SAFETY DATA SHEET
ZOK 27

1. Identification

Product identifier
Product name ZOK 27

Recommended use of the chemical and restrictions on use

Details of the supplier of the safety data sheet
Supplier Zokman Products Inc.
1220 E. Gump Road
Fort Wayne
IN 46845
USA
+1 800 727 6027
+1 260 637 4038
+1 800 844 3227
+1 260 637 5031
zzokman@aol.com

Manufacturer ZOK International Group
Airworthy House
Elsted Marsh
Midhurst
West Sussex
GU29 0JT
+44 (0) 333 700 2727
zok@zok.com

Emergency telephone number
Emergency telephone CHEMTREC; 24 Hours. (800) 424-9300
National emergency telephone number CHEMTREC; 24 Hours. (800) 424-9300

2. Hazard(s) identification

Classification of the substance or mixture
Physical hazards Not Classified
Health hazards Eye Irrit. 2A - H319

Label elements

Pictogram

Signal word Warning
ZOK 27

Hazard statements
H319 Causes serious eye irritation.

Precautionary statements
P264 Wash contaminated skin thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/ attention.

Other hazards
This product does not contain any substances classified as PBT or vPvB.

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Substance</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isotridecylalcohol, ethoxylated</td>
<td>10-30%</td>
</tr>
<tr>
<td>CAS number: 69011-36-5</td>
<td></td>
</tr>
<tr>
<td>Classification</td>
<td></td>
</tr>
<tr>
<td>Acute Tox. 4 - H302</td>
<td></td>
</tr>
<tr>
<td>Eye Irrit. 2A - H319</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Substance</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-butoxypropan-2-ol</td>
<td>1-5%</td>
</tr>
<tr>
<td>CAS number: 5131-66-8</td>
<td></td>
</tr>
<tr>
<td>Classification</td>
<td></td>
</tr>
<tr>
<td>Skin Irrit. 2 - H315</td>
<td></td>
</tr>
<tr>
<td>Eye Irrit. 2 - H319</td>
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<table>
<thead>
<tr>
<th>Substance</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oleoyl Sarcosinic Acid</td>
<td>1-5%</td>
</tr>
<tr>
<td>CAS number: 110-25-8</td>
<td></td>
</tr>
<tr>
<td>Classification</td>
<td></td>
</tr>
<tr>
<td>Acute Tox. 4 - H332</td>
<td></td>
</tr>
<tr>
<td>Skin Irrit. 2 - H315</td>
<td></td>
</tr>
<tr>
<td>Eye Dam. 1 - H318</td>
<td></td>
</tr>
<tr>
<td>Not relevant.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Substance</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol,2,2'-'[[[(methyl-1H-benzotriazol-1-yl)methyl]imino]bis-(9CI)]</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>CAS number: 80584-88-9</td>
<td></td>
</tr>
<tr>
<td>Classification</td>
<td></td>
</tr>
<tr>
<td>Acute Tox. 4 - H302</td>
<td></td>
</tr>
<tr>
<td>Eye Dam. 1 - H318</td>
<td></td>
</tr>
<tr>
<td>Skin Sens. 1B - H317</td>
<td></td>
</tr>
</tbody>
</table>

The full text for all hazard statements is displayed in Section 16.

4. First-aid measures

Description of first aid measures
**ZOK 27**

**Inhalation**
Move affected person to fresh air at once. Rinse nose and mouth with water. Get medical attention if any discomfort continues.

**Ingestion**
Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention if any discomfort continues.

**Skin Contact**
Remove affected person from source of contamination. Take off immediately all contaminated clothing and wash it before reuse. Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing.

**Eye contact**
Remove affected person from source of contamination. Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing. Show this Safety Data Sheet to the medical personnel.

**Most important symptoms and effects, both acute and delayed**

**Inhalation**
Vapors may irritate throat/respiratory system. Symptoms following overexposure to vapor may include the following: Coughing, chest tightness, feeling of chest pressure.

**Ingestion**
May cause stomach pain or vomiting.

**Skin contact**
Prolonged contact may cause redness, irritation and dry skin.

**Eye contact**
Irritating to eyes. Symptoms following overexposure may include the following: Redness. Pain.

**Indication of immediate medical attention and special treatment needed**
Specific treatments
Treat symptomatically.

**5. Fire-fighting measures**

**Extinguishing media**

**Suitable extinguishing media**
The product is not flammable. Use fire-extinguishing media suitable for the surrounding fire. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

**Special hazards arising from the substance or mixture**

**Specific hazards**
None known.

**Hazardous combustion products**
Carbon monoxide (CO). Carbon dioxide (CO2).

**Advice for firefighters**

**Protective actions during firefighting**
No specific firefighting precautions known.

**Special protective equipment for firefighters**
Use air-supplied respirator, gloves and protective goggles.

**6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions**
Wear protective clothing as described in Section 8 of this safety data sheet.

