg/m³</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Engineering controls</th>
<th>Ensure adequate ventilation of working area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal protection</td>
<td>Observe normal standards for handling chemicals. 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)</td>
</tr>
<tr>
<td>Eye protection</td>
<td>Safety goggles (e.g. EN 166)</td>
</tr>
<tr>
<td>Skin protection</td>
<td>PVC or rubber gloves (also consider your own risk assessment; e.g. breakthrough times, rates of diffusion and degradation, tasks undertaken)</td>
</tr>
<tr>
<td>Respiratory protection</td>
<td>Approved respirator if appropriate.</td>
</tr>
<tr>
<td>Other protection</td>
<td>Protective overalls, antistatic footwear.</td>
</tr>
</tbody>
</table>
9. PHYSICAL & CHEMICAL PROPERTIES

Physical form  Clear free flowing liquid
Color  Amber
Odour  Mild ester
pH  Not applicable.

Boiling pt / range  From 250 °C
Melting pt / range  From -48 °C
Flash point  Approx. 214 °C  Data for the phthalate

Autoflammability  380 °C  Data for the phthalate
Density  1.0 g/cm³
Explosive limits  Lower:  % (v/v)  Higher:  % (v/v)
Viscosity  Approx. 105 mPas
Vapour pressure  Not determined
Water solubility  Insoluble

10. STABILITY & REACTIVITY

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

11. TOXICOLOGICAL INFORMATION

Acute toxicity  LD₅₀ rat (oral)  mg/kg  No data available
Dermal compatibility  Mild skin irritation possible after prolonged contact.
Mucous membrane compatibility  May be slightly irritating to eyes.

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)
Degradability  The phthalate is readily degradable and not expected to be harmful to aquatic organisms.
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-((2,4-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 (±)-1-((2,4-dichlorophenyl)-4-propyl-1,3-dioxolan-2-yl)-methyl)-1H-1,2,4- triazole

IRRITANT
DANGEROUS FOR THE ENVIRONMENT

Risk phrases
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
S24 AVOID CONTACT WITH SKIN
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

R20:  Harmful by inhalation
R22:  Harmful if swallowed.
R41:  Risk of serious damage to eyes.
R43:  May cause sensitisation by skin contact
R50:  Very toxic to aquatic organisms
R53:  May cause long-term adverse effects in the aquatic environment.

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.