

## DIOCTYL- PHTHALATE (DOP)

### 1. Chemical product and company identification

<b>A. Product name</b>	: Dioctyl-phthalate (DOP)
<b>B. Chemical name</b>	: bis (2-ethylhexyl) phthalate
<b>Other means of identification</b>	: behp; 1, 2- benzenedicarboxylic acid, bis(2-ethylhexyl) ester; bis(2-ethylhexyl) -1,2- benzenedicarboxylate; bis (2-ethylhexyl) phthalate; bisoflex 81; bisoflex dop; compound 889; daf 68; dehp; di(2-ethylhexyl) orthophthalate; di(2-ethylhexyl) phthalate; dioctyl phthalate; di-sec-octyl phthalate; dop; ergoplast fdo; ethylhexyl phthalate; 2- ethylhexyl phthalate; eviplast 80; eviplast 8; fleximel; flexol dop; flexol plasticizer dop; good-rite gp 264; hatcol dop; hercoflex 260; kodaflex dop; mollan o; nci- c52733; nuoplaz dop; octoil; octyl phthalate; palatinol ah; phthalic acid dioctyl ester; pittsburgh px- 138; platinol ah; platinol dop; rc plasticizer dop; reomol dop; reomol d 79p; sicol 150; staflex dop; truflex dop; vestinol ah; vinicizer 80; witicizer 312; bis- (2-ethylhexyl) phthalate; di- (2-ethylhexyl) phthalate; 1,2-benzene dicarboxylic acid, [bis (2- ethylhexyl)] ester; phthalic acid, bis(2-ethylhexyl) ester; bis (2-ethylhexyl) phthalate; phthalic acid, bis( 2-ethylhexyl) ester; o- benzenedicarboxylic acid, dioctyl ester; dioctyl o-benzenedicarboxylate; ethylhexyl phthalate: celluflez dop; flexol do[; polycizer 162; px- 138; union carbide flexol 380; di-2- ethylhexyl phthalate
<b>Product type</b>	: Liquid
<b>C. Manufacturer / Supplier / Distributor Information</b>	
RAR Resin & Chemical Industries JLT 11th Floor, Jumeirah Lake Towers, P.O. Box: 47381, Dubai UAE	
Tel: +971 4 4356516 / +971 4 4356517	Email: info@rarresin.com
Fax: +971 4 4356518	Website: www.rarresin.com

### 2. HAZARDS IDENTIFICATION

<b>Classification of the substance or mixture</b>	: TOXIC TO REPRODUCTION [ Fertility] - Category 1B TOXIC TO REPRODUCTION [Unborn child]- Category 1B
<b>Hazards Pictograms</b>	: GHS label elements
<b>Signal Word</b>	: Danger
<b>Hazards statements</b>	: may damage fertility or the unborn child
<b>Precautionary statements</b>	
<b>Prevention</b>	: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.

#### DISCLAIMER

This information contained in the data sheet is to the best of our knowledge correct and up to date. Under well-defined conditions. Its accuracy or suitability under the actual conditions of any independent use is not guaranteed and must be determined by the user. All advice given about this product is given in good faith. Since as we have no control over conditions of substrate, manufacturer and seller cannot accept any liability in connection with the use of the product relative to coverage, performance, injury, or damage, unless we specify in writing to do so. The information in this data sheet is subject to change without prior notice and it is the user responsibility to ensure it is current. For further information and advice please contact RAR RESIN Technical Service Department.

**Response** : If exposed or concerned : Get medical attention.  
**Storage** : Store locked up.  
**Disposal** : Not applicable  
**Other hazards which do not result in classification** : Not available.

