

SAFETY DATA SHEET

according to (EC) No 1907/2006

Revision: 26.05.2015

printing date: 27.02.2017

Replaces version from: 04.03.2015

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE
AND OF THE COMPANY/UNDERTAKING****1.1. Product identifier**

GRATO 50 MARINE VT200kg(B)

Contains

Potassium hydroxide

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use:

Cleaners for Industrial Application

1.3 Details of the supplier of the safety data sheet**Manufacturer/Supplier:**

Henkel Belgium N.V.

Esplanade 1

1020 Brussels

Belgium

Phone: +32 (2) 421 2711

Fax-no.: +32 (2) 420 7025

ua-productsafety.de@henkel.com

Emergency telephone number:

The Henkel information service also provides an around-the-clock telephone service on phone no.

+49-(0)211-797-3350 for exceptional cases.

SECTION 2: HAZARDS IDENTIFICATION**2.1 Classification of the substance or mixture****Classification (CLP):**

Corrosive to metals Category 1

H290 May be corrosive to metals.

Skin corrosion Category 1A

H314 Causes severe skin burns and eye damage.

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2.2. Label elements**Label elements (CLP):****Hazard pictogram:****Signal word:**

Danger

Hazard statement:

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

Precautionary statement:

P260 Do not breathe mist/spray.

PreventionP280 Wear protective gloves/protective clothing/
eye protection/face protection.**Precautionary statement:**

P303+P361+P353 IF ON SKIN (or hair):

Take off immediately all contaminated clothing.

Response

Rinse skin with water/ shower.

P305+P351+P338 IF IN EYES:

Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER or doctor.

2.3. Other hazards

None if used properly.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.2. Mixtures**

Base substances of preparation:

alkalis

Surfactants

Complexing agent

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Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Potassium hydroxide 1310-58-3	215-181-3 01-2119487136-33	5- < 10 %	Skin Corr. 1A H314 Acute Tox. 4 H302 Met. Corr. 1 H290
Alcohols, C12-18, ethoxylated 68213-23-0	500-201-8	1- < 5 %	Acute Tox. 4 H302 Eye Dam. 1 H318 Aquatic Chronic 3 H412
2-Butoxyethanol 111-76-2	203-905-0 01-2119475108-36	1- < 5 %	Acute Tox. 4; Inhalation H332 Acute Tox. 4; Dermal H312 Acute Tox. 4; Oral H302 Eye Irrit. 2 H319 Skin Irrit. 2 H315

For full text of the H - statements and other abbreviations see section 16 "Other information".
Substances without classification may have community workplace exposure limits available.

Declaration of ingredients according to Detergent Regulation 648/2004/EC

< 5 % phosphates
 non-ionic surfactants
 anionic surfactants

SECTION 4: FIRST AID MEASURES**4.1. Description of first aid measures**

Inhalation:

Fresh air, consult doctor.

Skin contact:

Rinse with running water and soap. Apply replenishing cream. Change all contaminated clothing.

Seek medical attention from a specialist.

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Eye contact:

Immediately flush eyes with soft jet of water or eye rinse solution for at least 15 minutes. Hold eyelid wide-open. Seek a doctor/hospital, eye flushing should continue during transportation to a doctor.

Ingestion:

Rinse out mouth, drink 1-2 glasses of water, do not induce vomiting.
Immediate medical treatment necessary.

Eye contact:

Immediately flush eyes with soft jet of water or eye rinse solution for at least 15 minutes. Hold eyelid wide-open. Seek a doctor/hospital, eye flushing should continue during transportation to a doctor.

Ingestion:

Rinse mouth, drink 1-2 glasses of water, do not induce vomiting. Immediate medical treatment necessary.

4.2. Most important symptoms and effects, both acute and delayed

Causes burns.

4.3. Indication of any immediate medical attention and special treatment needed

See section: Description of first aid measures

SECTION 5: FIREFIGHTING MEASURES**5.1. Extinguishing media**

Suitable extinguishing media:

All common extinguishing agents are suitable.

Extinguishing media which must not be used for safety reasons:

None known

5.2. Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in fires.

5.3. Advice for firefighters

Wear protective equipment.

Wear self-contained breathing apparatus.

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Additional information:

Cool endangered containers with water spray jet.

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment and emergency procedures**

Avoid contact with skin and eyes.

6.2. Environmental precautions

Do not empty into drains / surface water / ground water.

