





According to EC-Regulation 201	3/03/0			
Toxic to aquatic life	e with long lasting effects. (H411)			
Precautionary stater General	nents If medical advice is needed, have product container or label at hand. (P101).			
Prevention Response	Keep out of reach of children. (P102). Do not breathe mist/vapours/fume/spray. (P260). IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. (P303+P361+P353).			
Storage Disposal	Store locked up. (P405). Dispose of contents/container to an approved waste disposal plant. (P501).			
potassium hydroxi	Not applicable			
	89EY-MU65-020Y-WE61			
Not applicable				
Additional warnings Tactile warning. If VOC (volatile organi Not applicable	this product is sold in retail, it must be delivered with child-resistant fastening.			
<b>SECTION 3: Composition/inf</b>	ormation on ingredients			
3.1/3.2. Substances/Mix	ttures			
NAME: IDENTIFICATION NOS.: CONTENT: CLP CLASSIFICATION:	potassium hydroxide CAS-no: 1310-58-3 EC-no: 215-181-3 REACH-no: 01-2119487136-33 Index-no: 019-002-00-8 5 - <10% Met. Corr. 1, Acute Tox. 4, Skin Corr. 1A H290, H302, H314			
NAME: IDENTIFICATION NOS.: CONTENT: CLP CLASSIFICATION:	Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides CAS-no: 68424-85-1 EC-no: 270-325-2 REACH-no: 01-2119965180-41 2.5 - <5% Acute Tox. 4, Skin Corr. 1B, Eye Dam. 1, Aquatic Acute 1, Aquatic Chronic 1			
	H302, H314, H318, H400, H410 (M-acute = 10) (M-chronic = 1)			
NAME: IDENTIFICATION NOS.:	dodecyldimethylaminoxid CAS-no: 1643-20-5 EC-no: 216-700-6			
CONTENT: CLP CLASSIFICATION:	2.5 - <5% Skin Irrit. 2, Eye Dam. 1 H315, H318			
(*) See full text of H-phrase Other information	es in section 16. Occupational exposure limits are listed in section 8, if these are available.			
Skin Corr. 1A Sum = S N chronic (CAT 2) Sum	st) > 5 20000			
Detergent: < 5%: BENZALKONIUI	M CHLORIDE, AMPHOTERIC SURFACTANTS			
SECTION 4: First aid measur	res			
4.1. Description of first	aid measures			
General information				



In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. The doctor can contact The National Poisons Information Service: Dial 0344 892 0111 (24 h service). Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

#### Inhalation

Bring the person into fresh air and stay with him/her.

#### Skin contact

Immediately remove contaminated clothing and shoes. Ensure that skin, which has been exposed to the material, is washed thoroughly with soap and water.

#### Eye contact

Remove contact lenses. Flush eyes with plenty of water or salt water (20-30°C) for at least 15 minutes and continue until irritation stops. Make sure you flush under the upper and lower eyelids. Seek medical assistance immediately and continue flushing.

#### Ingestion

In the case of ingestion, contact a doctor immediately and bring the safety data sheet or label. If the person is conscious, give them water. DO NOT try to induce vomiting, unless this is recommended by a doctor. Hold head facing down to prevent vomit returning to the mouth and throat. Prevent shock by keeping the injured person warm and calm. Initiate immediate resuscitation if breathing stops. If unconscious, roll the injured person into recovery position. Call an ambulance.

#### **Burns**

#### Not applicable

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

Tissue-damaging effects: This product contains substances with skin corrosive properties. Inhaled vapour or aerosols may produce adverse effects to lungs, -irritations and burns in the respiratory organs -as well as coughing. Dermal contact and contact with the eye cause irreversible effects.

This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

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

IF exposed or concerned: Get immediate medical advice/attention.

## Information to medics

Bring this safety data sheet.

## **SECTION 5: Firefighting measures**

#### 5.1. Extinguishing media

Recommended: alcohol-resistant foam, carbonic acid, powder, water mist.

