

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/20/2013

Reviewed on 06/20/2013

* 1 Identification

- **Product identifier**
- **Trade name: Derval Solo**
- **Article number:** 2284
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the preparation**
Liquid one-shot detergent concentrate for white and coloured cottons and mixed fibres.
- **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 Vogel
+49 (0) 611 9271-175
Kurt.Vogel@kreussler.com
- **Emergency telephone number:** +49 (0) 611 9271-0

2 Hazard(s) identification

- **Classification of the substance or mixture**
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
Corrosive
Causes severe burns.
- **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.
- **Code letter and hazard designation of product:**



C Corrosive

- **Hazard-determining components of labeling:**
sodium hydroxide
- **Risk phrases:**
Causes severe burns.
- **Safety phrases:**
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap.
Wear suitable gloves and eye/face protection.

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- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



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

HEALTH	4	Health = 4
FIRE	1	Fire = 1
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:**

1310-73-2	sodium hydroxide	C R35	5.0-15%
106232-83-1	Alcohols C13-C15 branched and linear, ethoxylated	Xn R22; Xi R41	5.0-15%
29329-71-3	(1-Hydroxyethyliden)bisphosphonsäure, Natriumsalz	Xn R22; Xi R36	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:**
If skin irritation continues, consult a doctor.
Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Drink copious amounts of water and provide fresh air. Immediately call a doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **Danger** Danger of gastric perforation.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

* 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:** Wear fully protective suit.

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- **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).

Use neutralizing agent.

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** Open and handle receptacle with care.

- **Information about protection against explosions and fires:** The product is not flammable.

- **Conditions for safe storage, including any incompatibilities**

- **Storage:**

- **Requirements to be met by storerooms and receptacles:**

Suitable material for receptacles and pipes: Stainless steel.

Unsuitable material for receptacle: aluminium.

- **Information about storage in one common storage facility:** Do not store together with acids.

- **Further information about storage conditions:** Keep receptacle tightly sealed.

- **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:**

1310-73-2 sodium hydroxide (5.0-15%)

PEL	Long-term value: 2 mg/m ³
REL	Short-term value: C 2 mg/m ³
TLV	Short-term value: C 2 mg/m ³

- **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.

Ensure that washing facilities are available at the work place.

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 and skin.

- **Breathing equipment:** Not required.

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- **Protection of hands:**



Protective gloves

- **Material of gloves**

PVC or PE gloves

Recommended thickness of the material: ≥ 0.4 mm

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

Rubber gloves

Leather gloves

- **Eye protection:**



Tightly sealed goggles

- **Body protection:** Alkaline resistant protective clothing

* 9 Physical and chemical properties

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

- **General Information**

- **Appearance:**

Form:	Fluid
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Color:	Light yellow
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Odor:	Characteristic
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pH-value at 20 °C (68 °F):	12.5
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- **Change in condition**

Melting point/Melting range:	Undetermined.
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Boiling point/Boiling range:	100 °C (212 °F)
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Flash point:	> 100 °C (> 212 °F) (ASTMD93(PMCC))
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Auto igniting:	Product is not selfigniting.
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Danger of explosion:	Product does not present an explosion hazard.
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Vapor pressure:	Not determined.
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Density at 20 °C (68 °F):	1.17 g/cm ³ (9.764 lbs/gal)
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- **Solubility in / Miscibility with**

Water:	Fully miscible.
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- **Viscosity:**

Dynamic at 20 °C (68 °F):	75 mPas
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- **Solvent content:**

Organic solvents:	0.0 %
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Other information	No further relevant information available.
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* 10 Stability and reactivity

- **Reactivity**

- **Chemical stability**

- **Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

- **Possibility of hazardous reactions**

Reacts with acids.

Reacts with light alloys to form hydrogen.

