



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 Skyline Technologies b.v.
ABC Westland 247
2685DC Poeldijk
Netherlands
+31 (0)174 280875
+31 (0)174 280877
e.wiersum@skyline-technologies.nl

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 Irrit. 2 - H319
Environmental hazards Not Classified

2.2. Label elements

Pictogram



Signal word Warning

Hazard statements EUH208 Contains Ethanol,2,2'-[[[(methyl-1H-benzotriazol-1-yl)methyl]imino]bis-(9CI)]. May produce an allergic reaction.
H319 Causes serious eye irritation.

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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.

Detergent labelling 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

Isotridecylalcohol, ethoxylated	10-30%
CAS number: 69011-36-5	
Classification	
Acute Tox. 4 - H302	
Eye Irrit. 2 - H319	
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	
Oleoyl Sarcosinic Acid	1-5%
CAS number: 110-25-8	
EC number: 203-749-3	
REACH registration number: 01-2119488991-20-XXXX	
M factor (Acute) = 1	
Classification	
Acute Tox. 4 - H332	
Skin Irrit. 2 - H315	
Eye Dam. 1 - H318	
Aquatic Acute 1 - H400	
Ethanol,2,2'-[[[(methyl-1H-benzotriazol-1-yl)methyl]imino]bis-(9CI)]	<1%
CAS number: 80584-88-9	
EC number: 279-501-3	
REACH registration number: 01-2119982397-21-XXXX	
Classification	
Acute Tox. 4 - H302	
Eye Dam. 1 - H318	
Skin Sens. 1B - H317	

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

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

Specific hazards	None known.
Hazardous combustion products	Carbon monoxide (CO). Carbon dioxide (CO ₂).

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.
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6.2. Environmental precautions

Environmental precautions	Avoid discharge to the aquatic environment. Collect and dispose of spillage as indicated in Section 13.
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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/m³ vapour

WEL = Workplace Exposure Limit

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	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 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.
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
Explosive properties	Not considered to be explosive.
Oxidising properties	The mixture itself has not been tested but none of the ingredient substances 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. Average VOC content: 41.2 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

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

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

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

Serious eye damage/irritation Causes serious eye irritation.

Skin sensitisation

Skin sensitisation May cause sensitisation by skin contact.

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.

Isotridecylalcohol, ethoxylated

Acute toxicity - oral

ATE oral (mg/kg) 500.0

ZOK 27**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 (LD₅₀ mg/kg) 2,100.0

Species Rat

ATE oral (mg/kg) 2,100.0

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

SECTION 12: Ecological information

Ecotoxicity Not regarded as dangerous for the environment.

12.1. Toxicity**Acute aquatic toxicity**

Acute toxicity - fish LC₅₀, 96 hours: 33 mg/l, Marinewater fish
EC₅₀, 96 hours: >0.02 %, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: >0.01 %, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 72 hours: 8.1 mg/l, Marinewater algae

Acute toxicity - microorganisms LC₅₀, 10 days: 1267 mg/kg, Activated sludge

12.2. Persistence and degradability

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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 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

12.3. Bioaccumulative potential

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

Partition coefficient log Pow: < 3

12.4. Mobility in soil

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

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.

12.6. Other adverse effects

Other adverse effects None known.

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

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

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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.

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. The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).
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.

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.

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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 Irrit. 2 - H319: Calculation method.
Issued by	Craig Appleby - Chemist
Revision date	01/02/2019
Revision	1023
Supersedes date	22/03/2018
SDS number	4524
SDS status	Approved.
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. 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-(9Cl)]. May produce an allergic reaction.
Signature	Craig Appleby

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