6.3. Methods and material for containment and cleaning up

Remove with liquid-absorbing material (sand, peat, sawdust).

Dispose of contaminated material as waste according to Section 13.

6.4. Reference to other sections

See advice in section 8

SECTION 7: HANDLING AND STORAGE**7.1. Precautions for safe handling**

When diluting/dissolving always slowly stir the product into water. Do not add product to hot water or hot solutions. Heating with vigorous, sudden delayed boiling is possible! Scalding hazard!

Avoid skin and eye contact.

Ensure that workrooms are adequately ventilated.

See advice in section 8

Hygiene measures:

Wash contaminated clothing before reuse.

Wash hands before work breaks and after finishing work.

Do not eat, drink or smoke while working.

The workplace should be equipped with an emergency shower and eye-rinsing facility.

7.2. Conditions for safe storage, including any incompatibilities

Store frost-free.

Keep only in original container.

Do not store together with food or other consumables (coffee, tea, tobacco, etc.).

Do not store together with strong acids.

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7.3. Specific end use(s)

Cleaners for Industrial Application

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational Exposure Limits

Valid for Germany

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
2-Butoxyethanol 111-76-2 [2-BUTOXYETHANOL]	20	98	Time Weighted Average (TWA):	Indicative	ECTLV
2-Butoxyethanol 111-76-2 [2-BUTOXYETHANOL]	50	246	Short Term Exposure Limit (STEL):	Indicative	ECTLV
2-Butoxyethanol 111-76-2	10	49	Exposure limit(s):	4 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
2-Butoxyethanol 111-76-2			Skin designation:	Can be absorbed through the skin.	TRGS 900
2-Butoxyethanol 111-76-2			Short Term Exposure Classification:	Category II: substances with a resorptive effect.	TRGS 900

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
2-Butoxyethanol 111-76-2	aqua (freshwater)					8,8 mg/L	
2-Butoxyethanol 111-76-2	aqua (marine water)					0,88 mg/L	
2-Butoxyethanol 111-76-2	STP					463 mg/L	
2-Butoxyethanol 111-76-2	sediment (freshwater)				34,6 mg/kg		
2-Butoxyethanol 111-76-2	sediment (marine water)				3,46 mg/kg		
2-Butoxyethanol 111-76-2	aqua (intermittent releases)					9,1 mg/L	
2-Butoxyethanol 111-76-2	soil				3,13 mg/kg		
2-Butoxyethanol 111-76-2	oral					200 mg/kg food	

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Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Potassium hydroxide 1310-58-3	Workers	Inhalation	Long term exposure - local effects		1 mg/m ³	
Potassium hydroxide 1310-58-3	general population	Inhalation	Long term exposure - local effects		1 mg/m ³	
2-Butoxyethanol 111-76-2	Workers	Inhalation	Acute/short term exposure - systemic effects		663 mg/m ³	
2-Butoxyethanol 111-76-2	Workers	Dermal	Long term exposure - systemic effects		75 mg/kg bw/day	
2-Butoxyethanol 111-76-2	Workers	Inhalation	Long term exposure - systemic effects		98 mg/m ³	
2-Butoxyethanol 111-76-2	general population	Inhalation	Acute/short term exposure - systemic effects		426 mg/m ³	
2-Butoxyethanol 111-76-2	general population	Inhalation	Acute/short term exposure - local effects		123 mg/m ³	
2-Butoxyethanol 111-76-2	general population	Dermal	Long term exposure - systemic effects		38 mg/kg bw/day	
2-Butoxyethanol 111-76-2	general population	Inhalation	Long term exposure - systemic effects		49 mg/m ³	
2-Butoxyethanol 111-76-2	general population	oral	Long term exposure - systemic effects		3,2 mg/kg bw/day	
2-Butoxyethanol 111-76-2	Workers	Inhalation	Acute/short term exposure - local effects		246 mg/m ³	
2-Butoxyethanol 111-76-2	Workers	Dermal	Acute/short term exposure - systemic effects		89 mg/kg bw/day	
2-Butoxyethanol 111-76-2	general population	Dermal	Acute/short term exposure - systemic effects		44,5 mg/kg bw/day	
2-Butoxyethanol 111-76-2	general population	oral	Acute/short term exposure - systemic effects		13,4 mg/kg bw/day	

Biological Exposure Indices:

Ingredient [Regulated substance]	Parameters	Biological specimen	Sampling time	Conc.	Basis of biol. exposure index	Remark	Additional Information
2-Butoxyethanol 111-76-2	Butoxyacetic acid	Urine	Sampling time: End of work week.	100 mg/l	DE BAT		
2-Butoxyethanol 111-76-2	Butoxyacetic acid (BAA), with hydrolysis	Urine	Sampling time: End of work week.	200 mg/l	DE BAT		

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8.2. Exposure controls:

Engineering controls:

Ensure good ventilation/suction at the workplace.