### 3. COMPOSITION AND INFORMATION ON INGREDIENTS

**Substance/ mixture** : Substance  
**Chemical Name** : bis (2-ethylhexyl) phthalate  
**Other means of identification** : behp; 1, 2- benzenedicarboxylic acid, bis(2-ethylhexyl) ester; bis(2-ethylhexyl) -1,2- benzenedicarboxylate; bis (2-ethylhexyl) phthalate; bisoflex 81; bisoflex dop; compound 889; daf 68; dehp; di(2-ethylhexyl) orthophthalate; di(2-ethylhexyl) phthalate; dioctyl phthalate; di-sec-octyl phthalate; dop; ergoplast fdo; ethylhexyl phthalate; 2- ethylhexyl phthalate; eviplast 80; eviplast 81; fleximel; flexol dop; flexol plasticizer dop; good-rite gp 264; hatcol dop; hercoflex 260; kodaflex dop; mollan o; nci- c52733; nuoplaz dop; octoil; octyl phthalate; palatinol ah; pthalic acid dioctyl ester; pittsburgh px- 138; platinol ah; platinol dop; rc plasticizer dop; reomol dop; reomol d 79p; sicol 150; staflex dop; truflex dop; vestinol ah; vinicizer 80; witicizer 312; bis- (2-ethylhexyl) phthalate; di- (2-ethylhexyl) phthalate; 1,2-benzene dicarboxylic acid, [bis(bis (2- ethylhexyl))] ester; phthalic acid, bis(2-ethylhexyl) ester; bis (2-ethylhexyl) phthalate; phthalic acid, bis( 2-ethylhexyl) ester; o-benzenedicarboxylic acid, dioctyl ester; dioctyl o-benzenedicarboxylate; ethylhexyl phthalate: celluflez dop; flexol do[; poly-cizer 162; px- 138; union carbide flexol 380; di-2- ethylhexylphthalate

**CAS number** : 117-81-7  
**EC number** : 204-211-0

CAS number	%	Ingredient name
117-81-7	> 99.5	bi(2-ethylhexyl) phthalate

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, If available, are listed in Section 8.

### 4. FIRST AID MEASURES

#### Description of necessary first aid measures

**Eye contact:** Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. get medical attention if irritation occurs.

**Inhalation:** Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention immediately. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

#### DISCLAIMER

This information contained in the data sheet is to the best of our knowledge correct and up to date. Under well-defined conditions. Its accuracy or suitability under the actual conditions of any independent use is not guaranteed and must be determined by the user. All advice given about this product is given in good faith. Since as we have no control over conditions of substrate, manufacturer and seller cannot accept any liability in connection with the use of the product relative to coverage, performance, injury, or damage, unless we specify in writing to do so. The information in this data sheet is subject to change without prior notice and it is the user responsibility to ensure it is current. For further information and advice please contact RAR RESIN Technical Service Department.

**Skin Contact:** Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**Ingestion:** Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

#### **MOST IMPORTANT SYMPTOMS/ EFFECTS, ACUTE AND DELAYED POTENTIAL ACUTE HEALTH EFFECTS**

**Eye contact:** No known significant effects or critical hazards.

**Inhalation:** No known significant effects or critical hazards.

**Skin contact:** No known significant effects or critical hazards.

**Ingestion:** No known significant effects or critical hazards.

#### **OVER-EXPOSURE SIGNS/SYMPTOMS**

**Eye contact:** No specific data

**Inhalation:** Adverse symptoms may include the following  
- reduced fetal weight  
- increase in fetal weight  
- skeletal malformations

**Skin contact:** Adverse symptoms may include the following  
- reduced fetal weight  
- increase in fetal weight  
- skeletal malformations

**Ingestion:** Adverse symptoms may include the following  
- reduced fetal weight  
- increase in fetal weight  
- skeletal malformations

#### **DISCLAIMER**

This information contained in the data sheet is to the best of our knowledge correct and up to date. Under well-defined conditions. Its accuracy or suitability under the actual conditions of any independent use is not guaranteed and must be determined by the user. All advice given about this product is given in good faith. Since as we have no control over conditions of substrate, manufacturer and seller cannot accept any liability in connection with the use of the product relative to coverage, performance, injury, or damage, unless we specify in writing to do so. The information in this data sheet is subject to change without prior notice and it is the user responsibility to ensure it is current. For further information and advice please contact RAR RESIN Technical Service Department.

## INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED, IF NECESSARY

- Notes to Physician:** Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments:** No specific treatment.
- Protection of first-aiders:** no action shall be taken involving any personal risk or without suitable training. if it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to- mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See Toxicological information (Section 11)

## 5. FIRE-FIGHTING MEASURES

### EXTINGUISHING MEDIA

- Suitable extinguishing media:** Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media:** None Known
- Specific hazards arising from the chemical:** In a fire or if heated, a pressure increase will occur and the container may burst.
- Hazardous thermal decomposition products:** Decomposition products may include the following materials  
- carbon dioxide  
- carbon monoxide
- Special protective actions for fire- fighters:** Promptly isolate the scene by removing the persons from the vicinity of the incident if there is fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire- fighters:** Fire- fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
- Remark:** Do not use water jet.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

- For non- emergency personnel:** No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate equipment.

#### DISCLAIMER

This information contained in the data sheet is to the best of our knowledge correct and up to date. Under well-defined conditions. Its accuracy or suitability under the actual conditions of any independent use is not guaranteed and must be determined by the user. All advice given about this product is given in good faith. Since as we have no control over conditions of substrate, manufacturer and seller cannot accept any liability in connection with the use of the product relative to coverage, performance, injury, or damage, unless we specify in writing to do so. The information in this data sheet is subject to change without prior notice and it is the user responsibility to ensure it is current. For further information and advice please contact RAR RESIN Technical Service Department.

**For emergency responders:** If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in “For non-emergency personnel”.

**Environmental precautions:** Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewere. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

## Methods and Materials for containment and cleaning up

**Small spill:** Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water in soluble, absorb with an inert dry material and place in an appropriate waste disposal container. Disposal container. Dispose of via a licensed waste disposal contractor.

**Large spill:** Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non- combustible, absorbent material e.g. sand, eart, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

Note: see section 1 for emergency contact information and section 13 for waste disposal.

## 7. HANDLING AND STORAGE

### Precautions for safe handling:

Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Avoid exposure during pregnancy. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

### Conditions for safe storage, including any incompatibility:

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well ventilated area, away from incompatible materials (see section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers.

## 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Control paramaters

Occupations exposure limits

Exposure limits

Ingredient name

ACGIH TLV (United States, 2/2010). Notes:  
1999 Adaptation.

bis(2- ethylhexyl) phthalate

TWA : 5 mg/m<sup>3</sup> 8 hour(s)

### DISCLAIMER

This information contained in the data sheet is to the best of our knowledge correct and up to date. Under well-defined conditions. Its accuracy or suitability under the actual conditions of any independent use is not guaranteed and must be determined by the user. All advice given about this product is given in good faith. Since as we have no control over conditions of substrate, manufacturer and seller cannot accept any liability in connection with the use of the product relative to coverage, performance, injury, or damage, unless we specify in writing to do so. The information in this data sheet is subject to change without prior notice and it is the user responsibility to ensure it is current. For further information and advice please contact RAR RESIN Technical Service Department.

ACGIH TLV ( United States,2/2010). notes:  
1999 Adoption  
TWAS: 5 mg/m3

bis (2-ethylhexyl) phthalate; DEHP

**Recommend monitoring procedures:** If this product contains ingredients with exposure limits, personal workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

**Appropriate engineering controls:** If user operations generate dust, fumes, gas, vapor, or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Environmental exposure controls:** Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

**Hygiene measures:** Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye / face protection:** Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. Recommended: full- face mask full- face mask.

### Skin protection

**Hand protection:** Chemical - resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. > 8 hours (breakthrough time) : butyl rubber, nitrile rubber, Viton®

**Body protection:** Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: chemical- resistant protective suit.

**Other skin protection:** Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection:** Use a proper fitted, air- purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: self- contained breathing apparatus ( SCBA)

#### DISCLAIMER

This information contained in the data sheet is to the best of our knowledge correct and up to date. Under well-defined conditions. Its accuracy or suitability under the actual conditions of any independent use is not guaranteed and must be determined by the user. All advice given about this product is given in good faith. Since as we have no control over conditions of substrate, manufacturer and seller cannot accept any liability in connection with the use of the product relative to coverage, performance, injury, or damage, unless we specify in writing to do so. The information in this data sheet is subject to change without prior notice and it is the user responsibility to ensure it is current. For further information and advice please contact RAR RESIN Technical Service Department.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### APPEARANCE

