

## SAFETY DATA SHEET

SDS Compliant with regulation (EC) No 1907/2006 – No 453/2010.

# CHALLENGE REDSOLVE

### SECTION 1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1 Product Identifier

Challenge Redsolve

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Solvent

#### 1.3 Details of the supplier of the data sheet

Darcy Products Ltd, as above.

#### 1.4 Emergency telephone number

Nearest anti-poison centre or Guy's Hospital Poisons Unit, LONDON SE14 SER.

During normal opening times: 01732 762338

### SECTION 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

In compliance with EC regulation No. 1272/2008 and its amendments.

- Flammable liquid, category 3.
- Eye irritation, category 2.
- STOT SE, Category 3.
- Asp. Tox. Category 1.

In compliance with directives 67/548/EEC, 1999/45/EC and their amendments.

- Irritating to eyes.
- Flammable.
- Harmful: may cause lung damage if swallowed.
- Vapours may cause drowsiness and dizziness.
- Repeated exposure may cause skin dryness or cracking.

#### 2.2 Label Elements

In compliance with EC regulation No. 1272/2008 and its amendments.

Pictogram(s):



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**Signal Word (s):**

- DANGER

**Hazard Statement(s):**

- H319 – Causes serious eye irritation.
- H226 – Flammable liquid and vapour.
- H304 – May be fatal if swallowed and enters airways.
- H336 – May cause drowsiness or dizziness.

**Precautionary Statement(s):**

- P102 – Keep out of reach of children.
- P210 – Keep away from heat/sparks/open flames/hot surfaces. — No smoking.
- P280 – Wear protective gloves/protective clothing/eye protection/face protection.
- P260 – Do not breathe dust/fume/gas/mist/vapours/spray.
- P301 + P312 – If swallowed: Call a poison centre or doctor/physician if you feel unwell.
- P305 + P351 + P338 – If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P331 – Do NOT induce vomiting.

**Supplemental Hazard Statement(s):**

- EUH 066 – Repeated exposure may cause skin dryness or cracking.

In compliance with directives 67/548/EEC, 1999/45/EC and their amendments.

**Hazard Symbol(s):**



**R-Phrase(s):**

- R10 Flammable
- R36 Irritating to eyes.
- R65 Harmful: may cause lung damage if swallowed.
- R66 Repeated exposure may cause skin dryness or cracking.
- R67 Vapours may cause drowsiness and dizziness.

**S-Phrase(s):**

- S2 Keep out of the reach of children.
- S16 Keep away from sources of ignition.
- S23 Do not breathe vapour.
- S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S37 Wear suitable gloves.
- S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible.)

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### SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

#### Composition:

| Component  | CAS        | EINECS    | CHIP CLASS.                              | CLP CLASS.  | %     |
|--|------------|-----------|--|---|-------|
| Hydrocarbons, C9-12, n-alkanes, isoalkanes, cyclics, (2-25%) aromatics | 64742-82-1 | 919-446-0 | F; R10, R67. R66.<br>Xn; R65, N; R51/53. | Flam. Liq. 3: H226. Asp.<br>Tox. 1: H304. STOT SE 3:<br>H336. STOT RE 1: H372.<br>Aquatic Chronic 2: H411 | >50%  |
| 1-methoxy-2-propanol   | 107-98-2   | 203-539-1 | R10, R67.                                | Flam. Liq. 3: H226. STOT<br>SE 3: H336.   | 1-10% |
| Alcohols C9 – 11 branched and linear, ethoxylated 5-20 EO              | 68439-46-3 | N/A       | Xn; R22, Xi; R41                         | Acute Tox. 4: H302. Eye<br>Dam. 1: H318.  | 1-10% |

See Section 16 for the full text of the R-phrases and H statements declared above.

### SECTION 4. FIRST AID MEASURES

#### 4.1 Description of first aid measures

##### Notes to the physician:

No recommendation given, but first aid may still be required in case of accidental exposure, inhalation or ingestion of this chemical. If in doubt, get medical attention promptly.

##### In the event of exposure by inhalation:

Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. If unconscious place in recovery position. Call a physician immediately.

##### In the event of splashes or contact with eyes:

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

##### In the event of splashes or contact with skin:

Remove affected person from source of contamination. Remove contaminated clothing. Wash the skin immediately with soap and water. Get medical attention if any discomfort continues.

##### In the event of swallowing:

Do not induce vomiting. Never make an unconscious person vomit or drink fluids. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Drink plenty of water. Get medical attention immediately! Provide rest, warmth and fresh air.

#### 4.2 Most important symptoms and effects, both acute and delayed

- Vapours may cause drowsiness and dizziness. Vapours inhaled in high concentrations have a narcotic effect on the central nervous system.

