

## SAFETY DATA SHEET

According to Regulation of EP&C No. 1907/2006 on REACH of 18 Dec.2006; Appendix II changing by Regulation of EP&C No. 830/2015 appendix II.

Date of first issue: 05.01.2017 r

<b>1. Identification of the substancje/ mixture and of the company undertaking</b>	
1.1	PRODUKT IDENTIFIER <p style="text-align: center;"><b>SIDOLUX CRYSTAL for windows</b></p>
1.2	<u>RELEVANT IDENTIFIED USES OF THE SUBSTANCJE OR MIXTURE AND USES ADVISED AGAINST</u>  Application: For cleaning windows, mirrors, tiles and other smooth surfaces accessible to all consumers Application advised against any other than those mentioned above.
1.3	DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET <b>LAKMA Strefa Sp. z o.o.</b> 7 Gajowa str. 43-254 Warszowice phone: +48- 32 43 53 188 fax: +48 -32 43 53 188 ext.213 e-mail: <a href="mailto:lakmastrefa@lakma.com">lakmastrefa@lakma.com</a> ; internet : <a href="http://www.lakma.com">http://www.lakma.com</a>
1.4	EMERGENCY TELEPHONE NUMBER phone: +48- 32 43 53 188
<b>2. HAZARDS IDENTIFICATION</b>	
2.1	CLASSIFICATION OF THE SUBSTANCJE OR MIXTURE  According to binding law, product is not classified as dangerous preparation
2.2	LABEL ELEMENTS Keep out of reach of children <u>Sidolux Crystal lemon:</u> Ingredients: < 5% anionic surfactants, < 5% nonionic surfactants, fragrance (Limonene), preservatives (Benzisothiazolinone, Methylisothiazolinone) <u>Sidolux Crystal flower:</u> < 5% anionic surfactants, < 5% nonionic surfactants, fragrance, preservatives (Benzisothiazolinone, Methylisothiazolinone) <u>Sidolux Crystal arctic:</u> < 5% anionic surfactants, < 5% nonionic surfactants, fragrance, preservatives (Benzisothiazolinone, Methylisothiazolinone)
2.3	OTHER HAZARDS This products contains no substances considered to be persistent, bioaccumulating nor toxic (PBT). Thid product contains no substances considered to be very persistent nor very bioaccumulating (vPvB)
<b>3. COMPOSITION/ INFORMATION ON INGREDIENTS</b>	
3.1	SUBSTANCES  Not applicable
3.2	MIXTURES

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HAZARDOUS COMPONENTS:			
Chemical name	CAS-No EC-No Index-No Registration number	Classification (Regulation (EC) no 1272/2008)	Concentration [ % ]
<b>2-butoxyethanol</b>	111-76-2 203-905- 0 603-014-00-0 01- 2119475708- 36-xxxx	Acute Tox.4, H332, H312, H302 Eye Irrit 2, H319 Skin Irrit 2, H315	1 – 5
<b>Isopropyl alcohol</b>	67-63-0 200-661-7 603-117-00-0 01-2119457558-25-xxxx	Flam. Liq. 2 H225 Eye Irrit. 2 H319 STOT SE 3 H336	1 – 3
<b>Ammonium hydroxide</b>	1336-21- 6 215-647- 6 007-001-01-2 01- 2119488876- 14-xxxx	Skin Corr 1B, H314 Aquatic Acute 1, H400	0,05-0,1

### 4. FIRST AID MEASURES

4.1	DESCRIPTION OF FIRST AID MEASURES
If any worrying symptoms occur call doctor immediately - or transfer the victim to the hospital - show this Safety Data Sheet (SDS), package of product or label.	
<b>IF INHALED</b>	Under normal conditions , virtually no risk exists. In case of emergency, immediately move casualty to fresh air.
<b>IN CASE OF SKIN CONTACT</b>	Preventively wash skin with soap and water. In case of skin irritation symptoms occur - ensure medical aid
<b>IN CASE OF EYE CONTACT</b>	Flush eyes with huge amount of clean, running water. In case of eye irritation symptoms occur - ensure medical (preferably ophthalmologist) aid immediately!
<b>IF SWALLOWED</b>	If victim is conscious, administer 1-2 cupfuls of water to drink. Ensure medical aid immediately and show this Safety Data Sheet (SDS), package of product or its label. Never force vomiting and never give anything by mouth to an unconscious or obfuscated person
4.2	MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED
	No information available
4.3	INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED
	No information available
<b>5. FIREFIGHTING MEASURES</b>	
5.1	EXTINGUISHING MEDIA
	Use extinguishing media appropriate for burning surrounding: carbon dioxide, extinguishing powders, foam extinguisher, dispersed water streams.
5.2	SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE
	Do not apply cumulative water streams onto surface of the liquid.
5.3	ADVICE FOR FIREFIGHTERS
	During a fire, hazardous for health, vapours or fumes - containing organic and/or inorganic products, mainly carbon oxides - may be generated. Do not inhale fumes. Wear a gas-tight, protection clothing and self- contained breathing apparatus, provided with an independent