#### 5.2. Special hazards arising from the substance or mixture

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous catabolic substances are produced. These are: Some metal oxides. Fire will result in dense black smoke. Exposure to combustion products may harm your health. Fire fighters should wear appropriate protection equipment. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

#### 5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

## SECTION 6: Accidental release measures

# 6.1. Personal precautions, protective equipment and emergency procedures

Avoid direct contact with spilled substances.

## 6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc. In the event of leakage to the surroundings, contact local environmental authorities. It is recommended to install waste collection trays to prevent emissions to the waste water system and surrounding environment.

#### 6.3. Methods and material for containment and cleaning up

Use sand, sawdust, earth, vermiculite, diatomaceous earth to contain and collect non-combustible absorbent materials and place in container for disposal, according to local regulations.

#### 6.4. Reference to other sections

See section on "Disposal considerations" in regard of handling of waste. See section on 'Exposure controls/personal protection' for protective measures.



## **SECTION 7: Handling and storage** 7.1. Precautions for safe handling Smoking, storage of tobacco, consumption and storage of food or liquids are not allowed in the workrooms. It is recommended to install waste collection travs to prevent emissions to the waste water system and surrounding environment. See section on 'Exposure controls/personal protection' for information on personal protection. Avoid direct contact with the product. 7.2. Conditions for safe storage, including any incompatibilities Always store in containers of the same material as the original container. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Storage temperature Room temperature 18 to 23°C 7.3. Specific end use(s) This product should only be used for applications quoted in section 1.2 **SECTION 8: Exposure controls/personal protection** 8.1. Control parameters OEL potassium hydroxide Long-term exposure limit (8-hour TWA reference period): - ppm | - mg/m<sup>3</sup> Short-term exposure limit (15-minute reference period): - ppm | 2 mg/m<sup>3</sup> **DNEL / PNEC** DNEL (potassium hydroxide): 1mg/m3 Exposure: Inhalation Duration of Exposure: Long term - Local effects - Workers DNEL (potassium hydroxide): 1mg/m3 Exposure: Inhalation Duration of Exposure: Long term - Local effects - General population DNEL (Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides): 3.96 mg/m3 Exposure: Inhalation Duration of Exposure: Long term - Systemic effects - Workers DNEL (Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides): 5.7 mg/kg bw/day Exposure: Dermal Duration of Exposure: Long term - Systemic effects - Workers DNEL (Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides): 1.64 mg/m3 Exposure: Inhalation Duration of Exposure: Long term - Systemic effects - General population DNEL (Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides): 3.4 mg/kg/day Exposure: Dermal Duration of Exposure: Long term - Systemic effects - General population DNEL (Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides): 3.4 mg/kg bw/day Exposure: Oral Duration of Exposure: Long term - Systemic effects - General population PNEC (Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides): 0.0009 mg/l Exposure: Freshwater PNEC (Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides): 0.00096 mg/l Exposure: Marine water PNEC (Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides): 0.4 mg/l Exposure: Sewage Treatment Plant PNEC (Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides): 12.27 mg/kg dw Exposure: Freshwater sediment PNEC (Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides): 13.09 mg/kg dw Exposure: Marine water sediment PNEC (Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides): 7 mg/kg dw Exposure: Soil

#### 8.2. Exposure controls



Compliance with the accepted occupational exposure limits values should be controlled on a regular basis. General recommendations

Observe general occupational hygiene standards.

# Exposure scenarios

There is no appendix to this safety data sheet.

## **Exposure limits**

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

#### Appropriate technical measures

Ensure emergency eyewash and -showers are clearly marked.

## Hygiene measures

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Always wash hands, forearms and face.

# Measures to avoid environmental exposure

Keep containment materials near the workplace. If possible, collect spillage during work.

#### Individual protection measures, such as personal protective equipment



#### Generally

Use only CE marked protective equipment.

## **Respiratory Equipment**

No specific requirements.

# Skin protection

Dedicated work clothing should be worn. Wear a protective suit in the event of prolonged periods of work with the product.

# Hand protection

Butyl rubber

Breakthrough time: > 480 minutes (Class 6)

#### **Eye protection**

Wear safety glasses with side shields.

