


LIMESCALE REMOVER

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY			
Trade name	LIMESCALE REMOVER		
Supplier details	ECOVER BELGIUM NV		
Address	Industrieweg 3 2390 Oostmalle Belgium		
Telephone	0032 (0)3 312 88 77	Fax	0032 (0) 311 72 70
Emergency phone	0032 (0)70 245 245		
Telephone manager on guard	+32 0473 94 49 97		
Composition	Limescale remover		
2. COMPOSITION/INFORMATION ON THE INGREDIENTS			
Ingredients according to 67/548/EEC	% w/w	Symbol	CAS / EINECS-ELINCS
Citric acid	5-15	Xi, R36	77-92-9/201-069-1
Non-ionic sugar detergent	1-5	Xi R41	
3. HAZARDS IDENTIFICATION			
 Irritant	Fire	No specific risks when used normally.	
	Inhalation	In case of inhalation of large amounts, risk of sore throat, coughing, shortness of breath, difficulty in breathing, caustic.	
	Skin contact	Irritation. Prolonged and repeated contact with neat product may cause dermatitis.	
	Eye contact	Irritation. Pain, redness. May cause cornea damage.	
	Ingestion	Burning feeling in case of ingestion of large amounts. Stomachache.	
4. FIRST AID MEASURES			
Inhalation	In case of inhalation of high vapour concentrations, move the victim to fresh air. Consult a doctor.		
Skin contact	Rinse affected area thoroughly with water to remove concentrated product. Remove contaminated clothing. Seek medical attention if irritation occurs or persists.		
Eye contact	Rinse immediately and for a long time with plenty of water (also assure adequate flushing under the eyelids and if possible after having removed contact lenses). Seek medical attention if the irritation persists.		
Ingestion	Wash out mouth and do not induce vomiting! In case of ingestion of large amounts (1 glass), let the victim drink plenty of water in order to dilute the acid and consult a doctor.		
Workplace equipment	Install an eye shower on the premises.		
Hints for the physician	No specific recommendations.		



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5. FIRE-FIGHTING MEASURES	
Suitable fire extinguishing media	All extinguishing agents are allowed in case of fire in the immediate surroundings.
Non suitable media	None.
Special exposure hazards	None.
Protection against fire and explosions	Observe normal precautions for handling chemicals. For personal protection see also § 8.
6. ACCIDENTAL RELEASE MEASURES	
Environmental precaution	Do not allow concentrated or diluted product to enter the soil or surface water.
Methods for cleaning up	Recover spilled material as much as possible in a clean container for reuse. Large amounts of spilled product must be collected with a squeegee and disposed of as chemical waste according to applicable regulations. Rinse away remainder with water.
Personal precaution	Spilled product may render the floor slippery. Avoid contact with unprotected skin and eyes. Wear protective clothing (see § 8).
7. HANDLING AND STORAGE	
Handling	Avoid contact with unprotected skin and eyes.
Fire-and explosion protection	No specific recommendations.
Storage	Store in a cool and frost-free place in a closed packaging, out of reach of children.
8. EXPOSURE CONTROLS/PERSONAL PROTECTION	
Skin protection	Normal use excludes any direct contact with the skin. Wear acid-resistant protective clothing and waterproof gloves (preferably PVC, neoprene, butyl or natural rubber) when clearing accidentally released product. Thoroughly wash contaminated clothing.
Eye protection	Wear safety goggles in case of intensive use or when clearing accidentally released material. Contact lenses increase the risk of eye injuries in case of eye contact.
Respiratory protection	Ventilation. Provide respiratory protection (type B) in case of clearing accidentally released product or high vapour concentrations.
Environment protection see § 6	
<u>Ingredients with limit values regarding the working area</u>	