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	source of air supply
<b>6. ACCIDENTAL RELEASE MEASURES</b>	
6.1	PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES
	Do not allow outsiders and unauthorized persons to enter the accidental area. Avoid direct contact with the product, provide suitable ventilation, use appropriate personal protective equipment; see section 8.
6.2	ENVIRONMENTAL PRECAUTIONS
	Prevent contamination of soil, surface/ground waters, drainage ditches, rivers and sewage systems by large amount of product.
6.3	METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP
	The released product adsorb with an inert material (soil, sand), next place into the marked container. Clean contaminated area. Dispose of contaminated material for utilisation
6.4	REFERENCES TO OTHER SECTIONS
	Section 8 Prevent spreading over a wide area ( e.g. by containment or oil barriers)
<b>7. HANDLING AND STORAGE</b>	
7.1	PRECAUTIONS OR SAFE HANDLING
	Follow the general safety rules and regulations concerning Good Manufacturing Practice (GMP) and handling of chemicals; carefully follow routine procedures of handling as well as all manufacturer's recommendations. Avoid eyes contamination.
7.2	CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES
	Respect general precautions and rules concerning safety storage of chemical substances. Store at dry places, in tightly closed packaging, situated in vertical position, at a temperature within the range of +5 to +35°C. Do not store in the vicinity of food. Keep out of the reach of children.
7.3	SPECIFIC END USES
	No information available
<b>8. EXPOSURE CONTROLS/ PERSONAL PROTECTION</b>	
8.1	CONTROL PARAMETERS
	<p><b>2-butoxyethanol</b>  NDS 98 mg/m<sup>3</sup>  NDSCH 200 mg/m<sup>3</sup>  Employees:  DNEL- acute exposure - systemic effects: dermal 89 mg / kg / d  DNEL- acute exposure - systemic effects: inhalation of 663 mg / m<sup>3</sup>  DNEL- local effects: After inhalation of 246 mg / m<sup>3</sup>  Long-term exposure - systemic effects: dermal 75 mg / kg / d  Long-term exposure - systemic effects: inhalation 98 mg / kg  Consumers:  DNEL- acute exposure - systemic effects: skin 44.5 mg / kg / d  DNEL- acute exposure - systemic effects: inhalation 426 mg / m<sup>3</sup>  DNEL- acute exposure - systemic effects: if swallowed 13.4 mg / m<sup>3</sup> / d  DNEL- sharp narażenie- local effects: After inhalation of 123 mg / m<sup>3</sup>  DNEL- Long-term exposure - systemic effects: skin 38 mg / kg / d  DNEL- long-term exposure - systemic effects: inhalation of 49 mg / kg  DNEL- long-term exposure - systemic effects: if swallowed 3.2 mg / kg / d  PNEC Fresh water 8.8 mg / l  Sea water PNEC 8.8 mg / l  The precipitate fresh water PNEC 8,14 mg / kg</p>

