

Safety Data Sheet

acc. to OSHA HCS

Printing date 01/22/2024

Reviewed on 01/22/2024

* 1 Identification

- **Product identifier**
- **Trade name:** Derval Power C
- **Article number:** 2016
- **Application of the substance / the mixture**
Liquid highly concentrated One-shot detergent without optical brightener. Excellent cleaning power. For cotton and blended fabrics.
- **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:**
Department T-PS
+49 (0) 611 9271-0
msds-tc@kreussler.com
- **Emergency telephone number:** +49 (0) 611 9271-0

* 2 Hazard(s) identification

- **Classification of the substance or mixture**
Corrosive to Metals 1 H290 May be corrosive to metals.
Skin Corrosion 1A H314 Causes severe skin burns and eye damage.
Eye Damage 1 H318 Causes serious eye damage.
- **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-determining components of labeling:**
sodium hydroxide
potassium hydroxide
- **Hazard statements**
May be corrosive to metals.
Causes severe skin burns and eye damage.
- **Precautionary statements**
Wear protective gloves / eye protection.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
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.
Store away from metals.

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



Health = 3
Fire = 0
Reactivity = 0

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



Health = 3
Fire = 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 Corrosive to Metals 1, H290; Skin Corrosion 1A, H314	30-50%
1310-58-3	potassium hydroxide Corrosive to Metals 1, H290; Skin Corrosion 1A, H314; Acute Toxicity - Oral 4, H302	≥2-<5%

- **Additional information:** For the wording of the listed hazard 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:** In case of unconsciousness place patient stably in side position for transportation.
- **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:** Use fire fighting measures that suit the environment.
- **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.

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6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

· 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).

Use neutralizing agent.

Dispose contaminated material as waste according to section 13.

Ensure adequate ventilation.

· 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.

· Protective Action Criteria for Chemicals

· PAC-1:

1310-73-2	sodium hydroxide	0.5 mg/m ³
1310-58-3	potassium hydroxide	0.18 mg/m ³

· PAC-2:

1310-73-2	sodium hydroxide	5 mg/m ³
1310-58-3	potassium hydroxide	2 mg/m ³

· PAC-3:

1310-73-2	sodium hydroxide	50 mg/m ³
1310-58-3	potassium hydroxide	54 mg/m ³

7 Handling and storage

· Handling:

· Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

· 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:

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.

· Storage class: 8 B

· 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 section 7.

· Control parameters

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

1310-73-2 sodium hydroxide (30-50%)

PEL Long-term value: 2 mg/m³REL Ceiling limit value: 2 mg/m³TLV Ceiling limit value: 2 mg/m³

1310-58-3 potassium hydroxide (≥2-<5%)

REL Ceiling limit value: 2 mg/m³

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TLV Ceiling limit value: 2 mg/m³

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **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 and skin.
- **Breathing equipment:**
 - In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**
 - PVC or PE gloves
 - Recommended thickness of the material: ≥ 0.4 mm
 - The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **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:** Alkaline resistant protective clothing

9 Physical and chemical properties

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

- **General Information**

- **Appearance:**

Form:	Liquid
Color:	Yellow
Odor:	Characteristic
Odor threshold:	Not determined.

- **pH-value at 20 °C (68 °F):** 14

- **Change in condition**

Melting point/Melting range:	Undetermined.
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Boiling point/Boiling range:	Undetermined.
· Flash point:	Not applicable.
· Flammability (solid, gaseous):	Not applicable.
· Decomposition temperature:	Not determined.
· Ignition temperature:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapor pressure:	Not determined.
· Density at 20 °C (68 °F):	1.43 g/cm ³ (11.93 lbs/gal)
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	Fully miscible.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	0.0 %
VOC (US)	0.0 g/l / 0.00 lb/gal
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions**
Strong exothermic reaction with acids.
Reacts with base metals forming hydrogen.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** aluminum
- **Hazardous decomposition products:** Hydrogen

* 11 Toxicological information

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

· LD/LC50 values that are relevant for classification:
ATE (Acute Toxicity Estimate)
Oral LD-50 6,660 mg/kg (rat)
1310-73-2 sodium hydroxide
Oral LD-50 2,000 mg/kg (rat)
Dermal LD-50 1,350 mg/kg (rabbit)

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1310-58-3 potassium hydroxide

Oral LD-50 333 mg/kg (rat) (OECD TG 425)

· **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)**

None of the ingredients is listed.

· **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:****1310-73-2 sodium hydroxide**

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

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

EC-50 48h 40.4 mg/l (Ceriodaphnia sp.)

40 mg/l (Daphnia magna)

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

LC-50 96h 45.4 mg/l (Oncorhynchus mykiss)

125 mg/l (gam)

1310-58-3 potassium hydroxide

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

LC-50 96h 80 mg/l (gam)

· **Persistence and degradability** No further relevant information available.· **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 undiluted product or large quantities of it 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.

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- **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	UN1719
· DOT, ADR, IMDG, IATA	
· UN proper shipping name	Caustic alkali liquids, n.o.s. (Sodium hydroxide)
· DOT	1719 CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYDROXIDE)
· ADR	CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYDROXIDE)
· IMDG, IATA	
· Transport hazard class(es)	
· DOT, ADR, IMDG, IATA	8 Corrosive substances
· Class	8
· Label	
· Packing group	II
· DOT, ADR, IMDG, IATA	
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Warning: Corrosive substances
· Hazard identification number (Kemler code):	80
· EMS Number:	F-A,S-B
· Segregation groups	(SGG18) Alkalis
· Stowage Category	A
· Segregation Code	SG22 Stow "away from" ammonium salts SG35 Stow "separated from" SGG1-acids
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· DOT	
· Quantity limitations	On passenger aircraft/rail: 1 L On cargo aircraft only: 30 L
· ADR	
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml

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· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 1719 CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYDROXIDE), 8, II

* 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
No further relevant information available.
- **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):**

All components have the value ACTIVE.

· **Hazardous Air Pollutants**

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 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.

· **New Jersey Right-to-Know List:**

1310-73-2 sodium hydroxide

1310-58-3 potassium hydroxide

· **Pennsylvania Right-to-Know List:**

1310-73-2 sodium hydroxide

1310-58-3 potassium hydroxide

· **Carcinogenity categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value)**

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.

· **Canadien Substances Listings:**

· **Canadien Domestic Substances List (DSL):**

All ingredients are listed.

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· Canadian Non-Domestic Substances List (NDSL)

None of the ingredients is listed.

· Canadian Ingredient disclosure list (limit 0.1%)

All ingredients are listed.

· Canadian Ingredient disclosure list (limit 1%)

1310-73-2 sodium hydroxide

1310-58-3 potassium hydroxide

· GHS label elements

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

· Hazard pictograms


GHS05

· Signal word Danger

· Hazard-determining components of labeling:

sodium hydroxide

potassium hydroxide

· Hazard statements

May be corrosive to metals.

Causes severe skin burns and eye damage.

· Precautionary statements

Wear protective gloves / eye protection.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

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.

Store away from metals.

· 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 T-PS

Herr Heiko Schmidt

+49 (0) 611/9271-0

· Contact: Herr Heiko Schmidt

· Date of preparation / last revision 01/22/2024

· Abbreviations and acronyms:

ADR: Accord relatif au transport international 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

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)

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HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Corrosive to Metals 1: Corrosive to metals – Category 1
Acute Toxicity - Oral 4: Acute toxicity – Category 4
Skin Corrosion 1A: Skin corrosion/irritation – Category 1A
Eye Damage 1: Serious eye damage/eye irritation – Category 1
· *** Data compared to the previous version altered.**

—US—