



## SAFETY DATA SHEET ZOK 27

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product name ZOK 27

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Cleaning compound, turbine engine gas path. Corrosion inhibitor.

#### 1.3. Details of the supplier of the safety data sheet

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

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

#### 1.4. Emergency telephone number

Emergency telephone +44 333 700 2727 (Mon-Fri 08:30 - 17:00 GMT)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Eye Irrit. 2 - H319

Environmental hazards Not Classified

#### 2.2. Label elements

##### Hazard pictograms



Signal word Warning

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<b>Hazard statements</b>	EUH208 Contains Ethanol,2,2'-[[[(methyl-1H-benzotriazol-1-yl)methyl]imino]bis-(9CI). May produce an allergic reaction. H319 Causes serious eye irritation.
<b>Precautionary statements</b>	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.
<b>Detergent labelling</b>	5 - < 15% non-ionic surfactants, < 5% anionic surfactants

### 2.3. Other hazards

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

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

<b>Isotridecylalcohol, ethoxylated</b>	<b>10-30%</b>
CAS number: 69011-36-5	
<b>Classification</b> Acute Tox. 4 - H302 Eye Irrit. 2 - H319	
<b>3-butoxypropan-2-ol</b>	<b>1-5%</b>
CAS number: 5131-66-8	EC number: 225-878-4
	REACH registration number: 01-2119475527-28-XXXX
<b>Classification</b> Skin Irrit. 2 - H315 Eye Irrit. 2 - H319	
<b>Oleoyl Sarcosinic Acid</b>	<b>1-5%</b>
CAS number: 110-25-8	EC number: 203-749-3
	REACH registration number: 01-2119488991-20-XXXX
M factor (Acute) = 1	
<b>Classification</b> Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Dam. 1 - H318 Aquatic Acute 1 - H400	

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<b>Ethanol,2,2'-[[methyl-1H-benzotriazol-1-yl)methyl]imino]bis-(9CI)</b>	<b>&lt;1%</b>
CAS number: 80584-88-9	EC number: 279-501-3
	REACH registration number: 01-2119982397-21-XXXX
<b>Classification</b>	
Acute Tox. 4 - H302	
Eye Dam. 1 - H318	
Skin Sens. 1B - H317	

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

**Ingredient notes** Ethanol,2,2'-[[methyl-1H-benzotriazol-1-yl)methyl]imino]bis-(9CI) CAS no. 80584-88-9 / 88477-37-6

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

<b>Inhalation</b>	Move affected person to fresh air at once. Rinse nose and mouth with water. Get medical attention if any discomfort continues.
<b>Ingestion</b>	Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention if any discomfort continues.
<b>Skin contact</b>	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.
<b>Eye contact</b>	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.

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

<b>Inhalation</b>	Vapours may irritate throat/respiratory system. Symptoms following overexposure to vapour may include the following: Coughing, chest tightness, feeling of chest pressure.
<b>Ingestion</b>	May cause stomach pain or vomiting.
<b>Skin contact</b>	Prolonged contact may cause redness, irritation and dry skin.
<b>Eye contact</b>	Irritating to eyes. Symptoms following overexposure may include the following: Redness. Pain.

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

**Specific treatments** Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. 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.

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

<b>Specific hazards</b>	None known.
<b>Hazardous combustion products</b>	Carbon monoxide (CO). Carbon dioxide (CO <sub>2</sub> ).

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### 5.3. 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.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

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

### 6.2. Environmental precautions

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

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

**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.

### 6.4. Reference to other sections

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

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

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

### 7.2. 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.

### 7.3. Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

## SECTION 8: Exposure controls/Personal protection

### 8.1. Control parameters

#### Occupational exposure limits

#### **Dipropyleneglycol Methyl Ether**

Long-term exposure limit (8-hour TWA): WEL 50 ppm 308 mg/m<sup>3</sup> vapour

WEL = Workplace Exposure Limit

#### Triethanolamine (CAS: 102-71-6)

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

### 8.2. Exposure controls

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### Protective equipment



#### Appropriate engineering controls

Provide adequate ventilation. Observe any occupational exposure limits for the product or ingredients. Avoid inhalation of vapours 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 vapour filter.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Colourless to pale yellow.
Odour	Characteristic.
Odour threshold	Not applicable.
pH	pH (concentrated solution): 7.2-7.5
Melting point	0°C
Initial boiling point and range	100°C @ 760 mm Hg
Flash point	> 100°C Pinsky-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.
Vapour pressure	Not relevant.
Vapour 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

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<b>Explosive properties</b>	Not considered to be explosive.
<b>Oxidising properties</b>	The mixture itself has not been tested but none of the ingredient substances meet the criteria for classification as oxidising.

### 9.2. Other information

<b>Volatile organic compound</b>	This product contains a maximum VOC content of 50 g/L. Average VOC content: 41.2 g/L
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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

<b>Reactivity</b>	There are no known reactivity hazards associated with this product.
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### 10.2. Chemical stability

<b>Stability</b>	Stable at normal ambient temperatures and when used as recommended.
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### 10.3. Possibility of hazardous reactions

<b>Possibility of hazardous reactions</b>	No potentially hazardous reactions known.
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### 10.4. Conditions to avoid

<b>Conditions to avoid</b>	Avoid excessive heat for prolonged periods of time.
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### 10.5. Incompatible materials

<b>Materials to avoid</b>	Strong oxidising agents. Strong reducing agents.
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### 10.6. Hazardous decomposition products

<b>Hazardous decomposition products</b>	Heating may generate the following products: Carbon monoxide (CO). Carbon dioxide (CO <sub>2</sub> ).
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## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity - oral

<b>ATE oral (mg/kg)</b>	4,508.57
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#### Acute toxicity - inhalation