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	<p>Soil PNEC of 2.8 mg / kg</p> <p><b>Isopropyl Alcohol</b> NDS 900 mg/m<sup>3</sup> NDSCH 1200 mg/m<sup>3</sup></p> <p><b>Ammonium hydroxide</b> Employees: DNEL- acute exposure - systemic effects: dermal 89 mg / kg / d DNEL- acute exposure - systemic effects: inhalation of 663 mg / m<sup>3</sup> DNEL- local effects: After inhalation of 246 mg / m<sup>3</sup> Long-term exposure - systemic effects: dermal 75 mg / kg / d Long-term exposure - systemic effects: inhalation mg / kg Consumers: DNEL- acute exposure - systemic effects: skin 44.5 mg / kg / d DNEL- acute exposure - systemic effects: inhalation 426 mg / m<sup>3</sup> DNEL- acute exposure - systemic effects: if swallowed 13.4 mg / m<sup>3</sup> / d DNEL- acute exposure - local effects: After inhalation of 123 mg / m<sup>3</sup> DNEL- Long-term exposure - systemic effects: skin 38 mg / kg / d DNEL- long-term exposure - systemic effects: inhalation of 49 mg / kg DNEL- long-term exposure - systemic effects: if swallowed 3.2 mg / kg / d PNEC Fresh water 8.8 mg / l Sea water PNEC 8.8 mg / l The precipitate fresh water PNEC 8,14 mg / kg Soil PNEC of 2.8 mg / kg PNEC water (fresh water) 0.0011 mg / l / extrapolation method: assessment factor of 20 PNEC water (sea water) 0.0011 mg / l / extrapolation method: assessment factor of 20 PNEC water (occasional secretion) 0.089 mg / l / method extrapolation: assessment factor of 10 PNEC sediment - ammonia does not accumulate in the sediments PNEC soil - not required PNEC STP (Sewage Treatment Plant) - ammonia is used as nitrogen source by the bacteria and is also produced by bacteria as a breakdown product of other nitrogen conjunction. of nitrogen. Information PNEC is not required PNEC swallow - there is no evidence to suggest properties bioaccumulable ammonia (log Kow = 0.23). BCF&gt; 100 (Kow&gt; 30 does not just met, PNEC protect against poisoning is not required NDS 14 mg / m<sup>3</sup> NDSCH 28 mg / m<sup>3</sup></p>
8.2	EXPOSURE CONTROLS
8.2.1	ENGINEERING MEASURES
	Provide eyewash post in case of its contamination. Ensure proper ventilation at the workplace.
8.2.2	INDIVIDUAL PROTECTION MEASURES, SUCH AS PERSONAL PROTECTIVE EQUIPMENT
	<b>RESPIRATORY PROTECTION:</b> In normal conditions: unnecessary.
	<b>HAND PROTECTION:</b> In normal conditions: unnecessary.
	<b>EYE PROTECTION:</b> In normal conditions: unnecessary

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	<b>HYGIENE MEASURES:</b> Clean hands thoroughly before each break and after working. Keep product away from food, drink and feeding stuff. Immediately take-off clothing contaminated with product. At work do not eat, drink, smoke or take drugs.	
8.2.3	ENVIRONMENTAL EXPOSURE CONTROLS	
	No information available	
<b>9. PHYSICAL AND CHEMICAL PROPERTIES</b>		
9.1	INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES	
	appearance	Clear, blue or green or pink liquid
	odour	Arctic -blue, Flower-pink, Lemon-green
	Odour treshold	Not determined
	pH	5,5 – 6,6
	Melting point/ Freezing point	Not determined
	Initial boiling point and boiling range	Not determined
	Flash point	Non-flammable
	Evaporation rate	Not determined
	Flammability ( solid, gas)	Not determined
	Upper/lower flammability or explosive limits	Not determined
	Vapour pressure	Not determined
	Vapour denisty	Not determined
	Relative density	0,97 - 1,01 g/cm <sup>3</sup>
	Solubility (ies)	Not determined
	Partition coefficient: n-octanol/water	Not determined
	Auto-ignition temperature	Full solubility
	Decomposition temperature	Not determined
	Viscosity	Not determined
	Explosive properties	Not determined
	Oxidizing properties	Not determined
9.2	Other information	
	Not determined	
<b>10 . STABILITY AND REACTIVITY</b>		
10.1	REACTIVITY	
	Not determined	
10.2	CHEMICAL STABILITY	
	Stable under normal conditions	
10.3	POSSIBILITY OF HAZARDOUS REACTIONS	
	Prezent no significant reactivity hazards, by itself or in contact with water	
10.4	CONDITIONS TO AVOID	
	Avoid elevated as well as sub-zero temperatures.	
10.5	INCOMPATIBLE MATERIALS	
	Unknown	
10.6	HAZARDOUS DECOMPOSITION PRODUCTS	
	Unknown.	
<b>11. TOXICOLOGICAL INFORMATION</b>		