Physical state	: Liquid
Color	: Colorless
Odor	: Pleasant
Odor Threshold	: Not available
pH	: Not available
Melting point/ freezing point	: -46.1 °C (- 51 °F)
Boiling point	: 386.1 °C (727 °F)
Flash point	: Closed cup : 217. 87 °C ( 424.1) °F
Burning time	: Not applicable
Burning rate	: No applicable
Evaporation rate	: <0.005 (butyl acetate= 1)
Flammability (solid, gas)	: Not available
Lower and upper explosive (flammables) limits	: Not available
Vapor Measure	: 0.001 kPa (0.0075mmHg) [20 °C]
Vapor density	: 16 [ Air=1]
Relative density	: 0.9861
Solubility	: Insoluble inthe following materials : cold water
Partition coeffecient: noctano/ water	: 7.5
Auto- ignition temperature	: 390.55 °C (735 °F)
Decomposition temperature	: Not available
SADT	: Not available
Dynamic: 77 to 82 mPa s (77 to 82 cP)	: Viscosity

### 10. STABILITY AND REACTIVITY

Reactivity	: No specific test data to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur
Conditions to avoid	: No specific data
Incompatible materials	: No specific data
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

### 11. TOXICOLOGICAL INFORMATION

#### Information on toxicological effects

#### Acute toxicity

EXPOSURE	DOSE	SPECIES	RESULT	PRODUCT/ INGREDIENTS NAME
-	> 31 mL/kg	Rabbit	LD intraperitoneal	bis(2-ethylhexyl) phthalate
-	> 24500 mg/ kg	Rabbit	LD50 Dermal	
-	> 30000 mg/kg	Rat	LD50 Oral	
-	100 mg/kg	Monkey	TDL <sub>o</sub> Oral	

#### DISCLAIMER

This information contained in the data sheet is to the best of our knowledge correct and up to date. Under well-defined conditions. Its accuracy or suitability under the actual conditions of any independent use is not guaranteed and must be determined by the user. All advice given about this product is given in good faith. Since as we have no control over conditions of substrate, manufacturer and seller cannot accept any liability in connection with the use of the product relative to coverage, performance, injury, or damage, unless we specify in writing to do so. The information in this data sheet is subject to change without prior notice and it is the user responsibility to ensure it is current. For further information and advice please contact RAR RESIN Technical Service Department.

<b>Irritation / Corrosion</b>	: Not available.
<b>Sensitization</b>	: Not available.
<b>Mutagenicity</b>	: Not available.
<b>Carcinogenicity</b>	: Not available.
<b>Reproductive toxicity</b>	: Not available.
<b>Teratogenicity</b>	: Not available.
<b>Specific target organ toxicity (single exposure)</b>	: Not available.
<b>Specific target organ toxicity (repeated exposure)</b>	: Not available.
<b>Aspiration hazard</b>	: Not available.
<b>Information on the likely routes of exposure</b>	: Not available.
<b>Potential acute health effects</b>	
<b>Eye contact</b>	: No known significant effects or critical hazards.
<b>Inhalation</b>	: No known significant effects or critical hazards.
<b>Skin contact</b>	: No known significant effects or critical hazards.
<b>Ingestion</b>	: No known significant effects or critical hazards.
<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	
<b>Eye contact</b>	: No specific data.
<b>Inhalation</b>	: Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
<b>Skin contact</b>	: Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
<b>Ingestion</b>	: Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
<b>Delayed and immediate effects and also chronic effects from short and long term exposure</b>	
<b>Short term exposures</b>	
<b>Potential immediate effects</b>	: Not available.
<b>Potential delayed effects</b>	: Not available.
<b>Long term exposures</b>	
<b>Potential immediate effects</b>	: Not available.
<b>Potential delayed effects</b>	: Not available.
<b>Potential chronic health effects</b>	
<b>General</b>	: No known significant effects or critical hazards.
<b>Carcinogenicity</b>	: No known significant effects or critical hazards.
<b>Mutagenicity</b>	: No known significant effects or critical hazards.
<b>Teratogenicity</b>	: May damage the unborn child.
<b>Developmental effects</b>	: No known significant effects or critical hazards.
<b>Fertility effects</b>	: May damage fertility.
<b>Numerical measures of toxicity</b>	: Not available.
<b>Acute toxicity estimates</b>	

