



## SAFETY DATA SHEET ZOK MX

### 1. Identification

#### Product identifier

**Product name** ZOK MX

#### Recommended use of the chemical and restrictions on use

**Application** Cleaning compound, turbine engine gas path.

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

**Supplier** Zokman Products Inc.  
1220 E. Gump Road  
Fort Wayne  
IN 46845  
USA  
+1 800 727 6027  
+1 260 637 4038  
+1 800 844 3227  
+1 260 637 5031  
zzokman@aol.com

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

#### Emergency telephone number

**Emergency telephone** CHEMTREC; 24 Hours. (800) 424-9300

### 2. Hazard(s) identification

#### Classification of the substance or mixture

**Physical hazards** Not Classified

**Health hazards** Eye Irrit. 2A - H319

**Environmental hazards** Not Classified

#### Label elements

##### Pictogram



**Signal word** Warning

**Hazard statements** H319 Causes serious eye irritation.

## ZOK MX

**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.

**Contains** Isotridecylalcohol, ethoxylated

### Other hazards

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

### 3. Composition/information on ingredients

#### Mixtures

<b>Isotridecylalcohol, ethoxylated</b>	<b>10-30%</b>
CAS number: 69011-36-5	
<b>Classification</b>	
Acute Tox. 4 - H302	
Eye Irrit. 2A - H319	
<b>3-butoxypropan-2-ol</b>	<b>1-5%</b>
CAS number: 5131-66-8	
<b>Classification</b>	
Skin Irrit. 2 - H315	
Eye Irrit. 2 - H319	

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

### 4. First-aid measures

#### 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.

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

**Inhalation** Vapors may irritate throat/respiratory system. Symptoms following overexposure to vapor 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.

## ZOK MX

**Eye contact** Irritating to eyes. Symptoms following overexposure may include the following: Redness. Pain.

### Indication of immediate medical attention and special treatment needed

**Specific treatments** Treat symptomatically.

### 5. Fire-fighting measures

#### 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.

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

**Specific hazards** None known.

**Hazardous combustion products** Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

#### 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.

### 6. Accidental release measures

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

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

#### Environmental precautions

**Environmental precautions** Avoid discharge to the aquatic environment. Avoid the spillage or runoff entering drains, sewers or watercourses.

#### 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.

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

### 7. Handling and storage

#### Precautions for safe handling

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

#### 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.

#### Specific end uses(s)

## ZOK MX

**Specific end use(s)** The identified uses for this product are detailed in Section 1.

### 8. Exposure controls/Personal protection

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

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

#### Exposure controls

##### Protective equipment



##### Appropriate engineering controls

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

### 9. Physical and chemical properties

#### Information on basic physical and chemical properties

<b>Appearance</b>	Colorless liquid.
<b>Color</b>	Colorless.
<b>Odor</b>	Characteristic.
<b>Odor threshold</b>	Not available.
<b>pH</b>	pH (concentrated solution): 8.2-8.5
<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 available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	Not known.
<b>Vapor pressure</b>	Not applicable.
<b>Vapor density</b>	Not applicable.

## ZOK MX

<b>Relative density</b>	1.01 @ 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>	7.40 cSt @ 20°C
<b>Explosive properties</b>	Not considered to be explosive.
<b>Oxidizing properties</b>	The mixture itself has not been tested but none of the ingredient substances meet the criteria for classification as oxidizing.
<b>Volatile organic compound</b>	This product contains a maximum VOC content of 50 g/L. Average VOC content: 41.2 g/L

### 10. Stability and reactivity

<b>Reactivity</b>	There are no known reactivity hazards associated with this product.
<b>Stability</b>	Stable at normal ambient temperatures and when used as recommended.
<b>Possibility of hazardous reactions</b>	No potentially hazardous reactions known.
<b>Conditions to avoid</b>	Avoid excessive heat for prolonged periods of time.
<b>Materials to avoid</b>	Strong oxidizing agents. Strong reducing agents.
<b>Hazardous decomposition products</b>	Heating may generate the following products: Carbon monoxide (CO). Carbon dioxide (CO <sub>2</sub> ).

