

# Safety Data Sheet

## acc. to OSHA HCS

Printing date 05/27/2020

Reviewed on 05/27/2020

### \* 1 Identification

- **Product identifier**
- **Trade name:** Clip Combi
- **Article number:** 2085
- **Application of the substance / the mixture**  
Concentrated drycleaning detergent with excellent antistatic properties and fragrance for hygienic textile cleaning. Application in perc and hydrocarbon, injection and for charged-system machines. VOC-free.
- **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](http://www.kreussler.com), e-mail: [office-tampa@kreussler.com](mailto:office-tampa@kreussler.com)
- **Information department:**  
Department T-PS  
+49 (0) 611 9271-0  
[msds-tc@kreussler.com](mailto:msds-tc@kreussler.com)
- **Emergency telephone number:** +49 (0) 611 9271-0

### \* 2 Hazard(s) identification

- **Classification of the substance or mixture**  
Skin Irrit. 2            H315 Causes skin irritation.  
Eye Dam. 1            H318 Causes serious eye damage.  
Aquatic Chronic 3    H412 Harmful to aquatic life with long lasting effects.

#### · 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.  
Harmful to aquatic life with long lasting effects.
- **Precautionary statements**  
Avoid release to the environment.  
Wear protective gloves / eye protection.  
If on skin: Wash with plenty of water.  
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.
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 3  
Fire = 0  
Reactivity = 0

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### · HMIS-ratings (scale 0 - 4)

HEALTH	*3	Health = *3
FIRE	0	Fire = 0
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:

69011-36-5	alcohols C13 branched, ethoxylated Eye Dam. 1, H318; Acute Tox. 4, H302	15-30%
112-34-5	2-(2-butoxyethoxy)ethanol Eye Irrit. 2A, H319	5-15%
1322-98-1	Reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide Eye Dam. 1, H318; Skin Irrit. 2, H315; Aquatic Chronic 3, H412	5-15%
64742-55-8	Distillates (petroleum), hydrotreated light paraffinic Asp. Tox. 1, H304	5-15%
68603-38-3	Amides, C16-18 and C18-unsatd., N,N-bis(hydroxyethyl) Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2A, H319	5-15%
68891-38-3	Alcohols, C12-14, ethoxylated, sulfates, sodium salts Eye Dam. 1, H318; Skin Irrit. 2, H315; Aquatic Chronic 3, H412	1-5%
157627-86-6	Alcohols C13-C15 branched and linear, ethoxylated Eye Dam. 1, H318; Acute Tox. 4, H302; Aquatic Chronic 3, H412	1-5%
61789-77-3	Dicocoalkyldimethyl, chlorides Skin Corr. 1B, H314; Eye Dam. 1, H318; Aquatic Acute 1, H400; Acute Tox. 4, H302	1-5%
3811-73-2	pyridine-2-thiol 1-oxide, sodium salt Eye Dam. 1, H318; Aquatic Acute 1, H400 (M=100); Aquatic Chronic 2, H411; Acute Tox. 4, H302; Acute Tox. 4, H332	≤0.1%

### · Additional information:

For the wording of the listed hazard phrases refer to section 16.

The mineral oils in the product contain <3% DMSO extract (IP 346).

## \* 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:

Rinse with warm water.

If skin irritation continues, consult a doctor.

Immediately wash with water and soap and rinse thoroughly.

Immediately rinse with water.

· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:** If symptoms persist consult doctor.

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- **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.

## \* 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** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Use normal protective clothing.
- **Additional information** Product does not burn

## \* 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**  
Inform respective authorities in case of seepage into water course or sewage system.  
Dilute with plenty of water.  
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).  
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.
- **Protective Action Criteria for Chemicals**

### · PAC-1:

112-34-5	2-(2-butoxyethoxy)ethanol	30 ppm
67-63-0	propan-2-ol	400 ppm
1310-58-3	potassium hydroxide	0.18 mg/m <sup>3</sup>

### · PAC-2:

112-34-5	2-(2-butoxyethoxy)ethanol	33 ppm
67-63-0	propan-2-ol	2000* ppm
1310-58-3	potassium hydroxide	2 mg/m <sup>3</sup>

### · PAC-3:

112-34-5	2-(2-butoxyethoxy)ethanol	200 ppm
67-63-0	propan-2-ol	12000** ppm
1310-58-3	potassium hydroxide	54 mg/m <sup>3</sup>

## \* 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
No special measures required.  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** The product is not flammable.

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- **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.
- **Storage class:** 12
- **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:**  
The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.  
At this time, the other constituents have no known exposure limits.

### 112-34-5 2-(2-butoxyethoxy)ethanol (5-15%)

TLV	Long-term value: 67.5* mg/m <sup>3</sup> , 10* ppm *Inhalable fraction and vapor
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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:**  
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 skin.  
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:  $\geq 0.4$  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

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## · 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:	Light yellow
· Odor:	Characteristic
· Odor threshold:	Not determined.
· pH-value at 20 °C (68 °F):	7.9
· Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
· Flash point:	Not applicable.
· Flammability (solid, gaseous):	Not applicable.
· Decomposition temperature:	Not determined.
· Auto igniting:	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):	1.01 g/cm <sup>3</sup> (8.43 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 at 20 °C (68 °F):	150 mPas
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	0.4 %
VOC (US)	0.4 %
	4.4 g/l / 0.04 lb/gl
· Other information	No further relevant information available.

