

# **ZOK MX READY-TO-USE**

# **ZOK International Group**

Version No: 1.1

Safety Data Sheet (Conforms to Annex II of REACH (1907/2006) - Regulation 2020/878)

Chemwatch Hazard Alert Code: 3

Issue Date: **26/04/2023** Print Date: **26/04/2023** S.REACH.GB-NIR.EN

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

# 1.1. Product Identifier

Product name	ZOK MX READY-TO-USE	
Chemical Name	t Applicable	
Synonyms	ot Available	
Chemical formula	Not Applicable	
Other means of identification	UFI:GH00-W0TX-T002-CP1F	

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

Relevant identified uses	Gas Turbine Compressor Cleaning Fluid
Uses advised against	No specific uses advised against are identified.

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

Registered company name	ZOK International Group	
Address	Airworthy House Elsted, Midhurst West Sussex United Kingdom	
Telephone	443337002727	
Fax	Not Available	
Website	www.zok.com	
Email	zok@zok.com	

### 1.4. Emergency telephone number

Association / Organisation	ZOK International Group	
Emergency telephone numbers	+44 (0) 333 700 2727 (08:30 - 17:00 GMT)	
Other emergency telephone numbers	Not Available	

# **SECTION 2 Hazards identification**

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

Classification according to regulation (EC) No 1272/2008 [CLP] and amendments [1]	H318 - Serious Eye Damage/Eye Irritation Category 1
Legend:	1. Classified by Chemwatch; 2. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI

# 2.2. Label elements

Hazard pictogram(s)



Signal word Danger

# Hazard statement(s)

H318 Causes serious eye damage.

### **Supplementary Phrases**

Not Applicable

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#### Precautionary statement(s) Prevention

P280

Wear protective gloves, protective clothing, eye protection and face protection.

# Precautionary statement(s) Response

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

### Precautionary statement(s) Storage

Not Applicable

### Precautionary statement(s) Disposal

Not Applicable

#### 2.3. Other hazards

Cumulative effects may result following exposure\*.

May produce skin discomfort\*.

Eye contact may produce serious damage\*.

REACH - Art.57-59: The mixture does not contain Substances of Very High Concern (SVHC) at the SDS print date.

# **SECTION 3 Composition / information on ingredients**

#### 3.1.Substances

See 'Composition on ingredients' in Section 3.2

#### 3.2.Mixtures

1.CAS No 2.EC No 3.Index No 4.REACH No	%[weight]	Name	Classification according to regulation (EC) No 1272/2008 [CLP] and amendments	SCL / M-Factor	Nanoform Particle Characteristics
1.69011-36-5 2.500-241-6 3.Not Available 4.Not Available	1-5	tridecanol. branched, ethoxylated	Acute Toxicity (Oral) Category 4, Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 1; H302, H315, H318, EUH066 [1]	Not Available	Not Available
Leger		Classified by Chemwatch; 2. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 3. Classification drawn from C&L * EU IOELVs available; [e] Substance identified as having endocrine disrupting properties			

### **SECTION 4 First aid measures**

# 4.1. Description of first aid measures

Eye Contact	If this product comes in contact with the eyes:  Immediately hold eyelids apart and flush the eye continuously with running water.  Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.  Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.  Transport to hospital or doctor without delay.  Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin contact occurs:  Immediately remove all contaminated clothing, including footwear.  Flush skin and hair with running water (and soap if available).  Seek medical attention in event of irritation.
Inhalation  Inhalation  Inhalation  If fumes, aerosols or combustion products are inhaled remove from contaminated area.  Other measures are usually unnecessary.	
Ingestion    Immediately give a glass of water.	

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

See Section 11

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

Treat symptomatically.

# **SECTION 5 Firefighting measures**

#### 5.1. Extinguishing media

► Water spray or fog.

# 5.2. Special hazards arising from the substrate or mixture

### 5.3. Advice for firefighters

Fire Fighting

▶ Alert Fire Brigade and tell them location and nature of hazard.

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Fire/Explosion Hazard

Combustible.
May emit corrosive fumes.

#### **SECTION 6 Accidental release measures**

# 6.1. Personal precautions, protective equipment and emergency procedures

See section 8

#### 6.2. Environmental precautions

See section 12

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

Minor Spills	Environmental hazard - contain spillage.  • Remove all ignition sources.
Major Spills	Environmental hazard - contain spillage. Moderate hazard.

### 6.4. Reference to other sections

Personal Protective Equipment advice is contained in Section 8 of the SDS.

