

### 1 Product and suppliers identification

1.1 Product name	<b>CRYSTAL Simple Green</b> <b>Concentrated Industrial Cleaner &amp; Degreaser</b> Cleaner and degreaser for all type of washable surfaces. Concentrated formula, dilute with water prior to use.	
1.2 Producer	<b>Simple Green AG</b> <b>European Operations</b> <b>Hürdweg 10</b> <b>CH-8854 Galgenen</b>	<b>Tel: +41 (0)55 460 1212</b> <b>Fax: +41 (0)55 460 1210</b>
Emergency phone	Swiss Toxicological Center, Zürich	Tel: +41 (0)1 251 5151
1.3 Distributor		
Emergency phone		

### 2 Composition of the Product

Ingredients	CAS-Nr	Content	R -sentences	S - sentences
<b>Mixture of:</b>		<b>0</b>	<b>00</b>	
<b>aliphatic hydrocarbons</b>	<b>n.e.</b>	<b>&lt; 10,0 %</b>	<b>n.a.</b> <b>0</b>	<b>0</b>
<b>nonionic surfactants</b>	<b>n.e.</b>	<b>&lt; 5,0 %</b>	<b>n.a.</b> <b>0</b>	<b>0</b>
None of the ingredients is subject to be classified as a 'dangerous product' or is above the declaration limits. USA: all components are listed on the TSCA Chemical Substance Inventory.				

### 3 Hazards identification

3.1 Hazard description:	<b>not requested</b>
3.2 Information pertaining to particular dangers for man and environment	<b>none</b> <b>Mild eye-irritant</b>
<b>None of the ingredients are regulated or listed as potential cancer agents by US-federal OSHA, NTP, or IARC.</b>	

## 4 First Aid Measures

### 4.1 General Information

**Remove contaminated cloth.**

### 4.2 After inhalation

**No special requirements requested**

### 4.3 After skin contact

**Wash with water, rinse thoroughly.**

### 4.4 After eye contact

**Rinse opened eyes for several minutes under running water.  
Contact a doctor if irritation persists.**

### 4.5 After swallowing

**Rinse out mouth and then drink plenty of water.  
Avoid vomiting.**

## 5 Fire Fighting Measures

### 5.1 Suitable extinguishing media

**Since the product is not combustible or flammable, if involved in a fire, use extinguishing media appropriate to the source of the fire.**

### 5.2 For safety reasons unsuitable extinguishing agents

**None**

### 5.3 Special hazards caused by the material, its products of combustion or resulting gases

**None**

### 5.4 Special requirement for fire-fighting equipment

**Since the product is not combustible or flammable, if involved in a fire, use protecting equipment appropriate to the source of the fire.**

## 6 Accidental Release Measures

### 6.1 Person-related safety precautions:

**Change contaminated cloth.  
Avoid longer direct contact with skin or eyes.**

### 6.2 Precautionary measures for environment

**Recover usable material by convenient method. If necessary, unrecoverable material may be washed to drain with large quantities of water. Higher quantities of concentrated product may disturb the osmosis capabilities of roots from plants.**

### 6.3 Procedures for cleaning / waste disposal

**As the product is fully water soluble and biodegradable, it will not harm sewage-treatment microorganisms if disposal by sewer or drain is necessary. Residues on roads or traffic areas will be slippery - rinse carefully with water. To reduce eventual foam, use a silicone based defoamer or vegetable oil to spray/mist on top of the foam.**

## 7 Safe Handling and Storage

### 7.1 Handling

**No special requirements necessary.  
Do not mix with other products or fill into dirty, uncleaned bottles / containments.**

### 7.2 Fire protection

**No special requirements necessary.  
The product is not flammable.**

### 7.3 Warehousing conditions

**Store in cool, dry conditions in well sealed receptacles.  
Recommended temperature between +5°C and +30°C.  
The product has no shelf-live - however we recommend to use it within 3 years.**

