



## SAFETY DATA SHEET ZOK 27 GOLD STANDARD

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

#### 1.1. Product identifier

**Product name** ZOK 27 GOLD STANDARD

#### 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** OHES Environmental; 24 Hours. +44 (0) 333 333 9964

### SECTION 2: Hazards identification

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

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

**Physical hazards** Not Classified

**Health hazards** Eye Dam. 1 - H318

**Environmental hazards** Not Classified

#### 2.2. Label elements

##### Pictogram



**Signal word** Danger

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<b>Hazard statements</b>	EUH208 Contains Ethanol,2,2'-[[[(methyl-1H-benzotriazol-1-yl)methyl]imino]bis-(9Cl). May produce an allergic reaction. H318 Causes serious eye damage.
<b>Precautionary statements</b>	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. P310 Immediately call a POISON CENTER/ doctor.
<b>Contains</b>	C6 Alkyl glucoside, 2-Propylheptanol ethoxylate
<b>Detergent labelling</b>	5 - < 15% non-ionic 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>C6 Alkyl glucoside</b>	<b>10-30%</b>
CAS number: 54549-24-5	EC number: 259-217-6
	REACH registration number: 01-2119492545-29-XXXX
<b>Classification</b>	
Eye Dam. 1 - H318	
<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>2-Propylheptanol ethoxylate</b>	<b>1-5%</b>
CAS number: 160875-66-1	
<b>Classification</b>	
Eye Dam. 1 - H318	

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

## 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.

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**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.

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

**Inhalation** Vapours may irritate throat/respiratory system. Symptoms following overexposure to vapour 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** This product is corrosive. May cause serious eye damage. 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

**Specific hazards** None known.

**Hazardous combustion products** Thermal decomposition or combustion products may include the following substances: Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

### 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. Contain spillage with sand, earth or other suitable non-combustible material.

### 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.

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### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

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

#### 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

##### Dipropylene glycol Methyl Ether

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

WEL = Workplace Exposure Limit

##### C6 Alkyl glucoside (CAS: 54549-24-5)

<b>DNEL</b>	Workers - Dermal; Long term systemic effects: 595000 mg/kg/day Workers - Inhalation; Long term systemic effects: 420 mg/m <sup>3</sup> Consumer - Dermal; Long term systemic effects: 357000 mg/kg/day Consumer - Inhalation; Long term systemic effects: 124 mg/m <sup>3</sup> Consumer - Oral; Long term systemic effects: 35.7 mg/kg/day
<b>PNEC</b>	- Fresh water; 0.1 mg/l - marine water; 0.01 mg/l - STP; 100 mg/l - Sediment (Freshwater); 0.410 mg/kg - Sediment (Marinewater); 0.0410 mg/kg - Soil; 0.654 mg/kg

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

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

#### 8.2. Exposure controls

##### 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.

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<b>Hygiene measures</b>	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.
<b>Respiratory protection</b>	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

<b>Appearance</b>	Liquid.
<b>Colour</b>	Amber.
<b>Odour</b>	Characteristic.
<b>Odour threshold</b>	Not available.
<b>pH</b>	pH (concentrated solution): 7.1-7.6
<b>Melting point</b>	>0°C
<b>Initial boiling point and range</b>	100°C @ 760 mm Hg
<b>Flash point</b>	> 100°C Pensky-Martens closed cup.
<b>Evaporation rate</b>	Not applicable.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	Not known.
<b>Vapour pressure</b>	Not applicable.
<b>Vapour density</b>	Not applicable.
<b>Relative density</b>	1.03 @ 20°C
<b>Solubility(ies)</b>	Soluble in water.
<b>Partition coefficient</b>	log Pow: < 3
<b>Auto-ignition temperature</b>	Not applicable.
<b>Decomposition Temperature</b>	Not applicable.
<b>Viscosity</b>	9.8 cSt @ 20°C
<b>Explosive properties</b>	Not considered to be explosive.
<b>Oxidising properties</b>	Does not 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.
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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

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

### 10.4. Conditions to avoid

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

### 10.5. Incompatible materials

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

### 10.6. Hazardous decomposition products

**Hazardous decomposition products** Heating may generate the following products: Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Serious eye damage/irritation