# **SECTION 7 Handling and storage**

#### 7.1. Precautions for safe handling

<u>-</u>		
Safe handling  Avoid all personal contact, including inhalation.  DO NOT allow clothing wet with material to stay in contact with skin		
Fire and explosion protection	protection See section 5	
Other information	► Store in original containers.	

# 7.2. Conditions for safe storage, including any incompatibilities

Suitable container	<ul> <li>Metal can or drum</li> <li>Packaging as recommended by manufacturer.</li> </ul>	
Storage incompatibility	lone known	
Hazard categories in accordance with Regulation (EC) No 1272/2008	Not Available	
Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of	Not Available	

### 7.3. Specific end use(s)

See section 1.2

### **SECTION 8 Exposure controls / personal protection**

### 8.1. Control parameters

Ingredient	DNELs Exposure Pattern Worker	PNECs Compartment
tridecanol, branched, ethoxylated	Dermal 2 080 mg/kg bw/day (Systemic, Chronic) Inhalation 294 mg/m³ (Systemic, Chronic) Dermal 1 250 mg/kg bw/day (Systemic, Chronic) * Inhalation 87 mg/m³ (Systemic, Chronic) * Oral 25 mg/kg bw/day (Systemic, Chronic) *	0.074 mg/L (Water (Fresh)) 0.007 mg/L (Water - Intermittent release) 0.015 mg/L (Water (Marine)) 0.604 mg/kg sediment dw (Sediment (Fresh Water)) 0.06 mg/kg sediment dw (Sediment (Marine)) 0.1 mg/kg soil dw (Soil) 1.4 mg/L (STP)

<sup>\*</sup> Values for General Population

# Occupational Exposure Limits (OEL)

#### INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Not Available						

#### Not Applicable

<b>Emergency</b>	Limits
------------------	--------

Ingredient	TEEL-1	TEEL-2		TEEL-3
ZOK MX READY-TO-USE	Not Available	Not Available		Not Available
Ingredient	Original IDLH		Revised IDLH	

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# Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit	
tridecanol, branched, ethoxylated	E	≤ 0.1 ppm	
Notes:	Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.		

### 8.2. Exposure controls

8.2.1. Appropriate engineering controls	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard.
8.2.2. Individual protection measures, such as personal protective equipment	
Eye and face protection	► Safety glasses with side shields.
Skin protection	See Hand protection below
Hands/feet protection	Wear chemical protective gloves, e.g. PVC. The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer.
Body protection	See Other protection below
Other protection	► Overalls.

# Respiratory protection

Type A-P Filter of sufficient capacity.

# 8.2.3. Environmental exposure controls

See section 12

# SECTION 9 Physical and chemical properties

# 9.1. Information on basic physical and chemical properties

Appearance	Colourless		
Physical state	Liquid	Relative density (Water = 1)	1.01
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	8.1-8.5	Decomposition temperature (°C)	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	1.22
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Available
Flash point (°C)	>100	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Applicable	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Miscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	8.2
Nanoform Solubility	Not Available	Nanoform Particle Characteristics	Not Available
Particle Size	Not Available		

# 9.2. Other information

Not Available

# **SECTION 10 Stability and reactivity**

10.1.Reactivity	See section 7.2
10.2. Chemical stability	▶ Unstable in the presence of incompatible materials.
10.3. Possibility of hazardous reactions	See section 7.2

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10.4. Conditions to avoid	See section 7.2
10.5. Incompatible materials	See section 7.2
10.6. Hazardous decomposition products	See section 5.3

### **SECTION 11 Toxicological information**

### 11.1. Information on toxicological effects

Inhaled	The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models).
Ingestion	Swallowing of the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis; serious consequences may result. The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion".
Skin Contact	Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions.  There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons.
Eye	If applied to the eyes, this material causes severe eye damage.
Chronic	Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course.

70K MV DE 4 DV TO 110E	TOXICITY	IRRITATION	
ZOK MX READY-TO-USE	Not Available	Not Available	
	TOXICITY	IRRITATION	
tridecanol, branched, ethoxylated	dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup>	Eye (rabbit): irritant *	
	Oral (Rat) LD50: 1080 mg/kg <sup>[2]</sup>	Eye: no adverse effect observed (not irritating) <sup>[1]</sup>	
		Skin (rabbit): non-irritating *	
		Skin: no adverse effect observed (not irritating) <sup>[1]</sup>	
Legend:	Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances		

TRIDECANOL, BRANCHED,
ETHOXYLATED

\* [BASF Canada]

Humans have regular contact with alcohol ethoxylates through a variety of industrial and consumer products such as soaps, detergents and other cleaning products.