**Environmental precautions**
Avoid discharge to the aquatic environment. Collect and dispose of spillage as indicated in Section 13.
ZOK 27

Methods for cleaning up

Stop leak if safe to do so. Small Spillages: Absorb spillage with non-combustible, absorbent material. Collect and place in suitable waste disposal containers and seal securely. Flush contaminated area with plenty of water. Collect and dispose of spillage as indicated in Section 13. Large Spillages: Contain and absorb spillage with sand, earth or other non-combustible material. Collect and place in suitable waste disposal containers and seal securely. Flush contaminated area with plenty of water. Collect and dispose of spillage as indicated in Section 13.

Reference to other sections
For personal protection, see Section 8. For waste disposal, see Section 13.

7. Handling and storage

Precautions for safe handling

Usage precautions
Avoid spilling. Avoid contact with skin and eyes.

Conditions for safe storage, including any incompatibilities

Storage precautions
Store at temperatures between 4°C and 50°C. Store in tightly-closed, original container. Store in a dry place.

Storage class
Chemical storage.

Specific end use(s)

Specific end use(s)
The identified uses for this product are detailed in Section 1.

8. Exposure controls/Personal protection

Triethanolamine (CAS: 102-71-6)

Ingredient comments
No exposure limits known for ingredient(s).

Exposure controls

Protective equipment

Appropriate engineering controls
Provide adequate ventilation. Observe any occupational exposure limits for the product or ingredients. Avoid inhalation of vapors and spray/mists.

Eye/face protection
Wear chemical splash goggles.

Hand protection
Wear protective gloves made of the following material: Nitrile rubber.

Other skin and body protection
Wear appropriate clothing to prevent any possibility of skin contact.

Hygiene measures
Do not smoke in work area. Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly with soap and water if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. Use appropriate hand lotion to prevent defatting and cracking of skin. When using do not eat, drink or smoke.

Respiratory protection
Respiratory protection may be required if excessive airborne contamination occurs. Use approved respirator if air contamination is above an acceptable level. Wear a respirator fitted with the following cartridge: Organic vapor filter.

9. Physical and chemical properties

Information on basic physical and chemical properties
ZOK 27

**Appearance**  
Liquid.

**Color**  
Colorless to pale yellow.

**Odor**  
Characteristic.

**Odor threshold**  
Not applicable.

**pH**  
P(H (concentrated solution): 7.2-7.5

**Melting point**  
0°C

**Initial boiling point and range**  
100°C @ 760 mm Hg

**Flash point**  
> 100°C Pensky-Martens closed cup.

**Evaporation rate**  
Not applicable.

**Flammability (solid, gas)**  
Not relevant.

**Upper/lower flammability or explosive limits**  
Lower flammable/explosive limit: Not applicable. Upper flammable/explosive limit: Not applicable.

**Vapor pressure**  
Not relevant.

**Vapor density**  
Not relevant.

**Relative density**  
1.01 @ 20°C

**Solubility(ies)**  
Miscible with water.

**Partition coefficient**  
log Pow: < 3

**Auto-ignition temperature**  
Not relevant.

**Decomposition Temperature**  
Not applicable.

**Viscosity**  
10.44 cSt @ 20°C

**Explosive properties**  
Not considered to be explosive.

**Oxidizing properties**  
The mixture itself has not been tested but none of the ingredient substances meet the criteria for classification as oxidizing.

**Volatile organic compound**  
This product contains a maximum VOC content of 50 g/L. Average VOC content: 41.2 g/L

10. Stability and reactivity

**Reactivity**  
There are no known reactivity hazards associated with this product.

**Stability**  
Stable at normal ambient temperatures and when used as recommended.

**Possibility of hazardous reactions**  
No potentially hazardous reactions known.

**Conditions to avoid**  
Avoid excessive heat for prolonged periods of time.

**Materials to avoid**  
Strong oxidizing agents. Strong reducing agents.

**Hazardous decomposition products**  
Heating may generate the following products: Carbon monoxide (CO). Carbon dioxide (CO2).

11. Toxicological information

**Information on toxicological effects**
ZOK 27

**Acute toxicity - oral**
ATE oral (mg/kg) 4,508.57

**Acute toxicity - inhalation**
ATE inhalation (dusts/mists mg/l) 84.05

**Serious eye damage/irritation**
Causes serious eye irritation.

**Skin sensitization**
May cause sensitisation by skin contact.

**Germ cell mutagenicity**
Does not contain any substances known to be mutagenic.

**Genotoxicity - in vitro**
Does not contain any substances known to be mutagenic.

**Genotoxicity - in vivo**
Does not contain any substances known to be mutagenic.

**Carcinogenicity**
Does not contain any substances known to be carcinogenic.

**Reproductive toxicity**
Does not contain any substances known to be toxic to reproduction.

**Specific target organ toxicity - single exposure**
No specific target organs known.

**Specific target organ toxicity - repeated exposure**
No specific target organs known.

**Toxicological information on ingredients.**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Acute toxicity - oral</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isotridecylalcohol, ethoxylated</td>
<td>ATE oral (mg/kg) 500.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Acute toxicity oral (LD₅₀ mg/kg)</th>
<th>Species</th>
<th>ATE oral (mg/kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-butoxypropan-2-ol</td>
<td>2,100.0</td>
<td>Rat</td>
<td>2,100.0</td>
</tr>
</tbody>
</table>
ZOK 27