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11.1	<b>INFORMATION ON TOXICOLOGICAL EFFECTS</b> Tests of toxicity evaluation of given preparation on animals were not conducted. <b>2-butoxyethanol</b> Acute toxicity Rat LD50 (oral)> 200-2000 mg / kg LD50 rat (dermal):> 400-2000 mg / kg LC50 rat (by inhalation):> 2-20 mg / l / 4h <b>Isopropyl Alcohol</b> Acute toxicity: LD50 rat (oral) 2000 mg / kg LD50 rabbit (dermal): 2000 mg / kg LD50 rat (inhalation)> 20 mg / l / 8h <b>Ammonium hydroxide</b> The following data refers to ammonia anhydrous Acute toxicity - oral LD50- 350 mg / kg (rat) Acute toxicity - inhalation LC50 7035 mg / m3 / 30 min (rat) LC50 7939 mg / m3 / h 1 (rat)
<b>12. ECOLOGICAL INFORMATION</b>	
12.1	<b>TOXICITY</b> Tests of toxicity evaluation of given preparation on animals were not conducted. <b>2-butoxyethanol</b> LC50 ( 96h) >100 mg/l/96h, Lepomis macrochirus EC50 ( 48h)> 100 mg/l/24h, daphnia magna EC50 ( 96h)> 100 mg/l/7 days, scenedesmus subspicatus <b>Isopropyl Alcohol</b> Acute toxicity to fish: LC50> 100 mg / l / 48h Acute toxicity for daphnia: LC50> 100 mg / l / 48h (Daphnia Magna) Acute toxicity to algae: LC50> 100 mg / l / 72h (Scenedesmus subspicatus) <b>Ammonium hydroxide</b> Fish: no data available Daphnia: no data available Bacteria: ammonia is used as nitrogen source for micro-organisms and is also produced by bacteria from other nitrogen compounds: the lack of confirmatory tests ammonia toxicity to micro-organisms Plants algae aqueous ammonia is a valuable source of nitrogen for algae: EC50 2,700 g / l Plants other than algae aqueous ammonia is absorbed by aquatic plants as a source of nitrogen and therefore characterized by low toxicity to aquatic plants
12.2	<b>PERSISTENCE AND DEGRADABILITY</b> <b>2-butoxyethanol</b> biodegradability> 70% after 28 days (activated sludge, OECD 301E) <b>Isopropyl Alcohol</b> Readily biodegradable. Oxidizes rapidly by chemical reactions in air <b>Ammonium hydroxide</b> Biodegradability: not applicable products inorganic
12.3	<b>BIOACCUMULATIVE POTENTIAL</b> <b>2-butoxyethanol</b> no data available <b>Isopropyl Alcohol</b> Log Po/w≤4 <b>Ammonium hydroxide</b> Log Pow = 0.23

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	Ammonia does not bioaccumulate
12.4	MOBILITY IN SOIL
	The product is well soluble in water and can be eliminated from water as a result of abiotic processes
12.5	RESULTS OF PBT AND vPvB ASSESEMENT
	It does not meet the criteria listed in Annex XIII REACH Regulation
12.6	OTHER ADVERSE EFFECTS
	There is no data available for this products
<b>13. DISPOSAL COSIDERATIONS</b>	
13.1	WASTE TREATMENTS METHOD
	Product: dispose of according to local regulations. Avoid disposing into drainage systems and into the environment Contaminated packaging: empty containers should be taken to an approved handling site for recycling or disposal
<b>14. TRANSPORT INFORMATION</b>	
14.1	UN NUMBER
	not classified.
14.2	UN PROPER SHIPPING NAME
	not classified.
14.3	TRANSPORT HAZARD CLASS(ES)
	not classified.
14.4	PACKING GROUP
	not classified.
14.5	ENVIRONMENTAL HAZARDOUS
	not classified.
14.6	SPECIAL PRECAUTIONS FOR USER
	No special preautions required
14.7	TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL AND THE IBC CODE
	No special precautions required
<b>15 : REGULATORY INFORMATION</b>	
15.1	SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/ LEGISLATION SPECIFIC FOR THE SUBSTANCES OR MIXTURE
	- Art.31 and Annex II of the REGULATION (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), with subsequent amendments); - Regulation (EC) no 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packing of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC and amending Regulation (EC) No 1907/2006 with subsequent amendments
15.2	CHEMICAL SAFETY ASSESSMENT
	An evaluation of the safety of chemical substances in the mixture
<b>16. OTHER INFORMATION</b>	

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### **FULL TEXT OF H-PHRASES REFERRED TO UNDER SECTION 3:**

H 225 Highly flammable liquid and vapor  
H 302 Harmful if swallowed  
H 312 Harmful in contact with skin  
H 314 Causes severe skin burns and eye damage  
H 315 Causes skin irritation  
H 319 Causes serious eye irritation  
H 332 Harmful if inhaled  
H 400 Very toxic to aquatic life  
H 336 May cause drowsiness or dizziness

### **List of necessary trainings:**

Please inform distributors/recipients about this Safety Data Sheet (SDS).

### **List of recommended restrictions connected with application:**

Prohibition of mixing with other household chemicals.

### **Possibilities to obtain further information:**

Manufacturer. See section 1.

### **Sources of data used for elaboration of the Safety Data Sheet (SDS):**

The above information is based on our current level of knowledge and concern of a product in the form of its manufacture. Data relating to given product are presented in order to take into account the safety requirements – it is not intended to guarantee any particular properties of the product or its application.

In the event that conditions of product application are not under the producer's supervision, the safe application of the product is of the user responsibility.

This Safety Data Sheet of chemical preparation was elaborated based on Technical or Safety Data Sheets delivered by producers of individual components of preparation; data included in ECHA side