Both laboratory and animal testing has shown that there is no evidence for alcohol ethoxylates (AEs) causing genetic damage, mutations or cancer.

Acute Toxicity	×	Carcinogenicity	×
Skin Irritation/Corrosion	×	Reproductivity	×
Serious Eye Damage/Irritation	✓	STOT - Single Exposure	X
Respiratory or Skin sensitisation	×	STOT - Repeated Exposure	×
Mutagenicity	×	Aspiration Hazard	×

★ - Data either not available or does not fill the criteria for classification

Data available to make classification

#### 11.2 Information on other hazards

# 11.2.1. Endocrine disrupting properties

No evidence of endocrine disrupting properties were found in the current literature.

### 11.2.2. Other information

See Section 11.1

# **SECTION 12 Ecological information**

# 12.1. Toxicity

ZOK MX READY-TO-USE	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
	Endpoint	Test Duration (hr)	Species	Value	Source
tridecanol, branched, ethoxylated	EC50(ECx)	48h	Crustacea	1-10mg/l	Not Available
	LC50	96h	Fish	2.3mg/l	Not Available
	EC50	72h	Algae or other aquatic plants	1-10mg/l	Not Available

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EC50 48h Crustacea 1-10mg/l Not Available

Legend: Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark.

#### 12.2. Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
	No Data available for all ingredients	No Data available for all ingredients

# 12.3. Bioaccumulative potential

Ingredient	Bioaccumulation
	No Data available for all ingredients

### 12.4. Mobility in soil

Ingredient	Mobility
	No Data available for all ingredients

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

	P	В	Т
Relevant available data	Not Available	Not Available	Not Available
PBT	×	×	×
vPvB	X	×	×
PBT Criteria fulfilled?			
vPvB			No

#### 12.6. Endocrine disrupting properties

No evidence of endocrine disrupting properties were found in the current literature.

# 12.7. Other adverse effects

No evidence of ozone depleting properties were found in the current literature.

# **SECTION 13 Disposal considerations**

#### 13.1. Waste treatment methods

Product / Packaging disposal	Legislation addressing waste disposal requirements may differ by country, state and/ or territory.  • DO NOT allow wash water from cleaning or process equipment to enter drains.  • Recycle wherever possible or consult manufacturer for recycling options.	
Waste treatment options	Not Available	
Sewage disposal options	Not Available	

# **SECTION 14 Transport information**

### Labels Required

<del></del>	
Marine Pollutant	NO
HAZCHEM	Not Applicable

#### Land transport (ADR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Land transport (ADA). NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS					
14.1. UN number or ID number	Not Applicable	Not Applicable			
14.2. UN proper shipping name	Not Applicable	Not Applicable			
14.3. Transport hazard	Class	Not Applicab	le		
class(es)	Subsidiary risk Not Applicable				
14.4. Packing group	Not Applicable				
14.5. Environmental hazard	Not Applicable				
14.6. Special precautions for	Hazard identification (Kemler)  Classification code		Not Applicable  Not Applicable		
user	Hazard Label		Not Applicable		
	Special provisions		Not Applicable		

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	1					
	Limited quantity	Not Applicable				
	Tunnel Restriction Cod	de Not Applicable				
Air transport (ICAO-IATA / DG	P): NOT PEGIJI ATED E	OR TRANSPORT OF DA	NGEROUS GOODS			
14.1. UN number	Not Applicable	OK TRANSFORT OF DA	NOENGOO GOODG			
14.2. UN proper shipping name	Not Applicable					
	ICAO/IATA Class	Not Applicable				
14.3. Transport hazard class(es)	ICAO / IATA Subrisk Not Applicable					
ciass(es)	ERG Code Not Applicable					
14.4. Packing group	Not Applicable					
14.5. Environmental hazard	Not Applicable					
	Special provisions		Not Applicable			
	Cargo Only Packing In	structions	Not Applicable			
	Cargo Only Maximum	Qty / Pack	Not Applicable			
14.6. Special precautions for	Passenger and Cargo	Packing Instructions	Not Applicable			
user	Passenger and Cargo		Not Applicable			
	<u> </u>					

Not Applicable

Not Applicable

# Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Passenger and Cargo Limited Quantity Packing Instructions

