

Safety Data Sheet

acc. to OSHA HCS


Printing date 02/23/2015

Reviewed on 02/23/2015

* 1 Identification

- **Product identifier**
- **Trade name:** Derval Energy
- **Article number:** 2186
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture**
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., 6103 Johns Road Suit 7, 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 Heiko Schmidt
+49 (0) 611 9271-144
Heiko.Schmidt@kreussler.com
- **Emergency telephone number:** +49 (0) 611 9271-0

* 2 Hazard(s) identification

- **Classification of the substance or mixture**
Eye Dam. 1 H318 Causes serious eye damage.
Skin Irrit. 2 H315 Causes skin irritation.
Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.
- **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**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**

GHS05
- **Signal word** Danger
- **Hazard statements**
Causes skin irritation.
Causes serious eye damage.

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Harmful to aquatic life with long lasting effects.

- **Precautionary statements**

Wear protective gloves / eye protection.

Avoid release to the environment.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

If on skin: Wash with plenty of water.

- **Classification system:**

- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**

HEALTH	2	Health = 2
FIRE	2	Fire = 2
REACTIVITY	0	Reactivity = 0

- **Other hazards**

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

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

* 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**

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

- **Dangerous components:**

157627-86-6	Alcohols C13-C15 branched and linear, ethoxylated	Xn R22; Xi R41	30-50%
157627-86-6	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.

4 First-aid measures

- **Description of 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.

- **Information for doctor:**

- **Most important symptoms and effects, both acute and delayed**

No further relevant information available.

- **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

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* 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** Product itself does not burn.
- **Advice for firefighters**
- **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**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Reference to other sections**
No dangerous substances are released.
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.
- **Conditions for safe storage, including any incompatibilities**
- **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.
- **Control parameters**

· Components with limit values that require monitoring at the workplace:

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

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

· Ingredients with biological limit values:

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

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BEI	40 mg/L Medium: urine Time: end of shift at end of workweek Parameter: Acetone (background, nonspecific)
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· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

Do not eat, drink, smoke or sniff while working.

Avoid contact with the eyes and skin.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

· **Protection of hands:**



Protective gloves

· **Material of gloves**

PVC or PE gloves

Recommended thickness of the material: ≥ 0.4 mm

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Not suitable are gloves made of the following materials:**

Leather gloves

Strong gloves

· **Eye protection:**



Tightly sealed goggles

· **Body protection:** Protective work clothing

* 9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:	Fluid
Color:	Colorless
Odor:	Product specific

· **pH-value at 20 °C (68 °F):** 8.9

· **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: Undetermined.

· **Flash point:** 69 °C (156 °F) (ASTMD93(PMCC))

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Vapor pressure:** Not determined.

· **Density at 20 °C (68 °F):** 0.96 g/cm³ (8.011 lbs/gal)

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· Solubility in / Miscibility with Water:	Partly miscible.
· Viscosity:	
Dynamic at 20 °C (68 °F):	105 mPas
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	3.5 %
· Other information	No further relevant information available.

* 10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

* 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· LD/LC50 values that are relevant for classification:		
157627-86-6 Alcohols C13-C15 branched and linear, ethoxylated		
Oral	LD-50	>2000 mg/kg (rat)
157627-86-6 Aliphatic alcohol, C13-15, predominantly linear, ethoxylated		
Oral	LD-50	>2000 mg/kg (rat)
	EC-10 16 h	> 10000 mg/L (Pseudomonas putida)
69227-21-0 alcohols C12 – C18 ethoxylated, propoxylated		
Oral	LD-50	>2000 mg/kg (rat)
67-63-0 propan-2-ol		
Oral	LD-50	5030 mg/kg (rabbit) 3570 mg/kg (rat)
Dermal	LD-50	12800 mg/kg (rat)
Inhalative	LC-50/4 h	27.2 mg/m ³ (mouse) 72.6 mg/m ³ (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
- **Carcinogenic categories**

· IARC (International Agency for Research on Cancer)		
67-63-0	propan-2-ol	3

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· NTP (National Toxicology Program)
None of the ingredients is listed.
· OSHA-Ca (Occupational Safety & Health Administration)
None of the ingredients is listed.

* 12 Ecological information

- **Toxicity**

- **Aquatic toxicity:**

157627-86-6 Alcohols C13-C15 branched and linear, ethoxylated	
EC-10	>1000 mg/L (Belebtschlamm)
EC-50 48h	1-10 mg/l (Daphnia magna) (Literaturangabe)
EC-50 72h	1 - 10 mg/l (Scenedesmus subspicatus) (Literaturangabe)
LC-50 96h	1-10 mg/l (Brachydanio rerio)
157627-86-6 Aliphatic alcohol, C13-15, predominantly linear, ethoxylated	
EC-50 48h	0.1 - 1 mg/l (aquatische Invertebraten)
EC-50 72h	0.1-1 mg/l (Scenedesmus subspicatus)
LC-50 96h	1-10 mg/l (Brachydanio rerio)
69227-21-0 alcohols C12 – C18 ethoxylated, propoxylated	
LC-50 96h	1-10 mg/l (Leuciscus idus)
67-63-0 propan-2-ol	
EC-10 (17 h)	5175 mg/l (Pseudomonas putida)
EC-50	>1000 mg/l (Belebtschlamm) (Atmungshemmung des Belebtschlamm)
EC-50 48h	2285 mg/l (Daphnia magna)
EC-50 72h	>1000 mg/l (Desmodesmus subspicatus)
ErC-50 72h	> 100 mg/l (Scenedesmus subspicatus)
LC-50 48 h	> 100 mg/L (Leuciscus idus)
LC-50 96h	1400 mg/l (Lepomis macrochirus) 9640 mg/l (Pimephales promelas)

- **Persistence and degradability** biodegradable

- **Behavior in environmental systems:**

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** 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.

Do not allow product to reach ground water, water course or sewage system.

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

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**

- **Recommendation:** Dispose of in accordance with local, state, and federal Regulations.

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- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

* 14 Transport information

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

* 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **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):	All ingredients are listed.
· 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.
· Carcinogenity categories	
· EPA (Environmental Protection Agency)	None of the ingredients is listed.
· TLV (Threshold Limit Value established by ACGIH)	
67-63-0 propan-2-ol	A4

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<ul style="list-style-type: none"> · MAK (German Maximum Workplace Concentration)

None of the ingredients is listed.

<ul style="list-style-type: none"> · NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

<ul style="list-style-type: none"> · Canadien Substances Listings:
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<ul style="list-style-type: none"> · Canadien Domestic Substances List (DSL):

All ingredients are listed.

<ul style="list-style-type: none"> · Canadien Ingredient disclosure list (limit 0.1%)

All ingredients are listed.

<ul style="list-style-type: none"> · Canadien Ingredient disclosure list (limit 1%)

67-63-0 propan-2-ol

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS05

- **Signal word** Danger

- **Hazard statements**

Causes skin irritation.

Causes serious eye damage.

Harmful to aquatic life with long lasting effects.

- **Precautionary statements**

Wear protective gloves / eye protection.

Avoid release to the environment.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

If on skin: Wash with plenty of water.

- **National regulations:**

- **Technical instructions (air):**

Class	Share in %
NK	1,0-5,0

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

* 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 SDS:**

Department TQM

Herr Heiko Schmidt

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- **Contact:** Herr Heiko Schmidt

- **Date of preparation / last revision** 02/23/2015 / 2

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· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

· * Data compared to the previous version altered.

USA