## **SECTION 9: Physical and chemical properties**

9	0.1. Information on basic physical and chemical place	roperties	
	Form	Liquid	
	Colour	Colourless	
	Odour	Mild	
	Odour threshold (ppm)	No data available.	
	pH	13.5	
	Viscosity (40°C)	No data available.	
	Density (g/cm <sup>3</sup> )	1.06	
	Phase changes		
	Melting point (°C)	No data available.	
	Boiling point (°C)	No data available.	
	Vapour pressure	No data available.	
	Decomposition temperature (°C)	No data available.	
	Evaporation rate (n-butylacetate = 100)	No data available.	
	Data on fire and explosion hazards		
	Flash point (°C)	No data available.	
	Ignition (°C)	No data available.	
	Auto flammability (°C)	No data available.	
	Explosion limits (% v/v)	No data available.	
	Explosive properties	No data available.	
	Solubility		
	Solubility in water	Soluble	
	n-octanol/water coefficient	No data available.	



According to EC-Regulation 2015/650	
9.2. Other information	
Solubility in fat (g/L)	No data available.
SECTION 10: Stability and reactivity	
10.1. Reactivity	
No data available	
10.2. Chemical stability	
	e conditions, noted in the section "Handling and storage".
10.3. Possibility of hazardous rea	
Nothing special	
10.4. Conditions to avoid	
Nothing special	
10.5. Incompatible materials	
Strong acids, strong bases, st	rong oxidizing agents, and strong reducing agents.
10.6. Hazardous decomposition p	roducts
The product is not degraded w	hen used as specified in section 1.
<b>SECTION 11: Toxicological information</b>	
11.1. Information on toxicological	offects
Acute toxicity	mounda hanzul C12.16 alkuldimethul ahlaridaa
Species: Rabbit	ompounds, benzyl-C12-16-alkyldimethyl, chlorides
Test: LD50	
Route of exposure: Dermal	
Result: 3340 mg/kg	
Substance: Quaternary ammonium co	ompounds, benzyl-C12-16-alkyldimethyl, chlorides
Species: Rat	
Test: LD50 Route of exposure: Oral	
Result: 300-2000 mg/kg	
Substance: potassium hydroxide Species: Rat	
Test: LD50	
Route of exposure: Oral	
Result: 333.0	
Skin corrosion/irritation Causes severe skin burns and eye da	amage.
	onium compounds, benzyl-C12-16-alkyldimethyl, chlorides
Test: no guideline followed Organism: Rabbit	
Result: corrosive	
Serious eye damage/irritation	
Causes serious eye damage.	
Respiratory or skin sensitisation No data available.	
Germ cell mutagenicity	
No data available.	
Carcinogenicity No data available.	
Reproductive toxicity	
No data available.	
STOT-single exposure	
No data available. STOT-repeated exposure	
No data available.	
Aspiration hazard	
No data available.	
Long term effects Tissue-damaging effects: This produc	t contains substances with skin corrosive properties. Inhaled vapour or aerosols may produce
	nd burns in the respiratory organs -as well as coughing. Dermal contact and contact with the eye
cause irreversible effects.	
	hich may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an ar hazardous substances at the area of exposure.
SECTION 12: Ecological information	
SECTION 12. ECOLOGICAL INFORMATION	

