

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 11/24/2011

Reviewed on 11/24/2011

## 1 Identification of the substance/mixture and of the company/undertaking

- **Product identifier**
- **Trade name: Derval Energy**
- **Application of the substance / the preparation**  
Highly concentrated wash-power booster for removing oil and grease stains from textiles. Effective at washing temperatures of 40 – 60 °C.
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
- **Manufacturer:**  
Chemische Fabrik Kreussler & Co. GmbH  
Postfach 120454  
D-65082 Wiesbaden
- **Supplier:**  
Kreussler Inc., 8426 Sunstate Street, Tampa, FL 33634,  
Phone 813-884-1499, Fax 813-884-1599,  
Internet: www.kreussler.com, e-mail: office-tampa@kreussler.com
- **Information department:**  
Abteilung TQM  
Herr Vogel  
+49 (0) 611 9271-175  
Kurt.Vogel@kreussler.com
- **Emergency telephone number:** +49 (0) 611 9271-0

## \* 2 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

### · **Dangerous components:**

	Alcohols C13-C15 branched and linear, ethoxylated	Xn R22; Xi R41	30-50%
106232-83-1	Aliphatic alcohol, C13-15, predominantly linear, ethoxylated	Xi R41; N R50	15-30%
69227-21-0	alcohols C12 – C18 ethoxylated, propoxylated	Xi R38	5.0-15%
67-63-0	propan-2-ol	Xi R36; F R11 R67	1.0-5.0%

- **Additional information:** For the wording of the listed risk phrases refer to section 16.

## 3 Hazards identification

- **Classification of the substance or mixture**
  - **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**  
Harmful  
Harmful if swallowed.  
.....  
Irritant  
Risk of serious damage to eyes.
  - **Information concerning particular hazards for human and environment:**  
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
  - **Classification system:**  
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.
- 
- **Label elements**
  - **Labelling according to EU guidelines:**  
The product has been classified and marked in accordance with directives on hazardous materials.

(Contd. on page 2)

— USA —

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 11/24/2011

Reviewed on 11/24/2011

Trade name: Derval Energy

(Contd. of page 1)

· **Code letter and hazard designation of product:**



Xn Harmful

· **Hazard-determining components of labelling:**

Alcohols C13-C15 branched and linear, ethoxylated

· **Risk phrases:**

Harmful if swallowed.

Risk of serious damage to eyes.

· **Safety phrases:**

Avoid contact with eyes.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Wear suitable gloves and eye/face protection.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 2

Fire = 2

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 2

Fire = 2

Reactivity = 0

· **Other hazards**

The product does not contain any organic halogen compounds (AOX), nitrates, heavy metal compounds or formaldehydes.

## 4 First aid measures

- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**  
Rinse with warm water.  
If skin irritation continues, consult a doctor.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Immediately call a doctor.

## 5 Firefighting measures

- **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture** Product itself does not burn.
- **Protective equipment:** Use normal protective clothing.
- **Additional information**  
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Dilute with plenty of water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

(Contd. on page 3)

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 11/24/2011

Reviewed on 11/24/2011

Trade name: Derval Energy

(Contd. of page 2)

Dispose contaminated material as waste according to item 13.

- **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

- **Components with limit values that require monitoring at the workplace:**

### 67-63-0 propan-2-ol (1.0-5.0%)

PEL	980 mg/m <sup>3</sup> , 400 ppm
REL	Short-term value: 1225 mg/m <sup>3</sup> , 500 ppm Long-term value: 980 mg/m <sup>3</sup> , 400 ppm
TLV	Short-term value: 984 mg/m <sup>3</sup> , 400 ppm Long-term value: 492 mg/m <sup>3</sup> , 200 ppm
BEI	

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Do not eat, drink, smoke or sniff while working.  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes.
- **Breathing equipment:** Not required.
- **Protection of hands:**



Protective gloves

- **Material of gloves**  
PVC or PE gloves  
Recommended thickness of the material:  $\geq 0.4$  mm
- **Not suitable are gloves made of the following materials:**  
Leather gloves  
Strong gloves
- **Eye protection:**



Tightly sealed goggles

- **Body protection:** Protective work clothing

(Contd. on page 4)

— USA —

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 11/24/2011

Reviewed on 11/24/2011

Trade name: Derval Energy

(Contd. of page 3)

## 9 Physical and chemical properties

· <b>General Information</b>	
· <b>Appearance:</b>	
Form:	Fluid
Color:	Colorless
· <b>Odor:</b>	Product specific
· <b>pH-value at 20°C (68 °F):</b>	8.9
· <b>Change in condition</b>	
Melting point/Melting range: Undetermined.	
Boiling point/Boiling range: Undetermined.	
· <b>Flash point:</b>	69°C (156 °F)
· <b>Auto igniting:</b>	Product is not selfigniting.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Density at 20°C (68 °F):</b>	0.96 g/cm <sup>3</sup> (8.011 lbs/gal)
· <b>Solubility in / Miscibility with Water:</b>	Partly miscible.
· <b>Viscosity:</b>	
Dynamic at 20°C (68 °F):	105 mPas
· <b>Solvent content:</b>	
Organic solvents:	3.5 %
· <b>Other information</b>	No further relevant information available.