Respiratory protection:

In case of aerosol formation, we recommend wearing of appropriate respiratory protection equipment with ABEK P2 filter.

This recommendation should be matched to local conditions.

Hand protection:

Chemical-resistant protective gloves (EN 374). Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374): Polychloroprene (CR; ≥ 1 mm thickness) or natural rubber (NR; ≥ 1 mm thickness) Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): Polychloroprene (CR; ≥ 1 mm thickness) or natural rubber (NR; ≥ 1 mm thickness) This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:

Goggles which can be tightly sealed.

Skin protection:

Protective clothing that covers arms and legs.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties**

Appearance	liquid clear yellowish
Odor	characteristic colourless
Odor	no valuation
Odour threshold	No data available / Not applicable
pH (20 °C (68 °F); Conc.: 1,0 Weight%;	11,5 - 12,5
Solvent: Demineralised water)	

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Initial boiling point	> 100 °C (> 212 °F)
Flash point	No flash point up to 100°C. Aqueous preparation.
Decomposition temperature	No data available / Not applicable
Vapour pressure	No data available / Not applicable
Density (20 °C (68 °F))	1,05 - 1,13 g/cm ³
Bulk density	No data available / Not applicable
Viscosity (; 20 °C (68 °F))	1,1 mPa.s
Viscosity (kinematic)	No data available / Not applicable
Explosive properties	No data available / Not applicable
Solubility (qualitative) (20 °C (68 °F); Solvent: Water)	fully miscible
Solidification temperature	No data available / Not applicable
Melting point	No data available / Not applicable
Flammability	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Explosive limits	No data available / Not applicable
Partition coefficient: n-octanol/water	No data available / Not applicable
Evaporation rate	No data available / Not applicable
Vapor density	No data available / Not applicable
Oxidising properties	No data available / Not applicable

9.2. Other information

No data available / Not applicable

SECTION 10: STABILITY AND REACTIVITY**10.1. Reactivity**

Reacts with acids: Heat released.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

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10.4. Conditions to avoid

No decomposition if used according to specifications.

10.5. Incompatible materials

See section reactivity

10.6. Hazardous decomposition products

None if used for intended purpose.

In case of fire toxic gases can be released.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

General toxicological information:

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Skin irritation:

Causes severe skin burns and eye damage.

Acute oral toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Potassium hydroxide 1310-58-3	LD50	388 mg/kg	oral		rat	OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure)
2-Butoxyethanol 111-76-2	LD50	1.746 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)

Acute dermal toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
2-Butoxyethanol 111-76-2	LD50	2.000 mg/kg	dermal		rabbit	

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Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Potassium hydroxide 1310-58-3	corrosive	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
2-Butoxyethanol 111-76-2	irritating	4 h	rabbit	EU Method B.4 (Acute Toxicity: Dermal Irritation / Corrosion)

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
2-Butoxyethanol 111-76-2	irritating	24 h	rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
2-Butoxyethanol 111-76-2	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
2-Butoxyethanol 111-76-2	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)

Repeated dose toxicity

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
2-Butoxyethanol 111-76-2	NOAEL=0,121 mg/l	inhalation	42 or 90 days 6 hours/day, 5 days/week	rat	
2-Butoxyethanol 111-76-2	NOAEL=< 69 mg/kg	oral: drinking water	91 d continuous	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

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SECTION 12: ECOLOGICAL INFORMATION

General ecological information:

Do not empty into drains / surface water / ground water.

Locally harmful for aquatic and landliving organisms because of high pH and corrosive properties.

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Other adverse effects:

If acidic or alkaline products are discharged into wastewater installations care must be taken that the discharged wastewater has a pH in the range pH 6 - 10, as pH variations could cause disorders in wastewater channels and biological sewage treatment plants. The local discharge regulations take precedence.