<b>ATE inhalation (dusts/mists mg/l)</b>	84.05
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#### Serious eye damage/irritation

<b>Serious eye damage/irritation</b>	Causes serious eye irritation.
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#### Skin sensitisation

<b>Skin sensitisation</b>	May cause sensitisation by skin contact.
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#### Germ cell mutagenicity

<b>Genotoxicity - in vitro</b>	Does not contain any substances known to be mutagenic.
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<b>Genotoxicity - in vivo</b>	Does not contain any substances known to be mutagenic.
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#### Carcinogenicity

<b>Carcinogenicity</b>	Does not contain any substances known to be carcinogenic.
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#### Reproductive toxicity

<b>Reproductive toxicity - fertility</b>	Does not contain any substances known to be toxic to reproduction.
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**Reproductive toxicity - development** Does not contain any substances known to be toxic to reproduction.

### Specific target organ toxicity - single exposure

**Target organs** No specific target organs known.

### Specific target organ toxicity - repeated exposure

**Target organs** No specific target organs known.

### Toxicological information on ingredients.

#### Isotridecylalcohol, ethoxylated

##### Acute toxicity - oral

**ATE oral (mg/kg)** 500.0

##### Serious eye damage/irritation

**Serious eye damage/irritation** Irritation of eyes is assumed.

##### Respiratory sensitisation

**Respiratory sensitisation** Not known.

##### Skin sensitisation

**Skin sensitisation** Not known.

#### 3-butoxypropan-2-ol

##### Acute toxicity - oral

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 2,100.0

**Species** Rat

**ATE oral (mg/kg)** 2,100.0

#### Oleoyl Sarcosinic Acid

##### Acute toxicity - oral

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 9,200.0

**Species** Rat

**ATE oral (mg/kg)** 9,200.0

##### Acute toxicity - inhalation

**Acute toxicity inhalation (LC<sub>50</sub> dust/mist mg/l)** 1.37

**Species** Rat

**ATE inhalation (dusts/mists mg/l)** 1.37

## SECTION 12: Ecological information

**Ecotoxicity** Not regarded as dangerous for the environment.

### 12.1. Toxicity

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### Acute aquatic toxicity

<b>Acute toxicity - fish</b>	LC <sub>50</sub> , 96 hours: 33 mg/l, Marinewater fish EC <sub>50</sub> , 96 hours: >0.02 %, Pimephales promelas (Fat-head Minnow)
<b>Acute toxicity - aquatic invertebrates</b>	EC <sub>50</sub> , 48 hours: >0.01 %, Daphnia magna
<b>Acute toxicity - aquatic plants</b>	EC <sub>50</sub> , 72 hours: 8.1 mg/l, Marinewater algae
<b>Acute toxicity - microorganisms</b>	LC <sub>50</sub> , 10 days: 1267 mg/kg, Activated sludge

### 12.2. Persistence and degradability

<b>Persistence and degradability</b>	The surfactant(s) contained in this product complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. The product is biodegradable but it must not be discharged into drains without permission from the authorities.
<b>Biodegradation</b>	The substance is readily biodegradable.
<b>Biological oxygen demand</b>	< 0.1 g O <sub>2</sub> /g substance
<b>Chemical oxygen demand</b>	< 8.5 g O <sub>2</sub> /g substance

### 12.3. Bioaccumulative potential

<b>Bioaccumulative potential</b>	The product does not contain any substances expected to be bioaccumulating.
<b>Partition coefficient</b>	log Pow: < 3

### 12.4. Mobility in soil

<b>Mobility</b>	The product is miscible with water and may spread in water systems.
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### 12.5. Results of PBT and vPvB assessment

<b>Results of PBT and vPvB assessment</b>	This product does not contain any substances classified as PBT or vPvB.
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### 12.6. Other adverse effects

<b>Other adverse effects</b>	None known.
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## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

<b>General information</b>	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.
<b>Disposal methods</b>	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.

## SECTION 14: Transport information

<b>General</b>	The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).
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### 14.1. UN number

Not applicable.

### 14.2. UN proper shipping name

Not applicable.



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### 14.3. Transport hazard class(es)

No transport warning sign required.

### 14.4. Packing group

Not applicable.

### 14.5. Environmental hazards

#### **Environmentally hazardous substance/marine pollutant**

No.

### 14.6. Special precautions for user

Not applicable.

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

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

Not applicable.

## SECTION 15: Regulatory information

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

<b>National regulations</b>	The surfactant(s) contained in this product complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).
<b>EU legislation</b>	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 (as amended). 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) (as amended).
<b>Guidance</b>	Workplace Exposure Limits EH40.
<b>Authorisations (Annex XIV Regulation 1907/2006)</b>	No specific authorisations are known for this product.
<b>Restrictions (Annex XVII Regulation 1907/2006)</b>	No specific restrictions on use are known for this product.

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

#### 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.

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### 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.

## SECTION 16: Other information

<b>General information</b>	Only trained personnel should use this material.
<b>Classification procedures according to Regulation (EC) 1272/2008</b>	Eye Irrit. 2 - H319: Calculation method.
<b>Issued by</b>	Craig Appleby - Chemist
<b>Revision date</b>	08/06/2020
<b>Revision</b>	1024
<b>Supersedes date</b>	01/02/2019
<b>SDS number</b>	4524
<b>SDS status</b>	Approved.
<b>Hazard statements in full</b>	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. H400 Very toxic to aquatic life. H412 Harmful to aquatic life with long lasting effects. EUH208 Contains Ethanol,2,2'-[[[(methyl-1H-benzotriazol-1-yl)methyl]imino]bis-(9CI)]. May produce an allergic reaction.
<b>Signature</b>	Craig Appleby

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