# **SECTION 12: Ecological information**



	Foxicity Substance: Quaternary ammonium compour	ds. benzyl-C12-16-alkyldimethyl, chlorid	es			
	Species: Daphnia					
	Test: EC50					
	Duration: 48h Result: 0.01-0.1 mg/l					
	Result. 0.01-0.1 mg/l					
	Substance: Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides					
	Species: Fish Test: LC50					
	Duration: 96h					
	Result: 0.1-1 mg/l					
	Substance: Quaternary ammonium compour	nds benzyl-C12-16-alkyldimethyl chlorid	22			
	Species: Algae					
	Test: NOEC					
	Duration: 72h					
	Result: 0.001-0.01 mg/l					
	Substance: Quaternary ammonium compour	nds, benzyl-C12-16-alkyldimethyl, chlorid	es			
	Species: Algae Test: EC50					
	Duration: 72h					
	Result: 0.01-0.1 mg/l					
	Substance: potassium hydroxide					
	Species: Daphnia					
	Test: EC50					
	Duration: 48h					
	Result: 40-240mg/l					
	Substance: potassium hydroxide					
	Species: Fish Test: LC50					
	Duration: 96h					
	Result: 80mg/l					
12.2. F	Persistence and degradability					
	Substance	Biodegradability	Test	Result		
	Quaternary ammonium compounds,	Yes	Closed Bottle Test	>60%		
12.3. F	Bioaccumulative potential					
	Substance	Potential bioaccumulation	LogPow	BCF		
	Quaternary ammonium compounds,	No	-1.93	No data availab		
124	Mobility in soil					
	Quaternary ammonium compounds,: Log k	Koc= -1.449967, Calculated from LogPow	<i>ı</i> ().			
	Results of PBT and vPvB assessn		V			
12.5. I	This mixture/product does not contain any su	ibstances considered to meet the criteria	classifying them as PBT a	and/or vPvB.		
12.6. 0	Other adverse effects		<i></i>			
12.6. 0	This product contains substances that are to			anisms.		
12.6. (	This product contains substances that are to This product contains substances, which ma			anisms.		
12.6. 0	This product contains substances that are to This product contains substances, which ma <b>3: Disposal considerations</b>			anisms.		
12.6. ( CTION 1 13.1. \	This product contains substances that are to This product contains substances, which ma <b>3: Disposal considerations</b> Waste treatment methods	y cause adverse long-term effects to the		anisms.		
12.6. ( CTION 1 13.1. V	This product contains substances that are to This product contains substances, which ma <b>3: Disposal considerations</b> <b>Waste treatment methods</b> Product is covered by the regulation	y cause adverse long-term effects to the		anisms.		
12.6. ( CTION 1 13.1. V Wa	This product contains substances that are to This product contains substances, which ma <b>3: Disposal considerations</b> <b>Waste treatment methods</b> Product is covered by the regulation aste	y cause adverse long-term effects to the		anisms.		
12.6. ( CTION 1 13.1. V Wa	This product contains substances that are to This product contains substances, which ma <b>3: Disposal considerations</b> <b>Waste treatment methods</b> Product is covered by the regulation	y cause adverse long-term effects to the		anisms.		
12.6. ( CTION 1 13.1. V Wa	This product contains substances that are to This product contains substances, which ma <b>3: Disposal considerations</b> <b>Naste treatment methods</b> Product is covered by the regulation <b>aste</b> EWC code	y cause adverse long-term effects to the		anisms.		
12.6. ( CTION 1 13.1. V Wa Sp	This product contains substances that are to This product contains substances, which ma <b>3: Disposal considerations</b> <b>Waste treatment methods</b> Product is covered by the regulation aste EWC code - ecific labelling	y cause adverse long-term effects to the		anisms.		
12.6. ( CTION 1 13.1. V Wa Sp	This product contains substances that are to This product contains substances, which ma <b>3: Disposal considerations</b> <b>Waste treatment methods</b> Product is covered by the regulation <b>aste</b> EWC code - <b>ecific labelling</b> Not applicable	y cause adverse long-term effects to the		anisms.		
12.6. ( CTION 1 13.1. V Wa Sp Co	This product contains substances that are to This product contains substances, which ma <b>3: Disposal considerations</b> <b>Waste treatment methods</b> Product is covered by the regulation <b>aste</b> EWC code - ecific labelling Not applicable ontaminated packing	y cause adverse long-term effects to the	aquatic environment.	anisms.		
12.6. ( CTION 1 13.1. V Wa Sp Co	This product contains substances that are to This product contains substances, which ma <b>3: Disposal considerations</b> <b>Waste treatment methods</b> Product is covered by the regulation <b>aste</b> EWC code - <b>ecific labelling</b> Not applicable <b>ontaminated packing</b> Contaminated packaging must be d	y cause adverse long-term effects to the	aquatic environment.	anisms.		
12.6. ( CTION 1 13.1. V Wa Sp Co CTION 1	This product contains substances that are to This product contains substances, which ma <b>3: Disposal considerations</b> <b>Waste treatment methods</b> Product is covered by the regulation <b>aste</b> EWC code - <b>ecific labelling</b> Not applicable <b>ontaminated packing</b> Contaminated packaging must be d <b>4: Transport information</b>	y cause adverse long-term effects to the	aquatic environment.	anisms.		
12.6. ( CTION 1 13.1. V Wa Sp Co CTION 1 14.1 –	This product contains substances that are to This product contains substances, which ma <b>3: Disposal considerations</b> <b>Waste treatment methods</b> Product is covered by the regulation <b>aste</b> EWC code - <b>ecific labelling</b> Not applicable <b>ntaminated packing</b> Contaminated packaging must be d <b>4: Transport information</b> • 14.4	y cause adverse long-term effects to the	aquatic environment.	anisms.		
12.6. ( CTION 1 13.1. V Wa Sp Co CTION 1 14.1 –	This product contains substances that are to This product contains substances, which ma <b>3: Disposal considerations</b> <b>Waste treatment methods</b> Product is covered by the regulation <b>aste</b> EWC code - <b>ecific labelling</b> Not applicable <b>ontaminated packing</b> Contaminated packaging must be d <b>4: Transport information</b>	y cause adverse long-term effects to the	aquatic environment.	anisms.		