### 7.4 Information about storage in one common strage facility

**Not required.**

### 7.5 Warehousing /storage class:

**n.e.**

## 8 Exposition Limits and Personal Protection

8.1 Technical Precautionary Measures

**None**

8.2 Respiratory Protection

**Look for good ventilation.**

8.3 Skin Protection

**Wear reasonable gloves, if prolonged contact with product or its solutions may be necessary.**

8.4 Eye Protection

**Avoid contact with eyes.**

8.5 Full Body Protection

**Remove contaminated clothing and wash skin below with plenty of water.**

8.6 Hygienic advises

**Do not smoke, drink or eat as you work with the products. Wash your hands after finishing the job.**

8.7 Exposure Limits and other requirements

	Ingredients		CRYSTAL Simple Green
	ml /m3 ppm	mg / m3	mg / m3 (calc.)
<b>The product presents no health hazards to the user when used according to label directions.</b>	<b>0</b>	<b>0</b>	<b>n.e.</b>
	↓	↓	
	↓	↓	

### 9 Physical and Chemical Description / Properties

9.1 Appearance			<b>Liquid</b>
9.2 Colour			<b>dark green</b>
9.3 Odor			<b>perfuemd, sassafra</b>
9.4 Change of condition liquid / solid			<b>-9°C</b>
9.5 boiling point	DIN 51761		<b>100°C</b>
9.6 Density		DIN 51757	<b>1.025 gr/cm3</b>
9.7 Vapor pressure		DIN 51754	<b>18mm Hg 20°C - 23,5mm Hg 25°C</b>
9.8 Viscosity		DIN 51550	<b>&lt; 20 mPa.S.</b>
9.9 Solubility	in water		<b>100 %</b>
	in aceton		<b>n.e.</b>
9.1 pH	100%ig		<b>9,3 - 9,5</b>
	10%ig		<b>8,5 - 9,5</b>
	1%ig		<b>8,0 - 9,0</b>
9.11 Coefficient: n-octanol / water			<b>n.e.</b>
9.12 Flash point		DIN 51755	<b>Non flammable</b>
9.13 Autoignition temperature		DIN 51794	<b>Non flammable</b>
9.14 Explosure limits	lower		<b>n.e.</b>
	upper		<b>n.e.</b>
9.15 Vapor density			<b>1.3 (Air/Luft/Aire = 1)</b>
9.16 Volatile Organic Compounds			<b>ohne/without/sans/senza V.O.C / C.O.V.</b>
9.17 VOC Partial pressure			<b>n.e.</b>

### 10 Stability and Reactivity

10.1 Thermal decomposition / conditions to be avoided:

**No decomposition if used according to specifications.**

10.2 Dangerous reactions

**No dangerous reactions known, even under fire conditions.**

10.3 Dangerous products of decomposition

**No dangerous decomposition products known. The product is stable even under fire conditions and will not react with water or oxidizers. Hazardous polymerisation will not occur.**

## 11 Toxicity

11.1 Acute Mortality Study	DL50 acute oral	13,8 gr/kg (Rat)
	DL50 acute dermal	> 5,0 gr/kg (Rat)

### 11.2 Primary irritant effect

Dermal irritation **Only mild, but reversible, irritation was found in a standard 72-hr test on rabbits. A value of 0.2 (non-irritating) was found on a scale of 8.**

Eye irritation **Mild eye Irritant. With or without rinsing with water, the irritation scores in rabbits at 24 hours did not exceed 15 (mild irritant) on a scale of 110.**

### 11.3 Sensibilisation

**No sensitizing effects known.**

### 11.4 Additional toxicological information

**Detailed reports from independent laboratories are available and proof that Simple Green can be classified as: 'non-toxic'.**

## 12 Environmental Toxicity

### 12.1 Mobility

**Completely soluble in water.**

### 12.2 Persistence and Biodegradability

Crystal SimpleGreen has the same components as Simple Green (Regular) but is manufactured without colour and fragrance. All figures on toxicology and ecology shown are based on the results from SimpleGreen (Regular).

**OECD-302 B-Test (DOC): 97,0% 14 Tage/days, 98,7% 28 Tage/days (ICIM: 21.12.2001) OECD-301 D-Test (BOD/TOD): 100% 28 Tage/days, 87% 15 Tage/days, 57% 5 tage/days ASTM D 2667-70 (BOD/COD): 70% 11 Tage/days, 60% 7 tage/days, 56% 4 Tage/days**

### 12.3 Potential of Bioaccumulation

**No accumulation has been found.**

### 12.4 Marine toxicity

**Water hazard class 1 (German Regulation self-assessment):**

EPA category scheme: LC50 or EC50 description: <0,1 ppm  
 very highly toxic 0,1 - 1,0 ppm  
 highly toxic >1, <10 ppm  
 moderately toxic >10, <100 ppm  
 slightly toxic >100 ppm  
 practically non-toxic