**DISCLAIMER**

This information contained in the data sheet is to the best of our knowledge correct and up to date. Under well-defined conditions. Its accuracy or suitability under the actual conditions of any independent use is not guaranteed and must be determined by the user. All advice given about this product is given in good faith. Since as we have no control over conditions of substrate, manufacturer and seller cannot accept any liability in connection with the use of the product relative to coverage, performance, injury, or damage, unless we specify in writing to do so. The information in this data sheet is subject to change without prior notice and it is the user responsibility to ensure it is current. For further information and advice please contact RAR RESIN Technical Service Department.

## 12. ECOLOGICAL INFORMATION

Toxicity Exposure	Species	Result	Product / ingredient name
48 hours	Daphnia - Daphnia - <24 hours	Acute EC50 2 mg/L Fresh water	bis(2-ethylhexyl) phthalate
96 hours	Fish - Gasterosteus aculeatus- 4 to 5 weeks	Acute EC50 > 300 ug/L Fresh water	
96 hours	Fish - Ictalurus punctatus- 3.1g	Acute EC50 > 300 ug/L Fresh water	

**Persistence and degradability** : Not available.

Bioaccumulative potential	BCF	LogP <sub>ow</sub>	Product / ingredient name
Potential high	-	7.5	bis(2-ethylhexyl) phthalate; DEHP
high	-	7.5	bis(2-ethylhexyl) phthalate

**Mobility**  
**Soil / water partition coefficient (K<sub>oc</sub>)** : Not available.

**Other adverse effects or critical hazards.** : Other adverse effects

## 13. DISPOSAL CONSIDERATIONS

**Disposal methods:** The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should all at times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some products residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## 14. TRANSPORT INFORMATION

	IATA	IMDG	UN
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class (es)	-	-	-
Packing group	-	-	-
Environmental hazards	No	No	No
Special precautions for user	Not available	Not available	Not available
Additional Information	-	-	-

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

### DISCLAIMER

This information contained in the data sheet is to the best of our knowledge correct and up to date. Under well-defined conditions. Its accuracy or suitability under the actual conditions of any independent use is not guaranteed and must be determined by the user. All advice given about this product is given in good faith. Since as we have no control over conditions of substrate, manufacturer and seller cannot accept any liability in connection with the use of the product relative to coverage, performance, injury, or damage, unless we specify in writing to do so. The information in this data sheet is subject to change without prior notice and it is the user responsibility to ensure it is current. For further information and advice please contact RAR RESIN Technical Service Department.

## 15. REGULATORY INFORMATION

**Safety, health and environmental regulations specific for the product:**

No known specific national and / or regional regulations applicable to this product (including its ingredients).

## 16. OTHER INFORMATION

<b>Date of printing</b>	11/18/2011
<b>Date of issue/Date of revision</b>	11/18/2011
<b>Date of previous issue</b>	No previous validation
<b>Version</b>	1
<b>Key to abbreviations</b>	ADN/ADNR = European Provisions concerning the International Carriage of Dangerous Goods by Road ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Maritime Dangerous Goods LogPow = logarithm of the octanol / water partition coefficient MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) RID = The regulations concerning the International Carriage of Dangerous Goods by Rail UN = United Nations Not available

**Indicates information that has changed from previously issued version.**

The information contained in the Safety Data Sheet is at the date of its issuance to the best of our knowledge correct according to the data available to us. The information is meant as a guideline for safe use, handling, disposal, storage and transport of products and does not imply any warranty (not implied nor explicitly) or specification. The Supplier shall to the extent permitted by law not be liable for any error or incorrectness in the information contained in this Safety Data Sheet. The information relates exclusively to the specified products, which may not be suitable for combination with other materials or use in processes other than those specifically described here.