## \* 10 Stability and reactivity

## · Reactivity No further relevant information available.

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- **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:**

### ATE (Acute Toxicity Estimate)

Oral	LD-50	>1,903-4,867 mg/kg (rat)
Dermal	LD-50	>6,660 mg/kg

### 69011-36-5 alcohols C13 branched, ethoxylated

Oral	LD-50	500-2,000 mg/kg (rat)
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### 112-34-5 2-(2-butoxyethoxy)ethanol

Oral	LD-50	3,384 mg/kg (rat)
Dermal	LD-50	2,700 mg/kg (bunny)

### 1322-98-1 Reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide

Oral	LD-50	2,000-5,000 mg/kg (rat) (OECD 401)
Dermal	LD-50	>2,000 mg/kg (rat) (OECD 402)

### 64742-55-8 Distillates (petroleum), hydrotreated light paraffinic

Oral	LD-50	>5,000 mg/kg (rat)
Dermal	LD-50	>3,000 mg/kg (rabbit)

### 68891-38-3 Alcohols, C12-14, ethoxylated, sulfates, sodium salts

Oral	LD-50	4,100 mg/kg (rat)
Dermal	LD-50	>2,000 mg/kg (rat)

### 157627-86-6 Alcohols C13-C15 branched and linear, ethoxylated

Oral	LD-50	1,150 mg/kg (rat)
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### 61789-77-3 Dicocoalkyldimethyl, chlorides

Oral	LD-50	300-2,000 mg/kg (rat) (OECD-Prüfrichtlinie 401)
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- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **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:  
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.

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

None of the ingredients is listed.

## \* 12 Ecological information

### · Toxicity

#### · Aquatic toxicity:

##### 69011-36-5 alcohols C13 branched, ethoxylated

LC-50 96h 1-10 mg/l (Leuciscus idus)

##### 112-34-5 2-(2-butoxyethoxy)ethanol

EC-10 (17 h) 1,170 mg/l (Pseudomonas putida)

EC-50 24h 2,850 mg/l (Daphnia magna)

LC-50 96h 1,300 mg/l (Lepomis macrochirus)

NOEC (96h) &gt;100 mg/l (Desmodesmus subspicatus)

##### 1322-98-1 Reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide

EC-50 17 h 63 mg/L (Pseudomonas putida) (Zellvermehrungshemmtest; ISO 10712)

EC-50 48h &gt;1-10 mg/l (Daphnia magna) (OECD 202, Teil 1)

EC-50 72h &gt;10-100 mg/l (Desmodesmus subspicatus) (OECD 201)

LC-50 96h &gt;1-10 mg/l (Cyprinus carpio) (OECD 203; ISO 7346; 92/69/EWG, C.1)

NOEC 21 d &gt;1-10 mg/l (Daphnia magna) (OECD 211)

NOEC (72 d) &gt;0.1-1 mg/L (Oncorhynchus mykiss) (Durchflusstest)

##### 68891-38-3 Alcohols, C12-14, ethoxylated, sulfates, sodium salts

EC-50 16h &gt;10,000 mg/l (Pseudomonas putida) (DIN 38412 T8)

EC-50 48h 7.4 mg/l (Daphnia magna) (OECD 202)

EC-50 72h 27.7 mg/l (Desmodesmus subspicatus) (OECD 201)

LC-50 96h 7.1 mg/l (Brachydanio rerio) (OECD 203)

##### 157627-86-6 Alcohols C13-C15 branched and linear, ethoxylated

EC-10 &gt;1,000 mg/L (Belebtschlamm)

EC-50 48h 1-10 mg/l (Daphnia magna) (Literaturangabe)

EC-50 72h 1-10 mg/l (Scenedesmus subspicatus) (Literaturangabe)

##### 61789-77-3 Dicocoalkyldimethyl, chlorides

LC-50 48 h &gt;0.1-1 mg/L (Acartia Tonsa)

EC-50 3 h &gt;10-100 mg/l (Belebtschlamm)

EC-50 72h &gt;0.1-1 mg/l (Pseudokirchneriella subcapitata) (OECD-Prüfrichtlinie 201)

LC-50 96h &gt;0.1-1 mg/l (Brachydanio rerio) (OECD-Prüfrichtlinie 203)

##### 3811-73-2 pyridine-2-thiol 1-oxide, sodium salt

EC-50 48h 0.022 mg/l (Daphnia magna) (OECD 202)

EC-50 96h 0.00767 mg/l (Oncorhynchus mykiss) (OECD 203)

EC-50 72h 0.46 mg/l (Selenastrum capricornutum) (OECD 201)

NOEC (72 h) 0.08 mg/l (Selenastrum capricornutum) (OECD 201)

· **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.· **Mobility in soil** No further relevant information available.· **Ecotoxicological effects:**· **Remark:** Harmful to fish· **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

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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.

Harmful to aquatic organisms

· **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

· <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.
· <b>UN "Model Regulation":</b>	Void

### \* 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):**

112-34-5 2-(2-butoxyethoxy)ethanol

67-63-0 propan-2-ol

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

All components have the value ACTIVE.

· **Hazardous Air Pollutants**

None of the ingredients is listed.

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· **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:**

67-63-0 propan-2-ol

1310-58-3 potassium hydroxide

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

67-63-0 propan-2-ol

1310-58-3 potassium hydroxide

· **Carcinogenicity 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

· **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.

· **Canadian Substances Listings:**· **Canadian Domestic Substances List (DSL):**

All ingredients are listed.

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

All ingredients are listed.

· **Canadian Ingredient disclosure list (limit 1%)**

112-34-5 2-(2-butoxyethoxy)ethanol

1322-98-1 Reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide

· **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**

Avoid release to the environment.

Wear protective gloves / eye protection.

If on skin: Wash with plenty of water.

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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.

· **National regulations:**

· **Technical instructions (air):**

Class	Share in %
NK	≤1

· **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** 05/27/2020 / 7

· **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)

HMS: 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

Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

Asp. Tox. 1: Aspiration hazard – Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

· **\* Data compared to the previous version altered.**