	LC50 96h	EPA Class:
<b>1. SimpleGreen: Juvenile whitebait (G.maculatus) Green lipped Mussel (P. canaliculus) Mud snail (P.estuarinus) Brine shrimp (A. salina) Grass shrimp (P. pugio) Mud minnow (F. heteroclitus) 2.</b>	210 ppm 350 ppm 220 ppm 1574 ppm >600 ppm	practically non-toxic
<b>Rinseate from using SimpleGreen: Rainbow trout (O.mykiss)</b>		

### 12.5 AOX - indicator

**No ozon depleting reactions known. No AOX potential.**

### 12.6 Other information

**Based upon chemical analysis, simpleGreen contains no known EPA priority pollutants, heavy metals, or chemicals listed under RCRA, CERCLA, or CWA. Analysis by TCLP (Toxicity Characteristic Leaching Procedure) according to RCRA revealed no toxic organic or inorganic constituents.**

**SimpleGreen has been approved and listed by the EPA (USEPA, Oil Program Center) on April 23, 1990 and August 30, 1995 as a oil-dispersant and product for cleaning after oil-spills on open water, fresh water, estuarine and marine environments. The recommended concentration is 20%.**

**13 disposal considerations**

13.1 Product

**Original bottled products return to dealer. Smaller quantities may be disposed by sewer-system /drains (see 6.3.)**

13.3 Packaging materials

**Wash containers with water - they may be recycled or applied to other uses.**

**14 Transport information**

14.1 Land transport ADR/RID (cross-border)

ADR/RID class	n.a.	<b>NO DANGEROUS GOODS</b>
Item	n.a.	
Danger code (Kemler)	n.a.	
UN-Number	n.a.	
Label	n.a.	
Description of goods	<b>Solution of surfactants</b>	

14.2 Maritime transport IMDG

IMDG Class	n.a.	<b>NO DANGEROUS GOODS</b>
Page	n.a.	
UN-Number	n.a.	
Packaging group	n.a.	
EMS Number	n.a.	
MFAG	n.a.	
Marine pollutant		
Propper shipping name	<b>Solution of surfactants</b>	

14.3 Air transport ICAO-TI and IATA-DGR

ICAO/IATA-Class	n.a.	<b>NO DANGEROUS GOODS</b>
UN/ID-Number	n.a.	
Packaging group	n.a.	
Propper shipping name	<b>Solution of surfactants</b>	

## 15 Regulations

### 15.1 Markings according to EU guidelines

The product has been classified and marked in accordance with EU directives / ordinance on Hazardous Materials

Code letter and hazard designation of product **n.e.**

Risk phrases

**n.a.** **n.a.**

Safety phrases

**n.a.** **n.a.**

### 15.2 Nationale Vorschriften

AT	Austria	<b>n.a.</b>	<b>ÖBIG-Vergiftungsinformationszentrale 24h Notruf-Nummer: +43 1 515 61</b>
CH	Switzerland	<b>BAG/PFSP/UFSP T 93442</b>	<b>Classification not requested</b>
DE	Germany	<b>UBA Nr. 3251 0003</b>	<b>Classification not requested</b>
CZ	Czech Republic	<b>C 95 247</b>	<b>Classification not requested</b>
DK	Denmark	<b>PR-nr. 1090723</b>	<b>Classification not requested</b>
IS	Iceland	<b>98 - 257</b>	<b>Classification not requested</b>
HU	Hungary	<b>14.06.01</b>	<b>Classification not requested</b>
IL	Israel	<b>KASHRUT CERTIFICATE</b>	<b>Kosher-Certificate - also for Pesach</b>
N	Norway	<b>P- 50957</b>	<b>Classification not requested</b>
S	Sweden	<b>A-nr. 358728- 4</b>	<b>Classification not requested</b>
USA	United States	<b>H:1 F:0 R:0 S:0</b>	<b>HAZCHEM Code: Health = 1 (slight)</b>

## 16 Other Information

16.1 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.

16.2 Changes from the previous version are marked with a black bar on the right side

16.3 Contents are automatically copied from the german version into the other languages.

Est.: Rolf Schmidhäuser 05.12.02