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

#### Germ cell mutagenicity

**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

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

#### Reproductive toxicity

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

**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.

#### C6 Alkyl glucoside

##### Serious eye damage/irritation

**Serious eye damage/irritation** May cause serious eye damage.

##### Respiratory sensitisation

**Respiratory sensitisation** Not sensitising.

##### Skin sensitisation

**Skin sensitisation** Not sensitising.

##### Germ cell mutagenicity

**Genotoxicity - in vitro** This substance has no evidence of mutagenic properties.

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<b>Inhalation</b>	May cause respiratory system irritation.
<b>Ingestion</b>	May cause irritation.
<b>Skin contact</b>	May cause irritation.
<b>Eye contact</b>	May cause serious eye damage.

### 3-butoxypropan-2-ol

#### Acute toxicity - oral

<b>Acute toxicity oral (LD<sub>50</sub> mg/kg)</b>	2,100.0
<b>Species</b>	Rat
<b>ATE oral (mg/kg)</b>	2,100.0

### Triethanolamine

#### Acute toxicity - oral

<b>Acute toxicity oral (LD<sub>50</sub> mg/kg)</b>	5,000.0
<b>Species</b>	Rat
<b>ATE oral (mg/kg)</b>	5,000.0

<b>Inhalation</b>	May cause respiratory system irritation.
<b>Ingestion</b>	May cause discomfort if swallowed.
<b>Skin contact</b>	Liquid may irritate skin.
<b>Eye contact</b>	Vapour or spray in the eyes may cause irritation and smarting.

### 2-Propylheptanol ethoxylate

#### Acute toxicity - oral

<b>Acute toxicity oral (LD<sub>50</sub> mg/kg)</b>	2,001.0
<b>Species</b>	Rat
<b>ATE oral (mg/kg)</b>	2,001.0

#### Acute toxicity - dermal

<b>Acute toxicity dermal (LD<sub>50</sub> mg/kg)</b>	2,001.0
<b>Species</b>	Rat
<b>ATE dermal (mg/kg)</b>	2,001.0

#### Acute toxicity - inhalation

<b>Acute toxicity inhalation (LC<sub>50</sub> vapours mg/l)</b>	21.0
<b>Species</b>	Rat

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<b>ATE inhalation (vapours mg/l)</b>	21.0
<b><u>Germ cell mutagenicity</u></b>	
<b>Genotoxicity - in vitro</b>	Negative.
<b>Genotoxicity - in vivo</b>	Negative.
<b><u>Specific target organ toxicity - repeated exposure</u></b>	
<b>STOT - repeated exposure</b>	NOAEL 250 mg/kg, ,
.	
<b>Inhalation</b>	May cause respiratory system irritation.
<b>Ingestion</b>	May cause irritation.
<b>Skin contact</b>	May cause irritation.
<b>Eye contact</b>	May cause serious eye damage.

### SECTION 12: Ecological information

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

#### Ecological information on ingredients.

##### Triethanolamine

**Ecotoxicity** The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.

##### 2-Propylheptanol ethoxylate

**Ecotoxicity** Not known.

#### 12.1. Toxicity

#### Ecological information on ingredients.

##### C6 Alkyl glucoside

##### Acute aquatic toxicity

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: >100 mg/l, Oncorhynchus mykiss (Rainbow trout)

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 48 hours: >100 mg/l, Daphnia magna

**Acute toxicity - aquatic plants** EC<sub>50</sub>, 72 hours: >100 mg/l, Algae

##### Triethanolamine

##### Acute aquatic toxicity

**Acute toxicity - fish** Not considered toxic to fish.

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 48 hours: >2500 mg/l, Daphnia magna

**Acute toxicity - aquatic plants** IC<sub>50</sub>, 72 hours: 216 mg/l, Algae  
EC<sub>50</sub>, 72 hours: >1000 mg/l, Marinewater algae



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### 2-Propylheptanol ethoxylate

