



# ZirClean

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 05/23/2018

Version: 1.0

### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixture  
Product name : ZirClean

#### 1.2. Recommended use and restrictions on use

Use of the substance/mixture : For Rx Only

#### 1.3. Supplier

##### Manufacturer

Bisco, Inc.  
1100 W. Irving Park Rd.  
Schaumburg, IL 60193  
T +1.847.534.6000 - F +1.847.891.5049  
[sales@bisco.com](mailto:sales@bisco.com) - [www.bisco.com](http://www.bisco.com)

#### 1.4. Emergency telephone number

Emergency number : CHEMTREC - 24-Hour Hazmat Emergency Communications Center  
Domestic: 1-800-424-9300 Outside the U.S.: 1-703-527-3887, collect calls accepted

### SECTION 2: Hazard(s) identification

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

##### GHS-US classification

Skin corrosion/irritation H314 Causes severe skin burns and eye damage  
Category 1A

Full text of H statements : see section 16

#### 2.2. GHS Label elements, including precautionary statements

##### GHS-US labeling

Hazard pictograms (GHS-US) :



Hazard statements (GHS-US) : H314 - Causes severe skin burns and eye damage

Precautionary statements (GHS-US) : P260 - Do not breathe vapors.  
P264 - Wash hands thoroughly after handling  
P280 - Wear protective gloves, eye protection, face protection  
P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting  
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower  
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing  
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 doctor, a POISON CENTER  
P321 - Specific treatment (see First aid measures on this label)  
P363 - Wash contaminated clothing before reuse.  
P405 - Store locked up.  
P501 - Dispose in a safe manner in accordance with local/national regulations

#### 2.3. Other hazards which do not result in classification

No additional information available

#### 2.4. Unknown acute toxicity (GHS US)

Not applicable

### SECTION 3: Composition/Information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

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Name	Product identifier	%	GHS-US classification
Potassium Hydroxide	(CAS-No.) 1310-58-3	< 10	Acute Tox. 4 (Oral), H302 Skin Corr. 1A, H314 Aquatic Acute 3, H402

Full text of hazard classes and H-statements : see section 16

### SECTION 4: First-aid measures

#### 4.1. Description of first aid measures

- First-aid measures general : Call a physician immediately.
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
- First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Call a physician immediately.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
- First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Call a physician immediately.

#### 4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects after skin contact : Burns.
- Symptoms/effects after eye contact : Serious damage to eyes.
- Symptoms/effects after ingestion : Burns.

#### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

### SECTION 5: Fire-fighting measures

#### 5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

#### 5.2. Specific hazards arising from the chemical

- Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

#### 5.3. Special protective equipment and precautions for fire-fighters

- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

### SECTION 6: Accidental release measures

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

##### 6.1.1. For non-emergency personnel

- Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapors/spray.

##### 6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

#### 6.2. Environmental precautions

Avoid release to the environment.

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

- Methods for cleaning up : Take up liquid spill into absorbent material.
- Other information : Dispose of materials or solid residues at an authorized site.

#### 6.4. Reference to other sections

For further information refer to section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapors/spray. Wear personal protective equipment.
- Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

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### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Potassium Hydroxide (1310-58-3)		
ACGIH	Local name	Potassium hydroxide
ACGIH	ACGIH Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
ACGIH	Remark (ACGIH)	URT, eye, & skin irr

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

### 8.3. Individual protection measures/Personal protective equipment

#### Hand protection:

Protective gloves

#### Eye protection:

Safety glasses

#### Skin and body protection:

Wear suitable protective clothing

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Gel
Color	: Deep blue
Odor	: Odourless
Odor threshold	: No data available
pH	: > 13
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available

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Oxidizing properties : No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

Potassium Hydroxide (1310-58-3)	
LD50 oral rat	333 mg/kg (Equivalent or similar to OECD 425, Rat, Male, Experimental value)
ATE US (oral)	333 mg/kg body weight

Skin corrosion/irritation : Causes severe skin burns and eye damage.  
pH: > 13

Serious eye damage/irritation : Not classified  
pH: > 13

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity – single exposure : Not classified

Specific target organ toxicity – repeated exposure : Not classified

Aspiration hazard : Not classified

Symptoms/effects after skin contact : Burns.

Symptoms/effects after eye contact : Serious damage to eyes.

Symptoms/effects after ingestion : Burns.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : Before neutralisation, the product may represent a danger to aquatic organisms.

Potassium Hydroxide (1310-58-3)	
LC50 fish 1	80 mg/l (96 h, Gambusia affinis, Static system, Fresh water, Experimental value)

### 12.2. Persistence and degradability

Potassium Hydroxide (1310-58-3)	
Persistence and degradability	Biodegradability: not applicable.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable

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Potassium Hydroxide (1310-58-3)	
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

### 12.3. Bioaccumulative potential

Potassium Hydroxide (1310-58-3)	
Bioaccumulative potential	Bioaccumulation: not applicable.

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

## SECTION 14: Transport information

### Department of Transportation (DOT)

In accordance with DOT

Transport document description : UN1814 Potassium hydroxide, solution, 8, III  
 UN-No.(DOT) : UN1814  
 Proper Shipping Name (DOT) : Potassium hydroxide, solution  
 Class (DOT) : 8 - Class 8 - Corrosive material 49 CFR 173.136  
 Packing group (DOT) : III - Minor Danger  
 Hazard labels (DOT) : 8 - Corrosive



DOT Packaging Non Bulk (49 CFR 173.xxx) : 203  
 DOT Packaging Bulk (49 CFR 173.xxx) : 241  
 DOT Special Provisions (49 CFR 172.102) : IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).  
 T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3)  
 TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling =  $97 / 1 + a (tr - tf)$  Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.  
 DOT Packaging Exceptions (49 CFR 173.xxx) : 154  
 DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 5 L  
 DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 60 L  
 DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.  
 DOT Vessel Stowage Other : 52 - Stow "separated from" acids  
 Other information : No supplementary information available.

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### Transportation of Dangerous Goods

#### Transport by sea

#### Air transport

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

#### Potassium Hydroxide (1310-58-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory  
Not subject to reporting requirements of the United States SARA Section 313

CERCLA RQ	1000 lb
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### 15.2. International regulations

#### CANADA

No additional information available

#### EU-Regulations

No additional information available

#### National regulations

No additional information available

### 15.3. US State regulations

#### Potassium Hydroxide (1310-58-3)

U.S. - New Jersey - Right to Know Hazardous Substance List  
U.S. - Pennsylvania - RTK (Right to Know) List

## SECTION 16: Other information

Revision date : 05/18/2018

Full text of H-phrases:

H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H402	Harmful to aquatic life

SDS US (GHS HazCom 2012)

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*