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- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** aluminum
- **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:**

1310-73-2 sodium hydroxide

Oral LD-50 2000 mg/kg (rat)

106232-83-1 Alcohols C13-C15 branched and linear, ethoxylated

Oral LD-50 >2000 mg/kg (rat)

29329-71-3 (1-Hydroxyethyliden)bisphosphonsäure, Natriumsalz

Oral LD-50 1100 mg/kg (rat)

- **Primary irritant effect:**
- **on the skin:** Strong caustic effect on skin and mucous membranes.
- **on the eye:** Strong caustic effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Corrosive
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

68-12-2 N,N-dimethylformamide

3

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

* 12 Ecological information

- **Toxicity**

- **Aquatic toxicity:**

1310-73-2 sodium hydroxide

EC-50 15 min 22 mg/l (Photobacterium phosphoreum)

EC-50 24h 76 mg/l (Daphnia magna)

LC-50 24 h 145 mg/L (Poecilia reticulata)

LC-50 96h 125 mg/l (gam)

106232-83-1 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)

29329-71-3 (1-Hydroxyethyliden)bisphosphonsäure, Natriumsalz

EC-50 96h >170 mg/l (Daphnia magna)

LC-50 96h >100 mg/l (Oncorhynchus mykiss)

- **Persistence and degradability** No further relevant information available.
- **Other information:** The product is biodegradable.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.

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- **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.
Must not reach bodies of water or drainage ditch undiluted or unneutralized.
The product may not be released into the environment without control.
Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.
- **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.
- **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, IMDG, IATA	UN1719
· UN proper shipping name · DOT · ADR · IMDG, IATA	Caustic alkali liquids, n.o.s. (Sodium hydroxide) 1719 Caustic alkali liquids, n.o.s. (Sodium hydroxide) CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYDROXIDE)
· Transport hazard class(es) · DOT, ADR, IMDG, IATA · Class · Label	8 Corrosive substances. 8
· Packing group · DOT, ADR, IMDG, IATA	II
· Environmental hazards: · Marine pollutant:	No
· Special precautions for user · Danger code (Kemler): · EMS Number: · Segregation groups	Warning: Corrosive substances 80 F-A,S-B Alkalis
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.

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* 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):

68-12-2 | N,N-dimethylformamide

· TSCA (Toxic Substances Control Act):

1310-73-2 | sodium hydroxide

106232-83-1 | Alcohols C13-C15 branched and linear, ethoxylated

29329-71-3 | (1-Hydroxyethyliden)bisphosphonsäure, Natriumsalz

94441-92-6 | Sodium salt of a short-chained alkylamincarboxylats

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

27344-41-8 | Dinatrium-2,2'-([1,1'-biphenyl]-4,4'-diyldivinylen)bis(benzolsulfonat)

68-12-2 | N,N-dimethylformamide

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.

· TLV (Threshold Limit Value established by ACGIH)

68-12-2 | N,N-dimethylformamide

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.

· Canadien Substances Listings:

· Canadien Domestic Substances List (DSL):

1310-73-2 | sodium hydroxide

106232-83-1 | Alcohols C13-C15 branched and linear, ethoxylated

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68-12-2 | N,N-dimethylformamide

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

· Canadien Ingredient disclosure list (limit 0.1%)

1310-73-2 | sodium hydroxide

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27344-41-8	Dinatrium-2,2'-([1,1'-biphenyl]-4,4'-diyldivinylen)bis(benzolsulfonat)
68-12-2	N,N-dimethylformamide
7732-18-5	water, distilled, conductivity or of similar purity
· Canadian Ingredient disclosure list (limit 1%)	
1310-73-2	sodium hydroxide

· Product related hazard informations:

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

· Hazard symbols:

C Corrosive

· Hazard-determining components of labeling:

sodium hydroxide

· Risk phrases:

Causes severe burns.

· Safety phrases:

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

After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap.

Wear suitable gloves and eye/face protection.

· 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 MSDS:

Kurt Vogel

Tel. +49 (0)611 9271-175

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