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- May cause stomach pain or vomiting. The product may enter the lungs due to its low viscosity, and lead to the rapid development of very serious inhalation pulmonary lesions (medical survey during 48 hours).
- Eye irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blurred vision
- Skin irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blisters.
- Defatting dermatitis signs and symptoms may include a burning sensation and/or a dried/cracked appearance.

#### **4.3 indication of any immediate medical attention and special treatment needed**

- No recommendation given, but first aid may still be required in case of accidental exposure, inhalation or ingestion of this chemical. If in doubt, get medical attention.
- Treat symptomatically.

### **SECTION 5. FIREFIGHTING MEASURES**

#### **5.1 Extinguishing media**

- Fire can be extinguished using: Foam. Dry chemicals, sand, dolomite etc.
- Do not use water jet as an extinguisher, as this will spread the fire.

#### **5.2 Special hazards arising from the substance or mixture**

- The vapour may be invisible, heavier than air and spread along ground.
- Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Hydrocarbons. Aldehydes.
- The product is flammable, and heating may generate vapours which may form explosive vapour/air mixtures. In case of fire, toxic gases may be formed.

#### **5.3 Advice for firefighters**

- In the event of fire, wear self-contained breathing apparatus. Wear appropriate body protection (full protective suit)
- Cool closed containers exposed to fire with water spray. Heating will cause a pressure rise - with risk of bursting.

### **SECTION 6. ACCIDENTAL RELEASE MEASURES**

#### **6.1. Personal precautions, protective equipment and emergency procedures**

- Consult the safety measures listed under headings 7 and 8.

##### **For non fire-fighters**

- If a large quantity has been spilt, evacuate all personnel and only allow intervention by trained operators equipped with safety apparatus.

##### **For fire-fighters**

- Fire-fighters will be equipped with suitable personal protective equipment (See section 8).

#### **6.2. Environmental precautions**

- Collect as much as possible in a clean container for (preferable) reuse or disposal.

#### **6.3. Methods and material for containment and cleaning up**

- Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

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#### 6.4. Reference to other sections

- No data available.

### SECTION 7. HANDLING AND STORAGE

- Requirements relating to storage premises apply to all facilities where the mixture is handled.
- Individuals with a history of skin sensitisation should not, under any circumstance, handle this mixture.

#### 7.1. Precautions for safe handling

- Always wash hands after handling.
- Remove and wash contaminated clothing before re-using.

#### Recommended equipment and procedures:

- For personal protection, see section 8.
- Observe precautions stated on label and also industrial safety regulations
- Avoid skin and eye contact with this mixture.

#### Prohibited equipment and procedures:

- No smoking, eating or drinking in areas where the mixture is used.

#### 7.2. Conditions for safe storage, including any incompatibilities

- Store between 4°C and 25°C in a dry, well ventilated place.
- Combustible liquid. Keep away from sources of ignition - No smoking. The vapour may be invisible, heavier than air and spread along ground. Vapours may form explosive mixtures with air. Take measures to prevent the build-up of electrostatic charge.

#### Storage

- Keep the container tightly closed in a dry, well-ventilated place

#### Packaging

- Always keep in packaging made of an identical material to the original

#### 7.3. Specific end use(s)

- The identified uses for this product are detailed in Section 1.2.

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## SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1. Control parameters

#### Occupational exposure limits:

| Component  | List   | Type | Value    |
|--|--------|------|----------|
| Hydrocarbons, C9-12, n-alkanes, isoalkanes, cyclics, (2-25%) aromatics | UK WEL | TWA  | 350mg/m3 |
| 1-methoxy-2-propanol   | WEL    | STEL | 568mg/m3 |
| 1-methoxy-2-propanol   | ELV    | TWA  | 375mg/m3 |

### 8.2. Exposure controls

#### Personal protection measures, such as personal protective equipment

##### Eye / face protection

- Use chemical goggles. Chemical goggles should be consistent with EN 166 or equivalent.

##### Skin Protection:

- When prolonged or frequently repeated contact could occur, use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full-body suit will depend on the task.

##### Hand protection

- Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN374.

##### Respiratory protection

- Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process.
- In case of insufficient ventilation, wear suitable respiratory equipment.
- Use respirator with appropriate filter if vapours or aerosol are released.
- Recommended Filter type: A.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

#### General information:

|                                     |                        |
|-------------------------------------|------------------------|
| Physical state:                     | Liquid                 |
| Colour                              | Clear, pale yellow.    |
| Odour                               | Petrochemical/solvent. |
| PH of the substance or preparation: | N/A – Non-aqueous.     |
| Flash point interval:               | 39 Deg C               |

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|                          |   |
|--------------------------|---|
| <b>Vapour pressure:</b>  | not determined.                                 |
| <b>Relative Density:</b> | 0.81  |
| <b>Water solubility:</b> | Insoluble in water Soluble in: Organic solvents |

## 9.2. Other information

- No data available.