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9. PHYSICAL AND CHEMICAL PROPERTIES				
Appearance	liquid	Relative density 20°C	1,05	kg/l
Colour	colourless	pH conc 20°C	1,9	pH 1% -
Odour	citrus	Viscosity 25°C Brookfield LVT	10	mPa.s
Flash point	>100°C	Solubility in water 20°C	good	
Self-ignition temperature	None.			
Oxydation properties	None.			
10 . STABILITY AND REACTIVITY				
Stability	No decomposition under normal conditions of storage and use.			
Conditions to avoid	Do not store <0°C and >40°C.			
Materials to avoid	Do not mix with other cleaning products (especially not with chlorous products).			
Hazardous decomposition products	None.			
11. TOXICOLOGICAL INFORMATION		<i>Evaluation</i>		
Skin irritation (RBC test: Denaturation Index)	- % (Sodiumdodecylsulphate = 100%)			
Eye irritatie (RBC test: Mean Indices Ocular Irritancy)	-			
Remark	Skin test and eye test not determined.			
- Skin	Irritation due to the composition of the material.			
- Eye	Irritation due to the composition of the material.			
- Oral	Contains only raw materials having an oral toxicity (rat) of more than 3000 mg/kg. Hardly toxic (LD50 rat-oral-theo 5000-15000 ppm).			
Sensibilisation	To the best of our knowledge, this product contains no sensitizing raw materials.			
Remark	Contains only ELINCS or EINECS registered raw materials and does not contain any ingredients known to be mutagenic, carcinogenic, teratogenic or reproduction toxic (R45,46,47,49,60,61,63,64, EU 97/C234, 67/548/EEC, 88/379/EEC, OSHA, NTP, IARC/ARAB (cat 1-3))			



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12. ECOLOGICAL INFORMATION		Evaluation
Biodegradation acc. to Sapromat respirometry test (OECD 301F)	86 %	completely biodegradable
Biodegradation acc. to Coupled Units test (OECD 303A)	%	not tested
Biodegradation acc. to Stable Metabolite test	%	not tested
Daphnia toxicity (Daphnia magna) EC 50 48h OECD 202	>100 ppm	hardly not toxic
Rotifer toxicity (Brachionus calyciflorus) EC50 24h ASTM E1440-91	ppm	not tested
Algal toxicity (selenastrum capricornutum) EC50 72h OECD 201	>100 ppm	hardly not toxic
Bacterial toxicity EC 50 (Microtox EC50 15min) DIN 38-412-L34	ppm	not tested
<u>Remarks</u>	Ecover products do not contain any bioaccumulating raw materials and no PCM or nitromusk perfume components. The surface active components used in this product fulfill all of the biodegradability requirements in line with EU directives 73/404 and 73/404 (and their amendments).	
13. DISPOSAL CONSIDERATIONS		
Product	Waste of this product is considered chemical waste. The legislation concerning disposal of waste can differ from one country/state to another. The disposal should therefore be done according to national or local waste legislation. If in doubt, ask the local waste management authority for advice. (also see § 6 and § 8 when disposing of).	
Packaging	Packaging of this product should be disposed of as chemical waste according to national or local waste legislation. The empty packaging is not subject to ADR.	
14. TRANSPORT INFORMATION		
This product is not subject to ADR regulations.		
<u>Road transport</u>		
ADR/RID	Class	Number
UN N°		
ADR Symbol		

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15. REGULATORY INFORMATION

Symbols



Xi Irritant

R-phrases

R36/37/38 Irritating to eyes, respiratory system and skin.

S-phrases

S2 Keep out of reach of the children.

S25 Avoid contact with eyes.

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

S28 After contact with skin, wash immediately with plenty of water

S46 If swallowed, seek medical advice immediately & show container/label.

WGK classification (Germany) Not generally hazardous to water.

16. OTHER INFORMATION

For correct use of this product: see Technical Data Sheet

Consulted literature

Chemiekaarten, 12th edition, 1997, ed. MIA, VMCI, Samson

Comprehensive guide to chemical resistant best gloves for various amounts of exposure, 1999, ver.3.5 www

MSDS of the respective suppliers.

This information herein only regards the product mentioned in § 1 and does not necessarily apply to its use combined with any other product(s) or specific process. This information is accurate and complete to our best current knowledge and is presented in good faith but without any warranty, express or implied. It remains the responsibility of the user to ensure himself this information is applicable and complete with respect to the intended use.