1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Identification

Product name:  MCS®-352B
Reference Number  000000000174  Date  04.08.2008
Type of product  Preparation

Use of the substance or preparation

Hydraulic fluids and additives

Company Information

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Emergency telephone

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2. HAZARDS IDENTIFICATION

Classification of the substance/preparation

Xn; R40

Index Number (Annex I):

Limited health effects

Limited evidence of a carcinogenic effect.
Contact with the eyes can be very painful but does not cause damage.

Environmental effects

On the basis of available information, this material is not expected to produce any significant adverse environmental effects when recommended use instructions are followed.
3. COMPOSITION/INFORMATION ON INGREDIENTS

Composition

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS No.</th>
<th>EC No.</th>
<th>EC Classification</th>
<th>% w/w</th>
</tr>
</thead>
<tbody>
<tr>
<td>tributyl phosphate</td>
<td>126-73-8</td>
<td>204-800-2</td>
<td>Xn, R22, R38, R40</td>
<td>&gt;=60.0 - &lt;=70.0 %</td>
</tr>
<tr>
<td>¹ copolymer acryl</td>
<td></td>
<td></td>
<td></td>
<td>&gt;=30.0 - &lt;=40.0 %</td>
</tr>
</tbody>
</table>

¹ The specific chemical identity and/or concentration is being withheld because it is trade secret information of Solutia Inc.
See Section 16 for full text of R-phrases

4. FIRST AID MEASURES

General

Remove contaminated clothing immediately.
Wash before re-use.

Eye contact

Immediately flush with plenty of water.
Continue for at least 15 minutes.
Obtain medical advice if there are persistent symptoms.

Skin contact

Wash immediately with plenty of water.
Use soap if available.

Inhalation

Remove patient to fresh air.
Apply artificial respiration if patient is not breathing.
If breathing is difficult give oxygen.
Get medical attention.

Ingestion

Immediate first aid is not likely to be required.

5. FIRE FIGHTING MEASURES

Extinguishing media

Water spray, foam, dry chemical, or carbon dioxide

Exposure hazards

None known

Combustion products:
phosphorus oxides (PxOy), carbon monoxide (CO), carbon dioxide, smoke, soot

Protective equipment
Firefighters, and others exposed, wear self-contained breathing apparatus. Equipment should be thoroughly decontaminated after use.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protection recommended in section 8.

Environmental precautions

Keep out of drains and water courses.

Methods for cleaning up

Contain large spills with dikes and transfer the material to appropriate containers for reclamation or disposal. Absorb remaining material or small spills with an inert material and then place in a chemical waste container. Flush spill area with water.

7. HANDLING AND STORAGE

Handling

Good industrial practice in housekeeping and personal hygiene should be followed. Avoid breathing vapour or mist. Avoid contact with eyes, skin and clothing. Use with adequate ventilation. Keep container closed. Wash thoroughly after handling.

Engineering measures

Provide natural or mechanical ventilation to control exposure levels below airborne exposure limits. If practical, use local mechanical exhaust ventilation at sources of air contamination such as processing equipment.

Storage

Stable under normal conditions of handling and storage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limit

tributyl phosphate

ACGIH TLV: 0,2 ml/m3 ; 2,2 mg/m3 ; 8-hr TWA
Austria : MAK (Maximum concentration in workplace): 2,5 mg/m3 ; 8-hr TWA
Austria : MAK (Maximum concentration in workplace): 5 mg/m3 ; 15-min STEL
Belgium: GRENSWAARDE / VALEUR LIMITE (8h): 0,2 ml/m3 ; 2,2 mg/m3 ;
Denmark : Grænseværdier for Stoffer og Materialer (TWA) :: 0,2 ml/m3 ; 2,5 mg/m3 ;
Respiratory protection

Avoid breathing vapour or mist.
Use approved respiratory protection equipment (full facepiece recommended) when airborne exposure limits are exceeded.
If used, full facepiece replaces the need for face shield and/or chemical goggles.
Consult the respirator manufacturer to determine the appropriate type of equipment for a given application.
Observe respirator use limitations specified by the manufacturer.

Hand protection

Wear chemical resistant gloves. Suitable materials: Neoprene (0.43) The breakthrough time of the glove material, with regard to the amount and duration of dermal exposure: > 4 hours. Nitrile (0.46) The breakthrough time of the glove material, with regard to the amount and duration of dermal exposure: > 8 hours. Latex (0.20 - 0.61) The breakthrough time of the glove material, with regard to the amount and duration of dermal exposure: > 1 hour.