## SECTION 10. STABILITY AND REACTIVITY

### 10.1. Reactivity

- No dangerous reaction known under conditions of normal use.

### 10.2. Chemical stability

- This mixture is stable under the recommended handling and storage conditions in section 7.

### 10.3. Possibility of hazardous reactions

- Exothermic reaction with strong acids. Incompatible with oxidizing agents.

### 10.4. Conditions to avoid

- Heat, flames or sparks.
- 10. 5. Incompatible materials
- Keep away from: Strong oxidising agents, strong acids.

### 10.5. Hazardous decomposition products

- Under fire conditions: Carbon oxides.

## SECTION 11. TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

#### Mixture:

- No toxicological data available for the mixture.

#### Skin corrosion/skin irritation:

- Causes skin irritation.

#### Serious damage to eyes/eye irritation:

- Not determined.

#### Respiratory or skin sensitisation:

- Not determined.

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### Component Toxicology:

| Component  | Test                | Type                    | Value       |
|--|---------------------|-------------------------|-------------|
| Hydrocarbons, C9-12, n-alkanes, isoalkanes, cyclics, (2-25%) aromatics | Acute Oral Toxicity | LD50, Rat-Male, Female  | >1500mg/kg  |
|  | Skin Absorption     | LD50, Rat               | >3400mg/kg  |
|  | Inhalation          | LC50, 4 h, Vapours, Rat | >13100mg/kg |
| 1-methoxy-2-propanol   | Acute Oral Toxicity | LD50, Rat-Male, Female  | 5,200mg/kg  |
| Alcohols C9 – 11 branched and linear, ethoxylated 5-20 EO              | Acute Oral Toxicity | LD50, Rat-Male, Female  | >1,200mg/kg |

## SECTION 12. ECOLOGICAL INFORMATION

### 12.1. Toxicity

#### Component Ecotoxicology:

| Component  | Test    | Type     | Value     |
|--|---------|----------|-----------|
| Hydrocarbons, C9-12, n-alkanes, isoalkanes, cyclics, (2-25%) aromatics | Fish    | 96H LC50 | <30mg/l   |
|  | Daphnia | 48H EC50 | <22mg/l   |
|  | Algae   | 72H EC50 | <10mg/l   |
| 1-methoxy-2-propanol   | Fish    | 72H EC50 | >4600mg/l |
|  | Daphnia | 48H EC50 | 23300mg/l |
|  | Algae   | 72H EC50 | >1000mg/l |

### 12.2. Persistence and degradability

- Readily biodegradable. Oxidises rapidly by photochemical reactions in air.
- The surfactants contained in this preparation comply with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents

### 12.3. Bioaccumulative potential

- No data available.

### 12.4. Mobility in soil

- No data available.

### 12.5. Results of PBT and vPvB assessment

- No data available.

### 12.6. Other adverse effects

- No know significant effects or critical hazards

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## SECTION 13. DISPOSAL CONSIDERATIONS

- Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

### 13.1. Waste treatment methods

#### Waste:

- Must be disposed of in accordance with local and national regulations.

#### Soiled packaging:

- Dispose of as normal industrial waste. If empty containers are recycled or disposed of, the receiver must be informed about possible hazards. NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

## SECTION 14. TRANSPORT INFORMATION

### 14.1 UN Number

- UN Number: 1993

### 14.2 UN proper shipping name

- Shipping name: FLAMMABLE LIQUID N.O.S.

### 14.3 Transport hazard class(es)

- Transport class: 3

### 14.4 Packing group

- Packing group: III

### 14.5 Environmental hazards

- Environmentally Hazardous: No
- Marine Pollutant: No

## SECTION 15. REGULATORY INFORMATION

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### Particular provisions:

- No data available.

### 15.2. Chemical safety assessment

- No data available.

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## SECTION 16. OTHER INFORMATION

- Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.
- It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.
- The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.
- To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein
- Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist

### Full Text of abbreviated H Statements:

H226 – Flammable liquid and vapour.  
H302 – Harmful if swallowed.  
H304 – May be fatal if swallowed and enters airways.  
H318 – Causes serious eye damage.  
H336 – May cause drowsiness or dizziness.  
H372 – Causes damage to organs through prolonged or repeated exposure.  
H411 – Toxic to aquatic life with long lasting effects.  
EUH 066 – Repeated exposure may cause skin dryness or cracking.

### Full Text of abbreviated R-Phrases:

R10 – Flammable.  
R22 – Harmful if swallowed.  
R41 – Risk of serious damage to the eyes.  
R51/53 – Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R65 – Harmful: may cause lung damage if swallowed.  
R66 – Repeated exposure may cause skin dryness or cracking.  
R67 – Vapours may cause drowsiness and dizziness

**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.

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