



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 +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 Dam. 1 - H318
Environmental hazards Not Classified

2.2. Label elements

Hazard pictograms



Signal word Danger

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Hazard statements	EUH208 Contains Ethanol,2,2'-[[[(methyl-1H-benzotriazol-1-yl)methyl]imino]bis-(9Cl). May produce an allergic reaction. H318 Causes serious eye damage.
Precautionary statements	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.
Contains	C6 Alkyl glucoside, 2-Propylheptanol ethoxylate
Detergent labelling	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

C6 Alkyl glucoside	10-30%
CAS number: 54549-24-5	EC number: 259-217-6
	REACH registration number: 01-2119492545-29-XXXX

Classification

Eye Dam. 1 - H318

3-butoxypropan-2-ol	1-5%
CAS number: 5131-66-8	EC number: 225-878-4
	REACH registration number: 01-2119475527-28-XXXX

Classification

Skin Irrit. 2 - H315

Eye Irrit. 2 - H319

2-Propylheptanol ethoxylate	1-5%
CAS number: 160875-66-1	

Classification

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

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.

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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 (CO₂).

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/m³ vapour

WEL = Workplace Exposure Limit

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

DNEL	Workers - Dermal; Long term systemic effects: 595000 mg/kg/day Workers - Inhalation; Long term systemic effects: 420 mg/m ³ Consumer - Dermal; Long term systemic effects: 357000 mg/kg/day Consumer - Inhalation; Long term systemic effects: 124 mg/m ³ Consumer - Oral; Long term systemic effects: 35.7 mg/kg/day
PNEC	- 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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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	Amber.
Odour	Characteristic.
Odour threshold	Not available.
pH	pH (concentrated solution): 7.1-7.6
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 applicable.
Upper/lower flammability or explosive limits	Not known.
Vapour pressure	Not applicable.
Vapour density	Not applicable.
Relative density	1.03 @ 20°C
Solubility(ies)	Soluble in water.
Partition coefficient	log Pow: < 3
Auto-ignition temperature	Not applicable.
Decomposition Temperature	Not applicable.
Viscosity	9.8 cSt @ 20°C
Explosive properties	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

Volatile organic compound	This product contains a maximum VOC content of <50 g/l.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.
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10.2. Chemical stability

Stability	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 (CO₂).

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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Inhalation	May cause respiratory system irritation.
Ingestion	May cause irritation.
Skin contact	May cause irritation.
Eye contact	May cause serious eye damage.

3-butoxypropan-2-ol

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg)	2,100.0
Species	Rat
ATE oral (mg/kg)	2,100.0

Triethanolamine

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg)	5,000.0
Species	Rat
ATE oral (mg/kg)	5,000.0

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

2-Propylheptanol ethoxylate

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg)	2,001.0
Species	Rat
ATE oral (mg/kg)	2,001.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg)	2,001.0
Species	Rat
ATE dermal (mg/kg)	2,001.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l)	21.0
Species	Rat

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ATE inhalation (vapours mg/l)	21.0
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	Negative.
Genotoxicity - in vivo	Negative.
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	NOAEL 250 mg/kg, ,
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Inhalation	May cause respiratory system irritation.
Ingestion	May cause irritation.
Skin contact	May cause irritation.
Eye contact	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 LC₅₀, 96 hours: >100 mg/l, Oncorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: >100 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 72 hours: >100 mg/l, Algae

Triethanolamine

Acute aquatic toxicity

Acute toxicity - fish Not considered toxic to fish.

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: >2500 mg/l, Daphnia magna

Acute toxicity - aquatic plants IC₅₀, 72 hours: 216 mg/l, Algae
EC₅₀, 72 hours: >1000 mg/l, Marinewater algae

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2-Propylheptanol ethoxylate

Acute aquatic toxicity

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

12.2. Persistence and degradability

Persistence and degradability 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 readily biodegradable.

Ecological information on ingredients.

C6 Alkyl glucoside

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

Triethanolamine

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

2-Propylheptanol ethoxylate

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

12.3. Bioaccumulative potential

Partition coefficient log Pow: < 3

Ecological information on ingredients.

C6 Alkyl glucoside

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

Triethanolamine

Bioaccumulative potential The product is not bioaccumulating.

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Partition coefficient log Kow: ~ -2.3 log Pow: < 1

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 (Annex XIV
Regulation 1907/2006)** No specific authorisations are known for this product.

**Restrictions (Annex XVII
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

General information	Only trained personnel should use this material.
Classification procedures according to Regulation (EC) 1272/2008	Eye Dam. 1 - H318: Calculation method.
Issued by	Craig Appleby - Chemist
Revision date	08/06/2020
Revision	3013
Supersedes date	01/02/2019
SDS number	4527
SDS status	Approved.
Hazard statements in full	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.
Signature	Craig Appleby

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