12.1. Toxicity

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Potassium hydroxide 1310-58-3	LC50	28,6 mg/l	Fish	24 h	Daphnia sp.	OECD Guideline 203 (Fish, Acute Toxicity Test)
Potassium hydroxide 1310-58-3	EC50	> 100 mg/l	Daphnia			OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Alcohols, C12-18, ethoxylated 68213-23-0	LC50	1,7 mg/l	Fish	96 h	Brachydanio rerio (new name: Danio rerio)	ISO 7346-1 (Determination of the Acute Lethal Toxicity of Substances to a Freshwater Fish [Brachydanio rerio Hamilton- Buchanan (Teleostei, Cyprinidae)])
Alcohols, C12-18, ethoxylated 68213-23-0	EC50	2,7 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Alcohols, C12-18, ethoxylated 68213-23-0	EC50	1,5 mg/l	Algae	96 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	DIN 38412-09
Alcohols, C12-18, ethoxylated 68213-23-0	NOEC	> 0,1 - 1 mg/l	chronic Daphnia	21 d	Daphnia sp.	OECD 211 (Daphnia magna, Reproduction Test)
2-Butoxyethanol 111-76-2	LC50	> 1.000 mg/l	Fish	48 h	Leuciscus idus	DIN 38412-15
2-Butoxyethanol 111-76-2	EC50	> 300 mg/l	Daphnia	24 h	Daphnia magna	
2-Butoxyethanol 111-76-2	EC50	> 900 mg/l	Algae	7 d	Scenedesmus quadricauda	OECD Guideline 201 (Alga, Growth Inhibition Test)

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12.2. Persistence and degradability

Degradation of surfactants

The biodegradability of the surfactants contained in the product is in accordance with the requirements of the EU Detergent Regulation (EC/648/2004).

The surfactants contained in the products are primary biodegradable to at least 90% on average.

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
Alcohols, C12-18, ethoxylated 68213-23-0	readily biodegradable	aerobic	77 %	EU Method C.4-E (Determination of the "Ready" BiodegradabilityClosed Bottle Test)
2-Butoxyethanol 111-76-2	readily biodegradable	aerobic	73 %	EU Method C.4-E (Determination of the "Ready" BiodegradabilityClosed Bottle Test)

12.3. Bioaccumulative potential / 12.4. Mobility in soil

Hazardous components CAS-No.	LogKow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
2-Butoxyethanol 111-76-2	0,81				25 °C	OECD Guideline 107 (Partition Coefficient (n- octanol / water), Shake Flask Method)

12.5. Results of PBT and vPvB assessment

Hazardous components CAS-No.	PBT/vPvB
Potassium hydroxide 1310-58-3	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Alcohols, C12-18, ethoxylated 68213-23-0	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
2-Butoxyethanol 111-76-2	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. Other adverse effects

No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Product disposal:

In consultation with the responsible local authority, must be subjected to special treatment.

Waste code 060299

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

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printing date: 27.02.2017

Replaces version from: 04.03.2015

SECTION 14: TRANSPORT INFORMATION**14.1. UN number**

ADR	1814
RID	1814
ADN	1814
IMDG	1814
IATA	1814

14.2. UN proper shipping name

ADR	POTASSIUM HYDROXIDE SOLUTION
RID	POTASSIUM HYDROXIDE SOLUTION
ADN	POTASSIUM HYDROXIDE SOLUTION
IMDG	POTASSIUM HYDROXIDE SOLUTION
IATA	Potassium hydroxide solution

14.3. Transport hazard class(es)

ADR	8
RID	8
ADN	8
IMDG	8
IATA	8

14.4. Packaging group

ADR	II
RID	II
ADN	II
IMDG	II
IATA	II

14.5. Environmental hazards

ADR	not applicable
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

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SECTION 14: TRANSPORT INFORMATION**14.6. Special precautions for user**

ADR	not applicable
	Tunnelcode: (E)
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable

SECTION 15: REGULATORY INFORMATION**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

VOC content 4 %
(1999/13/EC)

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

National regulations/information (Germany):

WGK: WGK = 1, slightly water endangering product. Classification according to the mixture rules in German VwVwS regulation annex 4 from 27.July 2005

Storage class according to TRGS 510: 8B

SECTION 16: OTHER INFORMATION

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:

H290 May be corrosive to metals.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H318 Causes serious eye damage.

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H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H412 Harmful to aquatic life with long lasting effects.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H412 Harmful to aquatic life with long lasting effects.

Further information:

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

Label elements (DPD):**C - Corrosive****Risk phrases:**

R35 Causes severe burns.

Safety phrases:

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Contains:

Potassium hydroxide

Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.

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