



# **ZIRCARMOR**

## **ZIRCONIUM CONVERSION COATING**

### **SAFETY DATA SHEET (SDS)**

## SECTION 1: Identification

### GHS Product identifier

Product name	KoatGuard ZircArmor
Product number	KGZA

### Product Use:

Surface Pretreatment

Name	KoatGuard Chemicals
Address	12683 McIlwain Rd Holladay, TN 38341 United States

Telephone	931-388-7730
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Emergency phone number (Poison Control)	1-800-222-1222
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## SECTION 2: Hazard identification

### SIGNAL WORD:

Warning

### CLASSIFICATION:

Acute Toxicity - Dermal Category 4  
Acute Toxicity - Inhalation Category 4  
Acute Toxicity - Oral Category 4  
Eye Damage/Irritation Category 2A  
Skin Corrosion/Irritation Category 2  
Corrosive to Metals Category 1

### PICTOGRAMS:

Irritant  
Corrosive



### HEATH PHRASES:

H290	May be corrosive to metals
H302	Harmful if swallowed
H312	Harmful in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation
H332	Harmful if inhaled

## PRECAUTIONARY PHRASES:

P234	Keep only in original container
P261	Avoid breathing dust/fume/gas/mist/vapours/spray
P264	Wash skin thoroughly after handling
P270	Do not eat, drink, or smoke when using this product
P271	Use only outdoors or in a well-ventilated area
P280	Wear protective gloves/protective clothing/eye protection/face protection
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
P302 + P352	IF ON SKIN: Wash with soap and water
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305 + P351 + P338	IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
P312	Call a POISON CENTER or doctor/physician if you feel unwell
P321	Specific treatment (see first aid measures on SDS)
P330	Rinse mouth
P332 + P313	If skin irritation occurs: Get medical advice/attention
P337 + P313	Get medical advice/attention
P362 + P364	Take off contaminated clothing and wash before reuse.
P390	Absorb spillage to prevent material damage.
P406	Store in a corrosive resistant container.
P501	Dispose of contents/container to an accordance with all locals, state, and federal regulations.

Classifications complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

### SECTION 3: Composition/information on ingredients

Chemical Name	Conc. %	CAS #	GHS Hazard Codes
Dipropylene glycol methyl ether	< 5	34590-94-8	H227
Hexafluorozirconic acid	< 1	12021-95-3	H311, H331, H301, H318, H314,

\*\*\* Exact percentage(s) is/are a trade secret. Concentration range is provided to assist users in providing appropriate protection. \*\*\*

### SECTION 4: First-aid measures

- EYE CONTACT:** Hold eye lids apart and flush eyes with plenty of water for at least 15 minutes. Get medical attention with any degree of eye exposure.
- INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
- INGESTION:** Drink several glasses of water to dilute. Do Not induce vomiting except at the instruction of a physician. Never give anything by mouth to an unconscious person.
- SKIN CONTACT:** Wash affected area with soap and water. If irritation persists, get medical attention.

### SECTION 5: Fire-fighting measures

**SUITABLE EXTINGUISHING MEDIA:**

Any suitable for surrounding material.

**SPECIAL FIRE FIGHTING PROCEDURES:**

Use standard firefighting procedures.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:**

N/A

**COMBUSTION PRODUCTS:**

Oxides of carbon, nitrogen, and phosphorous

### SECTION 6: Accidental release measures

**STEPS TO BE TAKEN IN CASE MATERIAL IS SPILLED OR RELEASED:**

Soak up spill with absorbent material and collect for disposal. Flush area with water or mop spill area to remove residue.

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## **SECTION 7: Handling and storage**

### **PRECAUTIONS FOR SAFE HANDLING:**

Keep away from strong alkalis, food and drinking water.

### **CONDITIONS FOR SAFE STORAGE:**

Store in well ventilated area.

### **OTHER PRECAUTIONS:**

Eyewash and safety shower should be in the area of chemical handling.

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

### **WORK / HYGENIC PRACTICES:**

Use good personal hygiene when handling this product. Wash hands after use, before smoking, or using the restroom.

### **ENGINEERING CONTROLS:**

Good ventilation should be sufficient to control airborne levels.

### **PERSONAL PROTECTIVE EQUIPMENT (PPE)**

#### **RESPIRATORY PROTECTION:**

This product does not have an established exposure limit, but contains ingredients which have an established exposure limit. Wear an air purifying respirator with an acid cartridge in situations where there may be potential for airborne exposure.

#### **VENTILATION:**

Provide exhaust ventilation sufficient to keep the airborne concentration of this product below its exposure limits. Exhaust air may need to be cleaned by scrubbers or filters to reduce environmental contamination.

#### **PROTECTIVE GLOVES:**

Nitrile gloves are recommended.

#### **EYE PROTECTION:**

Safety glasses and side shields are recommended. Have eye wash station in area of handling.

#### **OTHER PROTECTIVE CLOTHING OR EQUIPMENT:**

Where splashing is possible wear chemical resistant clothing to minimize contact with skin.

### **EXPOSURE GUIDELINES:**

To minimize exposure, all recommended protective equipment should be employed when handling this product.

**EXPOSURE LIMITS:**

Chemical Name	OSHA PEL	ACGIH TLV
Dipropylene glycol methyl ether	100 ppm	100 ppm
Hexafluorozirconic acid	2.5 mg/m3 (as F)	2.5 mg/m3 (as F)

## SECTION 9: Physical and chemical properties

Appearance (physical state, color, etc.)	No data available.
Odor	No data available.
Odor threshold	No data available.
pH	No data available.
Melting point/freezing point	No data available.
Initial boiling point and boiling range	No data available.
Flash point	>200F
Evaporation rate	No data available.
Flammability (solid, gas)	No data available.
Upper/lower flammability or explosive limits	No data available.
Vapor pressure	No data available.
Vapor density	No data available.
Relative density	No data available.
Solubility(ies)	Excellent
Partition coefficient: n-octanol/water	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Viscosity	No data available.