Eye protection

Wear chemical goggles.
Have eye flushing equipment available.

Skin protection

Wear suitable protective clothing.
Wear full protective clothing if exposed to splashes.
Wash contaminated skin promptly.
Launder contaminated clothing and clean protective equipment before reuse.
Wash thoroughly after handling.
9. PHYSICAL AND CHEMICAL PROPERTIES

General information

Form: viscous, oily, liquid
Colour: purple
Odour: characteristic

Important health, safety and environmental information

Boiling point: 176 °C @ 1.013 hPa
Flash point: 177 °C Cleveland Open Cup
Specific gravity: 1.02 @ 25 °C
Dynamic viscosity: 190 - 225 mPa.s @ 99 °C

10. STABILITY AND REACTIVITY

Conditions to avoid

None known

Materials to avoid

Contact with strong oxidizing agents.

Hazardous reactions

Hazardous polymerization does not occur.

Hazardous decomposition products

Decomposition temperature: 176 °C
Decomposition products: phosphorus oxides (P_xO_y), carbon monoxide (CO), carbon dioxide, smoke, soot

11. TOXICOLOGICAL INFORMATION

This product has not been tested for toxicity, but data obtained on similar products are summarized below:

Acute animal toxicity data

Oral

LD50, rat, > 5,000 mg/kg

Dermal

LD50, rabbit, > 2,000 mg/kg

Inhalation

LC50, rat, > 1,811 mg/l, 4 h aerosol No mortality observed at listed concentration.

Eye irritation

rabbit, Slightly irritating to eyes but not sufficient for classification.

Skin irritation

rabbit, Slightly irritating to skin but not sufficient for classification. 24 h
Human experience

Repeated contact may cause a drying, solvent like action on the skin.

Components

Data obtained on components are summarized below:

tributyl phosphate

Harmful if swallowed.
Practically nontoxic after skin application in animal studies.
Slightly irritating to eyes (rabbit).
Highly irritating to skin (rabbit).
Produced no dermal sensitization (guinea pigs).
Repeated oral administration produced multiple systemic effects.
No delayed neurotoxicity was observed in animal models.
This material produced tumours in laboratory animals at dose levels that exceed the maximum tolerated dose.
The weight of the evidence indicates that this material is not mutagenic in in-vitro assays.

12. ECOLOGICAL INFORMATION

Solutia has not conducted environmental toxicity or biodegradation studies with this material.

<table>
<thead>
<tr>
<th>Components:</th>
<th>tributyl phosphate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fish</td>
<td>96 h LC50 Fathead minnow (Pimephales promelas) 6,4 mg/l</td>
</tr>
<tr>
<td></td>
<td>96 h LC50 Rainbow trout (Oncorhynchus mykiss) 11 mg/l</td>
</tr>
<tr>
<td>Algae</td>
<td>96 h EC50 Algae (Selenastrum capricornutum) 4,4 mg/l</td>
</tr>
<tr>
<td></td>
<td>72 h EC50 Algae (Selenastrum capricornutum) 4,8 mg/l</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Components:</th>
<th>tributyl phosphate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biodegradation</td>
<td>River Die-Away Primary degradation 56 %</td>
</tr>
<tr>
<td></td>
<td>Modified SCAS Primary degradation 96 %</td>
</tr>
</tbody>
</table>

13. DISPOSAL CONSIDERATIONS

Disposal considerations

Incineration, Recycle
Burn only in proper incinerator.
All local and national regulations should be followed.

14. TRANSPORT INFORMATION

ROAD/RAIL
15. REGULATORY INFORMATION

EC label

EU Dangerous Preparations Directive 1999/45/EC.

Xn - Harmful

R40 - Limited evidence of a carcinogenic effect.

S36/37 - Wear suitable protective clothing and gloves.

S51 - Use only in well-ventilated areas.

Contains:

tributyl phosphate

Other regulation

Germany - WGK (Wassergefährdungsklasse) : 2

16. OTHER INFORMATION

Prepared by the Solutia Hazard Communication Group.

Data sheets prepared or revised since June 2007 have been completed in accordance with the Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).


R-phrases

R22 - Harmful if swallowed.

R38 - Irritating to skin.

R40 - Limited evidence of a carcinogenic effect.

Number format: "," used as decimal separator.

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, Solutia Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability.
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