• •	
14.2. UN proper shipping name	CORROSIVE LIQUID, N.O.S.
14.3. Transport hazard	8
class(es)	-
14.4. Packing group	II
Notes	-
Tunnel restriction code	E
IMDG	
UN-no.	1760
Proper Shipping Name	CORROSIVE LIQUID, N.O.S.
Class	8
PG*	11
EmS	F-A, S-B
MP**	-
Hazardous constituent	-
IATA/ICAO	
UN-no.	1760
Proper Shipping Name	CORROSIVE LIQUID, N.O.S.
Class	8
PG*	II

## 14.5. Environmental hazards

#### 14.6. Special precautions for user

#### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No data available (\*) Packing group

\*\*) Marine pollutant

## **SECTION 15: Regulatory information**

## 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### **Restrictions for application**

People under the age of 18 shall not be exposed to this product cf. Council Directive 94/33/EC of 22 June 1994 on the protection of young people at work.

# **Demands for specific education**

# **Additional information**

Not applicable

#### Seveso

Seveso III Part 1: E1

## Biocidal reg. no.

#### Not applicable

#### Sources

Council Directive 94/33/EC of 22 June 1994 on the protection of young people at work.

The Control of Substances Hazardous to Health Regulations 2002. SI 2002/2677. The Stationery Office, 2002.

Regulation (EC) No 648/2004 of the European Parliament and of the Council of 31 March 2004 on deteraents.

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (CLP). Regulation (EC) 1907/2006 (REACH).

The Control of Major Accident Hazards (COMAH) Regulations 2015.

# 15.2. Chemical safety assessment

No

# **SECTION 16: Other information**

#### Full text of H-phrases as mentioned in section 3

H290 - May be corrosive to metals.

- H302 Harmful if swallowed.
- H314 Causes severe skin burns and eye damage.



-

H315 - Causes skin irritation.
H318 - Causes serious eye damage.
H400 - Very toxic to aquatic life.
H410 - Very toxic to aquatic life with long lasting effects.
The full text of identified uses as mentioned in section 1
-
Additional label elements
Not applicable
Other
In accordance with Regulation (EC) No. 1272/2008 (CLP) the evaluation of the classification of the mixture is based on:
The classification of the mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP)
The classification of the mixture in regard of environmental hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP)
It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.
The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.
A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.
The safety data sheet is validated by
David Löwenstein
Date of last essential change
(First cipher in SDS version)
Date of last minor change
(Last cipher in SDS version)

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