## 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

- **Acute toxicity:**

· <b>LD/LC50 values that are relevant for classification:</b>		
<b>Alcohols C13-C15 branched and linear, ethoxylated</b>		
Oral	LD-50	>2000 mg/kg (rat)
<b>106232-83-1 Aliphatic alcohol, C13-15, predominantly linear, ethoxylated</b>		
Oral	LD-50	>2000 mg/kg (rat)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Strong irritant with the danger of severe eye injury.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Harmful  
Irritant

(Contd. on page 5)

— USA —

# Material Safety Data Sheet

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Printing date 11/24/2011

Reviewed on 11/24/2011

Trade name: Derval Energy

(Contd. of page 4)

## 12 Ecological information

### · Aquatic toxicity:

#### Alcohols C13-C15 branched and linear, ethoxylated

EC-50 48h	0.1-1 mg/l (Daphnia magna)
EC-50 72h	0.1-1 mg/l (Scenedesmus subspicatus)
LC-50 96h	1-10 mg/l (Brachydanio rerio)

#### 106232-83-1 Aliphatic alcohol, C13-15, predominantly linear, ethoxylated

EC-50	0.1-1 mg/l (Scenedesmus subspicatus)
LC-50 96h	1-10 mg/l (Brachydanio rerio)

- **Persistence and degradability** biodegradable
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Additional ecological information:**
- **General notes:**

The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

The product may not be released into the environment without control.

## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:** Dispose of in accordance with local, state, and federal Regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

## \* 14 Transport information

- |  |                 |
|--|-----------------|
| · <b>UN-Number</b>   |                 |
| · <b>DOT, ADR, ADN, IMDG, IATA</b>   | Void            |
| · <b>UN proper shipping name</b>   |                 |
| · <b>DOT, ADR, ADN, IMDG, IATA</b>   | Void            |
| · <b>Transport hazard class(es)</b>  |                 |
| · <b>DOT, ADR, ADN, IMDG, IATA</b>   |                 |
| · <b>Class</b>   | Void            |
| · <b>Packing group</b>   |                 |
| · <b>DOT, ADR, IMDG, IATA</b>  | Void            |
| · <b>Environmental hazards:</b>  |                 |
| · <b>Marine pollutant:</b>   | No              |
| · <b>Special precautions for user</b>  | Not applicable. |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable. |

(Contd. on page 6)

— USA —

# Material Safety Data Sheet

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Printing date 11/24/2011

Reviewed on 11/24/2011

Trade name: Derval Energy

(Contd. of page 5)

## 15 Regulatory information

### · Sara

#### · Section 355 (extremely hazardous substances):

None of the ingredient is listed.

#### · Section 313 (Specific toxic chemical listings):

67-63-0 propan-2-ol

#### · TSCA (Toxic Substances Control Act):

106232-83-1 Aliphatic alcohol, C13-15, predominantly linear, ethoxylated

69227-21-0 alcohols C12 – C18 ethoxylated, propoxylated

2425-77-6 2-Hexyldecan-1-ol

67-63-0 propan-2-ol

7732-18-5 water, distilled, conductivity or of similar purity

#### · Proposition 65

##### · Chemicals known to cause cancer:

None of the ingredients is listed.

##### · Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

##### · Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

##### · Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

#### · Cancerogenity categories

##### · EPA (Environmental Protection Agency)

None of the ingredients is listed.

##### · IARC (International Agency for Research on Cancer)

67-63-0 propan-2-ol

3

##### · NTP (National Toxicology Program)

None of the ingredients is listed.

##### · TLV (Threshold Limit Value established by ACGIH)

67-63-0 propan-2-ol

A4

##### · MAK (German Maximum Workplace Concentration)

None of the ingredients is listed.

##### · NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

##### · OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

#### · Canadian Substances Listings:

##### · Canadian Domestic Substances List (DSL):

Alcohols C13-C15 branched and linear, ethoxylated

106232-83-1 Aliphatic alcohol, C13-15, predominantly linear, ethoxylated

69227-21-0 alcohols C12 – C18 ethoxylated, propoxylated

2425-77-6 2-Hexyldecan-1-ol

67-63-0 propan-2-ol

##### · Canadian Ingredient disclosure list (limit 0.1%)

All ingredients are listed.

(Contd. on page 7)

— USA —

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 11/24/2011

Reviewed on 11/24/2011

Trade name: Derval Energy

(Contd. of page 6)

· <b>Canadian Ingredient disclosure list (limit 1%)</b>	
67-63-0	propan-2-ol

· **Product related hazard informations:**

The product has been classified and marked in accordance with directives on hazardous materials.

· **Hazard symbols:**

Xn Harmful

· **Hazard-determining components of labelling:**

Alcohols C13-C15 branched and linear, ethoxylated

· **Risk phrases:**

Harmful if swallowed.

Risk of serious damage to eyes.

· **Safety phrases:**

Avoid contact with eyes.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Wear suitable gloves and eye/face protection.

## 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

The information of Items 4 through 8 and 10 through 12 partially refers not to the use and the proper application of the product (see Directions for Use/Product Information) but to the release of larger quantities in the case of accidents and irregularities.

The information exclusively describes the safety requirements of the product(s) and is based on the present state of our experience.

Non-ionic tensides can have varying characteristics and classifications despite same CAS-No.

· **Department issuing MSDS:**

Abteilung TQM

Herr Vogel

+49 (0) 611/9271-175

· **Contact:** Herr Vogel· **\* Data compared to the previous version altered.**

— USA —