Oleoyl Sarcosinic Acid

**Acute toxicity - oral**

Acute toxicity oral (LD₅₀ mg/kg) 9,200.0
Species Rat
ATE oral (mg/kg) 9,200.0

**Acute toxicity - inhalation**

Acute toxicity inhalation (LC₅₀ dust/mist mg/l) 1.37
Species Rat
ATE inhalation (dusts/mists mg/l) 1.37

12. Ecological information

<table>
<thead>
<tr>
<th>Ecotoxicity</th>
<th>Not regarded as dangerous for the environment.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute aquatic toxicity</td>
<td></td>
</tr>
<tr>
<td>Acute toxicity - fish</td>
<td>LC₅₀, 96 hours: 33 mg/l, Marinewater fish</td>
</tr>
<tr>
<td></td>
<td>EC₅₀, 96 hours: &gt;0.02 %, Pimephales promelas (Fat-head Minnow)</td>
</tr>
<tr>
<td>Acute toxicity - aquatic invertebrates</td>
<td>EC₅₀, 48 hours: &gt;0.01 %, Daphnia magna</td>
</tr>
<tr>
<td>Acute toxicity - aquatic plants</td>
<td>EC₅₀, 72 hours: 8.1 mg/l, Marinewater algae</td>
</tr>
<tr>
<td>Acute toxicity - microorganisms</td>
<td>LC₅₀, 10 days: 1267 mg/kg, Activated sludge</td>
</tr>
</tbody>
</table>

**Persistence and degradability**

Persistence and degradability The product is biodegradable but it must not be discharged into drains without permission from the authorities.

Biodegradation Inherently biodegradable.

Biological oxygen demand < 0.1 g O₂/g substance

Chemical oxygen demand < 8.5 g O₂/g substance

Bioaccumulative potential The product does not contain any substances expected to be bioaccumulating.

Partition coefficient log Pow: < 3

Mobility in soil

Mobility The product is miscible with water and may spread in water systems.

Other adverse effects

Other adverse effects None known.

13. Disposal considerations

Waste treatment methods
ZOK 27

General information
Waste should be treated as controlled waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Disposal methods
Collect and place in suitable waste disposal containers and seal securely. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

14. Transport information

General
The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DOT).

UN Number
UN No. (International) Not applicable.

UN proper shipping name
Proper shipping name (International) Not applicable.

Transport hazard class(es)
Transport Labels (International) No transport warning sign required.

Packing group
Packing group (International) Not applicable.

Environmental hazards
Environmentally Hazardous Substance No.

Special precautions for user
Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable.

15. Regulatory information

National regulations

Guidance
Workplace Exposure Limits EH40.

US Federal Regulations
SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities Not listed.

SARA 313 Emission Reporting
Not listed.

CAA Accidental Release Prevention
Not listed.

US State Regulations
ZOK 27

California Proposition 65 Carcinogens and Reproductive Toxins
This product does not contain any substances known to the State of California to cause cancer, birth defects or other reproductive harm.

California Air Toxics "Hot Spots" (A-I)
Not listed.

California Air Toxics "Hot Spots" (A-II)
Not listed.

Rhode Island "Right To Know" List
Not listed.

New Jersey "Right To Know" List
Not listed.

Inventories
EU - EINECS/ELINCS
All the ingredients are listed or exempt.

Canada - DSL/NDSL
All the ingredients are listed or exempt.

US - TSCA
All the ingredients are listed or exempt.

Australia - AICS
All the ingredients are listed or exempt.

Japan - ENCS
All the ingredients are listed or exempt.

Korea - KECI
All the ingredients are listed or exempt.

China - IECSC
All the ingredients are listed or exempt.

Philippines - PICCS
All the ingredients are listed or exempt.

New Zealand - NZIOC
All the ingredients are listed or exempt.

16. Other information

General information
Only trained personnel should use this material.

Issued by
Craig Appleby - Chemist

Revision date
2/1/2019

Revision
1023

Supersedes date
3/22/2018

SDS No.
4524

SDS status
Approved.
### ZOK 27

| Hazard statements in full | H302 Harmful if swallowed.  
|                          | H315 Causes skin irritation.  
|                          | H317 May cause an allergic skin reaction.  
|                          | H318 Causes serious eye damage.  
|                          | H319 Causes serious eye irritation.  
|                          | H332 Harmful if inhaled.  
| Signature                | Craig Appleby  
| NFPA - health hazard     | Irritation, minor residual injury. (1)  
| NFPA - flammability hazard | Will not burn. (0)  
| NFPA - instability hazard | Normally stable. (0)  
| ACA HMIS Health rating.  | Slight hazard. (1)  
| ACA HMIS Flammability rating. | Will not burn. (0)  
| ACA HMIS Physical hazard rating. | Normally stable. (0)  
| ACA HMIS Personal protection rating. | A  

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.