Passenger and Cargo Limited Maximum Qty / Pack

14.1. UN number	Not Applicable			
14.2. UN proper shipping name	Not Applicable			
14.3. Transport hazard class(es)	IMDG Class     Not Applicable       IMDG Subrisk     Not Applicable			
14.4. Packing group	Not Applicable			
14.5. Environmental hazard	Not Applicable			
14.6. Special precautions for user	EMS Number Not Applicable Special provisions Not Applicable Limited Quantities Not Applicable			

# Inland waterways transport (ADN): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.1. UN number	Not Applicable			
14.2. UN proper shipping name	Not Applicable			
14.3. Transport hazard class(es)	Not Applicable Not Applicable			
14.4. Packing group	Not Applicable			
14.5. Environmental hazard	Not Applicable			
14.6. Special precautions for user	Classification code Not Applicable Special provisions Not Applicable Limited quantity Not Applicable Equipment required Not Applicable Fire cones number Not Applicable			

# 14.7. Maritime transport in bulk according to IMO instruments

# 14.7.1. Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

# 14.7.2. Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
tridecanol, branched, ethoxylated	Not Available

# 14.7.3. Transport in bulk in accordance with the IGC Code

Product name	Ship Type
tridecanol, branched,	Not Available

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Product name	Ship Type
ethoxylated	

### **SECTION 15 Regulatory information**

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

#### tridecanol, branched, ethoxylated is found on the following regulatory lists

Europe EC Inventory

This safety data sheet is in compliance with the following EU legislation and its adaptations - as far as applicable -: Directives 98/24/EC, - 92/85/EEC, - 94/33/EC, - 2008/98/EC, -2010/75/EU; Commission Regulation (EU) 2020/878; Regulation (EC) No 1272/2008 as updated through ATPs.

#### Information according to 2012/18/EU (Seveso III):

Seveso Category

Not Available

#### 15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

#### **National Inventory Status**

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	Yes
Canada - DSL	Yes
Canada - NDSL	No (tridecanol, branched, ethoxylated)
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	Yes
Japan - ENCS	Yes
Korea - KECI	Yes
New Zealand - NZIoC	Yes
Philippines - PICCS	Yes
USA - TSCA	Yes
Taiwan - TCSI	Yes
Mexico - INSQ	No (tridecanol, branched, ethoxylated)
Vietnam - NCI	Yes
Russia - FBEPH	Yes
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.

#### **SECTION 16 Other information**

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# Full text Risk and Hazard codes

Tuli text Nisk and Hazard Code	text filsk diffu fidzaid Godes	
H302	Harmful if swallowed.	
H315	Causes skin irritation.	

### Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment.

For detailed advice on Personal Protective Equipment, refer to the following EU CEN Standards:

EN 166 Personal eye-protection

EN 340 Protective clothing

EN 374 Protective gloves against chemicals and micro-organisms

EN 13832 Footwear protecting against chemicals

EN 133 Respiratory protective devices

#### **Definitions and abbreviations**

PC-TWA: Permissible Concentration-Time Weighted Average

PC-STEL: Permissible Concentration-Short Term Exposure Limit

IARC: International Agency for Research on Cancer

ACGIH: American Conference of Governmental Industrial Hygienists

STEL: Short Term Exposure Limit

TEEL: Temporary Emergency Exposure Limit $_{\circ}$ 

IDLH: Immediately Dangerous to Life or Health Concentrations

ES: Exposure Standard OSF: Odour Safety Factor

NOAEL :No Observed Adverse Effect Level LOAEL: Lowest Observed Adverse Effect Level Version No: 1.1 Page 9 of 9 Issue Date: 26/04/2023

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TLV: Threshold Limit Value LOD: Limit Of Detection OTV: Odour Threshold Value BCF: BioConcentration Factors BEI: Biological Exposure Index

AIIC: Australian Inventory of Industrial Chemicals

DSL: Domestic Substances List NDSL: Non-Domestic Substances List

IECSC: Inventory of Existing Chemical Substance in China EINECS: European INventory of Existing Commercial chemical Substances

ELINCS: European List of Notified Chemical Substances

NLP: No-Longer Polymers

ENCS: Existing and New Chemical Substances Inventory

KECI: Korea Existing Chemicals Inventory NZIoC: New Zealand Inventory of Chemicals

PICCS: Philippine Inventory of Chemicals and Chemical Substances

TSCA: Toxic Substances Control Act TCSI: Taiwan Chemical Substance Inventory INSQ: Inventario Nacional de Sustancias Químicas

NCI: National Chemical Inventory

FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

### Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]

Classification according to regulation (EC) No 1272/2008 [CLP] and amendments	Classification Procedure
Serious Eye Damage/Eye Irritation Category 1, H318	Calculation method

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