### Additional properties

Physical state	Liquid
Color	Clear amber liquid, mild odor
Explosive properties	No data available.
Oxidizing properties	No data available.

### Particle characteristics

No data available.

### Supplemental information regarding physical hazard classes

No data available.

### Further safety characteristics (supplemental)

No data available.

## SECTION 10: Stability and reactivity

### CHEMICAL STABILITY:

Stable

### HAZARDOUS POLYMERIZATION:

Not Likely To Occur

### POSSIBILITY OF HAZARDOUS REACTIONS:

None Known.

### CONDITONS TO AVOID:

Avoid mixing product with concentrated caustics.

### INCOMPATIBLE MATERIALS:

Concentrated alkaline materials.

### HAZARDOUS DECOMPOSITION PRODUCTS:

Upon thermal decomposition oxides of carbon, nitrogen, and/or phosphorous.

## SECTION 11: Toxicological information

**HAZARDOUS DECOMPOSITION PRODUCTS:** Skin   Ingestion   Inhalation

### POTENTIAL HEALTH EFFECTS

**EYE CONTACT:** Contact with the eyes may result in severe irritation and permanent injury may occur.  
**INHALATION:** Avoid breathing mists of product and/or dilutions, which cause irritation of upper respiratory tract  
**INGESTION:** Corrosive liquid, may cause damage to mouth, throat, and stomach.  
**SKIN CONTACT:** May cause severe irritation or chemical burns. Blistering may occur.

### SIGNS AND SYMPTOMS OF EXPOSURE:

ACUTE: Skin and eye irritation. CHRONIC: None

### AGGRAVATED MEDICAL CONDITIONS:

May aggravate existing skin ailments with repeated skin exposure.

### CARCINOGEN:

This product is not considered to be a carcinogen by IARC, NTP or OSHA.

### OTHER TOXICOLOGICAL INFORMATION:

No information on this product as a whole.

### EXPOSURE LIMITS:

Chemical Name	LD50 Oral (Rat)	LD50 Dermal (Rabbit)	LC50 Inhalation (Rat)
Dipropylene glycol methyl ether	5,135 mg/kg	5,135 mg/kg	Not Determined
Hexafluorozirconic acid	Not Determined	Not Determined	Not Determined



## SECTION 12: Ecological information

No information on this product as a whole.

## SECTION 13: Disposal considerations

Consult an expert on disposal of recovered material to ensure conformity to local disposal regulations.

## SECTION 14: Transport information

**PROPER SHIPPING NAME:** Corrosive Liquids, N.O.S. (contains hexafluorozirconic acid)

**HAZARD CLASS:** 8

**UN NUMBER:** 1760

**PACKING GROUP:** III

**GUIDE NUMBER:** 154

**MARINE POLLUTANT:** No

## SECTION 15: Regulatory information

### EPA / TSCA Inventory:

All components of this product that are required to be on the EPA / TSCA inventory are listed on the Inventory.

### EPA Superfund Amendments and Reauthorization Act of 1986 Title III (SARA)

#### SARA 311 and 312

**Acute/Immediate:** Yes

**Chronic/Delayed:** No

**Fire:** No

**Pressure:** No

**Reactivity:** No

#### SARA 313

This material does not contain any chemical components with known CAS numbers that exceed the threshold reporting levels.

### Comprehensive Environmental Response Compensation Liability Act: (CERCLA)

This material does not contain any chemical components with known CAS numbers that are listed on the CERCLA list.

### State Right To Know

#### New Jersey Worker and Community Right-To-Know Act:

The following chemicals are listed because of the additional requirements of New Jersey Law.

Chemical Name	CAS
Hexafluorozirconic acid	12021-95-3

#### Pennsylvania Worker and Community Right-To-Know Act:

The following chemicals are listed because of the additional requirements of Pennsylvania Law.

Chemical Name	CAS
Hexafluorozirconic acid	12021-95-3

## **SECTION 16: Other Information**

**HMIS INFORMATION: HEALTH: 1 FLAMMABILITY: 0 REACTIVITY: 0 PROTECTIVE: B**

**4 = Severe    3 = Serious    2 = Moderate    1 = Slight    0 = Minimal**

**NFPA INFORMATION: HEALTH: 1 FLAMMABLE: 0 FLAMMABLE: 0 SPECIAL HAZARD:**

### **DISCLAIMER:**

The information contained in this Safety Data Sheet has been prepared based upon data believed to be reliable, an evaluation of the ingredients in the product, their concentration in the product and potential interactions. The information is offered in good faith and is believed to be reliable and reflects our best professional judgment. Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein and assume no responsibility regarding the suitability of this information for the user's intended purpose or for the consequence of its use. Each individual should make a determination as to the suitability of the information for his / her particular purpose(s). It is furnished to our customer who is urged to study it carefully to become aware of hazards, if any, in the storage, handling, use and disposal of the product; and to insure his employees are properly informed and advised of all safety precautions required. The information is furnished for compliance with the "Occupational Safety and Health Act" of 1970, the "Hazards Communication Act" of 1983 as well as various other Federal, State and Local regulations. Use or dissemination of all or part of this information for any other purpose is prohibited by law.