### 11. Toxicological information

#### Information on toxicological effects

#### Serious eye damage/irritation

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

#### 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.

**ZOK MX**

<b>Inhalation</b>	May cause sensitisation by inhalation.
<b>Ingestion</b>	May cause stomach pain or vomiting.
<b>Skin Contact</b>	May be slightly irritating to skin.
<b>Eye contact</b>	May cause eye irritation.
<b>Target Organs</b>	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 sensitization**

**Respiratory sensitization** Not known.

**Skin sensitization**

**Skin sensitization** 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

**12. Ecological information****Acute aquatic toxicity**

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: 70.7 mg/l, Oncorhynchus mykiss (Rainbow trout)

**Ecological information on ingredients.****Isotridecylalcohol, ethoxylated****Acute aquatic toxicity**

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: >0.20 mg/l, Marinewater fish

**Acute toxicity - microorganisms** LC<sub>50</sub>, 10 days: 140.3 mg/kg, Activated sludge

**Persistence and degradability**

**Persistence and degradability** The product is biodegradable but it must not be discharged into drains without permission from the authorities.

**Biodegradation** Inherently biodegradable.

**Ecological information on ingredients.**

## ZOK MX

### Isotridecylalcohol, ethoxylated

**Biodegradation** OECD 301A - Degradation > 70%: 28 days

#### Bioaccumulative potential

**Partition coefficient** log Pow: < 3

#### Mobility in soil

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

#### Other adverse effects

**Other adverse effects** None known.

### 13. Disposal considerations

#### 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.

### 14. Transport information

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

#### UN Number

**UN No. (International)** Not applicable.

#### UN proper shipping name

**Proper shipping name (International)** Not applicable.

#### Transport hazard class(es)

**Transport Labels (International)** No transport warning sign required.

#### Packing group

**Packing group (International)** Not applicable.

#### Environmental hazards

**Environmentally Hazardous Substance**  
No.

#### Special precautions for user

Not applicable.

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

### 15. Regulatory information

## ZOK MX

### National regulations

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

### Guidance

Workplace Exposure Limits EH40.

### US Federal Regulations

#### **SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities**

Not listed.

#### **SARA 313 Emission Reporting**

Not listed.

#### **CAA Accidental Release Prevention**

Not listed.

### US State Regulations

#### **California Proposition 65 Carcinogens and Reproductive Toxins**

This product does not contain any substances known to the State of California to cause cancer, birth defects or other reproductive harm.

#### **California Air Toxics "Hot Spots" (A-I)**

Not listed.

#### **California Air Toxics "Hot Spots" (A-II)**

Not listed.

#### **Rhode Island "Right To Know" List**

Not listed.

#### **New Jersey "Right To Know" List**

Not listed.

### 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.



## ZOK MX

### New Zealand - NZIOC

All the ingredients are listed or exempt.

#### 16. Other information

<b>General information</b>	Only trained personnel should use this material.
<b>Issued by</b>	Craig Appleby - Chemist
<b>Revision date</b>	2/1/2019
<b>Revision</b>	2019
<b>Supersedes date</b>	3/22/2018
<b>SDS No.</b>	4526
<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.
<b>Signature</b>	Craig Appleby
<b>NFPA - health hazard</b>	Irritation, minor residual injury. (1)
<b>NFPA - flammability hazard</b>	Will not burn. (0)
<b>NFPA - instability hazard</b>	Normally stable. (0)
<b>ACA HMIS Health rating.</b>	Slight hazard. (1)
<b>ACA HMIS Flammability rating.</b>	Will not burn. (0)
<b>ACA HMIS Physical hazard rating.</b>	Normally stable. (0)
<b>ACA HMIS Personal protection rating.</b>	A

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