

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 06/06/2005

Reviewed on 06/06/2005

## 1 Identification of substance

- **Product details**
- **Trade name:** Derval Solo
- **Article number:** 2211-AA-01
- **Application of the substance / the preparation**  
Liquid one-shot detergent concentrate for white and colored cottons and mixed fibres
- **Information department:**  
Abteilung TQM  
Herr Vogel  
+49 (0) 611 9271-175

## 2 Composition/Data on components

- **Chemical characterization**
- **Description:**  
Contents in accordance with EC recommendations: 5 - 15 % non-ionic surfactant, below 5 % amphoteric surfactant, 2 - 5 % NTA, below 5 % phosphonate.  
Others: optical brightener, alkali

- **Dangerous components:**

1310-58-3	potassium hydroxide	C; R 22-35	5.0-15%
6834-92-0	disodium metasilicate	C; R 34-37	5.0-15%
68551-12-2	nonionic surfactants	Xn, N; R 22-41-50	1.0-5.0%
	amphoteric surfactant	Xi; R 38-41	1.0-5.0%

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

## 3 Hazards identification

- **Hazard description:**  
C Corrosive
- **Information pertaining to particular dangers for man 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.  
R 35 Causes severe burns.
- **Classification system:**  
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.
- **NFPA ratings (scale 0 - 4)**  
Health = 3  
Fire = 1  
Reactivity = 0
- **HMIS-ratings (scale 0 - 4)**  
Health = 3  
Fire = 1  
Reactivity = 0

## 4 First aid measures

- **General information:** Immediately remove any clothing soiled by the product.
- **After skin contact:** 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:** Immediately call a doctor.

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- **Information for doctor:**
- **Danger** Danger of gastric perforation.

## 5 Fire fighting measures

- **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Protective equipment:** Wear fully protective suit.

## 6 Accidental release measures

- **Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.
- **Measures for environmental protection:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**  
Use neutralizing agent.  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.

## 7 Handling and storage

- **Handling:**
- **Information for safe handling:** Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Provide ventilation for receptacles.  
Store in a cool location.  
Suitable material for receptacles and pipes: Stainless steel.
- **Information about storage in one common storage facility:**  
Store away from flammable substances.  
Do not store together with oxidizing and acidic materials.
- **Further information about storage conditions:** Keep receptacle tightly sealed.

## 8 Exposure controls and 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:**

### 1310-58-3 potassium hydroxide

REL 2 mg/m<sup>3</sup>TLV Short-term value: C 2 mg/m<sup>3</sup>

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
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.
- **Protection of hands:** Protective gloves

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- **Material of gloves**  
PVC or PE gloves  
Recommended thickness of the material:  $\geq 0.4$  mm
- **For the permanent contact in work areas without heightened risk of injury (e.g. Laboratory gloves made of the following material are suitable:**  
PVC or PE gloves
- **Eye protection:** Tightly sealed goggles
- **Body protection:** Protective work clothing

## 9 Physical and chemical properties

### · General Information

<b>Form:</b>	Fluid
<b>Color:</b>	Colorless
<b>Odor:</b>	Characteristic

### · Change in condition

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	Undetermined.

· **Flash point:**  $>100^{\circ}\text{C}$  ( $>212^{\circ}\text{F}$ )

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

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

· **Density at 20°C (68°F):** 1.3 g/cm<sup>3</sup>

### · Solubility in / Miscibility with

**Water:** Fully miscible.

· **pH-value (10 g/l) at 20°C (68°F):** 13

### · Viscosity:

**Dynamic at 20°C (68°F):** 75 mPas

### · Solvent content:

**Organic solvents:** 0.0 %

## 10 Stability and reactivity

- **Dangerous products of decomposition:** No dangerous decomposition products known.

## 11 Toxicological information

### · Acute toxicity:

#### · LD/LC50 values that are relevant for classification:

**1310-58-3 potassium hydroxide**

Oral	LD50	273 mg/kg (rat)
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**6834-92-0 disodium metasilicate**

Oral	LD50	1280 mg/kg (rat)
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### · 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:

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Corrosive  
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

## 12 Ecological information

- **General notes:**

On the basis of the raw materials data, including in the product, the following ecological data are to expected.

bio-degradable

The surfactents including the product are biologically degradable to at least 90% (surfactant regulations of 4.6.86).

## 13 Disposal considerations

- **Product:**

- **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to official regulations.

## 14 Transport information

- **DOT regulations:**

- **Hazard class:** 8
- **Identification number:** UN1719
- **Packing group:** II
- **Proper shipping name (technical name):** CAUSTIC ALKALI LIQUID, N.O.S. (POTASSIUM HYDROXIDE)
- **Label:** 8

- **Land transport ADR/RID (cross-border):**

- **ADR/RID class:** 8 Corrosive substances
- **Danger code (Kemler):** 80
- **UN-Number:** 1719
- **Packaging group:** II
- **Description of goods:** 1719 CAUSTIC ALKALI LIQUID, N.O.S. (POTASSIUM HYDROXIDE)

- **Maritime transport IMDG:**

- **IMDG Class:** 8
- **UN Number:** 1719
- **Label:** 8
- **Packaging group:** II
- **EMS Number:** F-A,S-B
- **Marine pollutant:** No
- **Proper shipping name:** CAUSTIC ALKALI LIQUID, N.O.S. (POTASSIUM HYDROXIDE)

- **Air transport ICAO-TI and IATA-DGR:**

- **ICAO/IATA Class:** 8
- **UN/ID Number:** 1719
- **Label:** 8
- **Packaging group:** II

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· **Proper shipping name:** CAUSTIC ALKALI LIQUID, N.O.S. (POTASSIUM HYDROXIDE)

## 15 Regulations

· **Sara**

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

None of the ingredient is listed.

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

None of the ingredients is listed.

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

None of the ingredients is listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity:**

None of the ingredients is listed.

· **Carcinogeny categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

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

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

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

None of the ingredients is listed.

· **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.

· **Canada WHMIS**

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the informations required by the CPR.

· **WHMIS Class** WHMIS-Class E

· **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 labelling:**

potassium hydroxide

· **Risk phrases:**

35 Causes severe burns.

· **Safety phrases:**

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
27/28 After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water.

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37/39 Wear suitable gloves and eye/face protection.

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## 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.

- **Department issuing MSDS:**  
Abteilung TQM  
Herr Vogel  
+49 (0) 611/9271-175
- **Contact:** Herr Vogel

USA