#### Acute aquatic toxicity

<b>Acute toxicity - fish</b>	LC <sub>50</sub> , 96 hours: >10-100 mg/l, Fish
<b>Acute toxicity - aquatic invertebrates</b>	EC <sub>50</sub> , 48 hours: >10-100 mg/l, Daphnia magna
<b>Acute toxicity - aquatic plants</b>	EC <sub>50</sub> , 72 hours: >10-100 mg/l, Algae

### 12.2. Persistence and degradability

**Persistence and degradability** The product is readily biodegradable.

#### Ecological information on ingredients.

#### C6 Alkyl glucoside

<b>Persistence and degradability</b>	The product is readily biodegradable.
<b>Biodegradation</b>	Water - Degradation >70%: 28 days
<b>Biological oxygen demand</b>	No specific test data are available.

#### Triethanolamine

<b>Persistence and degradability</b>	The product is readily biodegradable.
<b>Biodegradation</b>	Water - Degradation 56.9%: 28 days
<b>Biological oxygen demand</b>	0.85 g O <sub>2</sub> /g substance
<b>Chemical oxygen demand</b>	< 1.5 g O <sub>2</sub> /g substance

### 2-Propylheptanol ethoxylate

<b>Biodegradation</b>	The substance is readily biodegradable. Water - Degradation >60%:
<b>Biological oxygen demand</b>	No specific test data are available.

### 12.3. Bioaccumulative potential

**Partition coefficient** log Pow: < 3

#### Ecological information on ingredients.

#### C6 Alkyl glucoside

<b>Bioaccumulative potential</b>	The product does not contain any substances expected to be bioaccumulating.
<b>Partition coefficient</b>	log Pow: < 2

#### Triethanolamine

<b>Bioaccumulative potential</b>	The product is not bioaccumulating.
<b>Partition coefficient</b>	log Kow: ~ -2.3 log Pow: < 1

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### 2-Propylheptanol ethoxylate

**Bioaccumulative potential** The product is not bioaccumulating.

**Partition coefficient** No information available.

#### 12.4. Mobility in soil

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

#### Ecological information on ingredients.

##### C6 Alkyl glucoside

**Mobility** The product is soluble in water. Mobile.

##### Triethanolamine

**Mobility** The product is soluble in water.

##### 2-Propylheptanol ethoxylate

**Mobility** No data available.

#### 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment** This product does not contain any substances classified as PBT or vPvB.

#### Ecological information on ingredients.

##### C6 Alkyl glucoside

**Results of PBT and vPvB assessment** This product does not contain any substances classified as PBT or vPvB.

##### Triethanolamine

**Results of PBT and vPvB assessment** This product does not contain any substances classified as PBT or vPvB.

##### 2-Propylheptanol ethoxylate

**Results of PBT and vPvB assessment** This product does not contain any substances classified as PBT or vPvB.

#### 12.6. Other adverse effects

### **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

**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.

### **SECTION 14: Transport information**

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

### 14.1. UN number

Not applicable.

### 14.2. UN proper shipping name

Not applicable.

### 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** Not applicable.

**Annex II of MARPOL 73/78  
and the IBC Code**

## SECTION 15: Regulatory information

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

**National regulations** The surfactant(s) contained in this product complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents.

**EU legislation** 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).

**Guidance** Workplace Exposure Limits EH40.

**Authorisations (Title VII  
Regulation 1907/2006)** No specific authorisations are known for this product.

**Restrictions (Title VIII  
Regulation 1907/2006)** 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.

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### 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.

## 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 Dam. 1 - H318: Calculation method.
<b>Issued by</b>	Craig Appleby - Chemist
<b>Revision date</b>	01/02/2019
<b>Revision</b>	3012
<b>Supersedes date</b>	22/03/2018
<b>SDS number</b>	4527
<b>SDS status</b>	Approved.
<b>Hazard statements in full</b>	H315 Causes skin irritation. H318 Causes serious eye damage. H319 Causes serious eye irritation. EUH208 Contains Ethanol,2,2'-[[[(methyl-1H-benzotriazol-1-yl)methyl]imino]bis-(9Cl)]. May produce an allergic reaction.
<b>Signature</b>	Craig Appleby

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