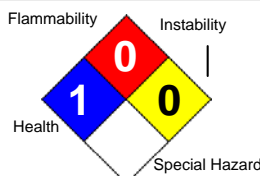


# SAFETY DATA SHEET

## K-Seal Ultimate



<b>HEALTH</b>	1
<b>FLAMMABILITY</b>	0
<b>PHYSICAL</b>	1
<b>PPE</b>	<b>B</b>



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### 1. Product and Company Identification

**Product Code:** K-SEAL ULTIMATE

**Product Name:** K-Seal Ultimate

**Manufacturer Information**

**Company Name:** Kalimex Ltd.  
Unit 1  
Plumpton Green Studios  
East Sussex, BN7 3DQ

**Emergency Contact:** Kalimex +44 (0) (127)389-1162

**Preparer Name:** CRR

**Intended Use:** Radiator Sealant

**Product Category:** Specialty Products

### 2. Hazards Identification

GHS Classification	Placard	Key word	GHS hazard phrase
Acute Toxicity: Oral, Category 4	Exclamation point	Warning	Harmful if swallowed
Skin Corrosion/Irritation, Category 3	none	Warning	Causes mild skin irritation
Serious Eye Damage/Eye Irritation, Category 2A	Exclamation point	Warning	Causes serious eye irritation
Carcinogenicity, Category 1B	Health hazard	Danger	May cause cancer
Toxic To Reproduction, Category 2	Health hazard	Warning	Suspected of damaging fertility or the unborn child
Target Organ Systemic Toxicity (single exposure), Category 1	Health hazard	Danger	Causes damage to organs (male animal reproductive organs)
Target Organ Systemic Toxicity (repeated exposure), Category 1	Health hazard	Danger	Causes damage to organs (male animal reproductive organs) through prolonged or repeated exposure.

**GHS Hazard Phrases**

- H302 - Harmful if swallowed.
- H316 - Causes mild skin irritation.
- H319 - Causes serious eye irritation.
- H361 - Suspected of damaging fertility or the unborn child .
- H370 - Causes damage to organs (male animal reproductive organs)
- H372 - Causes damage to organs (male animal reproductive organs) through prolonged or repeated exposure.

**GHS Precaution Phrases**

- P264 - Wash hands thoroughly after handling.
- P270 - Do not eat, drink or smoke when using this product.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P201 - Obtain special instructions before use.
- P202 - Do not handle until all safety precautions have been read and understood.
- P281 - Use personal protective equipment as required.
- P260 - Do not breathe dust of dried product.

**GHS Response Phrases**

- P301+312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
- P330 - Rinse mouth.
- P332+313 - If skin irritation occurs, get medical advice/attention.

P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+313 - If eye irritation persists, get medical advice/attention.

P308+313 - IF exposed or concerned: Get medical attention/advice.

P321 - Specific treatment included in this SDS.

P314 - Get medical attention/advice if you feel unwell.

#### **GHS Storage and Disposal Phrases**

P501 - Dispose of contents/container to approved location in accordance with all applicable regulations.

P405 - Store locked up.

#### **Potential Health Effects (Acute and Chronic)**

May be harmful if swallowed, in contact with skin, or if inhaled. Causes skin and eye irritation. Suspected of damaging fertility or the unborn child. Animal ingestion studies in several species, at high doses, indicate that borates cause reproductive and developmental effects. A human study of occupational exposure to borate dust showed no adverse effect on reproduction.

#### **Inhalation**

Harmful if inhaled.

#### **Skin Contact**

Causes mild skin irritation.

#### **Eye Contact**

Causes eye irritation.

#### **Ingestion**

Harmful if swallowed.

#### **Medical Conditions Generally Aggravated By Exposure**

No data available.

#### **OSHA Regulatory Status:**

While this material is not classified as hazardous under OSHA regulations, this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.

### **3. Composition/Information on Ingredients**

<b>Hazardous Components (Chemical Name)</b>	<b>CAS #</b>	<b>Concentration</b>
1. Water	7732-18-5	<50.0 %
2. Propylene glycol	57-55-6	<=40.0 %
3. Copper	7440-50-8	<10 %
4. Clay Mixtures	1302-78.9	<10 %

## 4. First Aid Measures

### Emergency and First Aid Procedures

#### In Case of Inhalation

Give artificial respiration if victim is not breathing. Get medical attention immediately.

#### In Case of Skin Contact

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Thoroughly wash or discard clothing and shoes before reuse.

#### In Case of Eye Contact

Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.

#### In Case of Ingestion

If swallowed, do not induce vomiting unless directed to do so by medical personnel.

#### Signs and Symptoms Of Exposure

Symptoms include: redness, stinging, tearing and swelling.

## 5. Fire Fighting Measures

**Flammability Classification:** Nonflammable

**Flash Pt:** NP

**Explosive Limits:** LEL: No data. UEL: No data.

**Autoignition Pt:** No data available.

#### Fire Fighting Instructions

Not applicable.

#### Flammable Properties and Hazards

Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.

#### Hazardous Combustion Products

No data available.

#### Suitable Extinguishing Media

Product does not support combustion.

#### Unsuitable Extinguishing Media

Product does not support combustion.

## 6. Accidental Release Measures

### Steps To Be Taken In Case Material Is Released Or Spilled

Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container.

### Protective Precautions, Protective Equipment and Emergency Procedures

Wear appropriate protective clothing to prevent skin exposure. Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Wear chemical-resistant gloves (nitrile, vinyl, latex) to protect hands.

### Environmental Precautions

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial and Local regulations.

## 7. Handling and Storage

### Precautions To Be Taken in Handling

Avoid contact with eyes, skin, and clothing. Do not ingest or inhale. Keep container closed when not in use.

### Precautions To Be Taken in Storing

Keep from freezing. Keep container closed to prevent drying out.

**Other Precautions**

Keep container closed when not in use.

**8. Exposure Controls/Personal Protection**

**Other Limits**

**Respiratory Equipment (Specify Type)**

This material does not have established exposure limits. Wear a particulate respirator or NIOSH/MSHA approved respirator.

**Eye Protection**

Splash proof safety goggles.

**Protective Gloves**

Wear chemical-resistant gloves (nitrile, vinyl, latex) to protect hands.

**Other Protective Clothing**

Clothes to prevent skin contact.

**Engineering Controls (Ventilation etc.)**

No special ventilation requirements.

**Work/Hygienic/Maintenance Practices**

Wash thoroughly after handling.

**Environmental Exposure Controls**

No special ventilation requirements.

**9. Physical and Chemical Properties**

<b>Physical States:</b>	[ ] Gas [ X ] Liquid [ ] Solid
<b>Melting Point:</b>	No data.
<b>Boiling Point:</b>	NE
<b>Autoignition Pt:</b>	No data.
<b>Flash Pt:</b>	NP
<b>Specific Gravity (Water = 1):</b>	1.031 - 1.055 at 70.0 F (21.1 C)
<b>Density:</b>	8.60 - 8.80 LB/GA at 70.0 F (21.1 C)
<b>Vapor Pressure (vs. Air or mm Hg):</b>	NE
<b>Vapor Density (vs. Air = 1):</b>	NE

**Evaporation Rate:** NE  
**Solubility in Water:** ~  
**Percent Volatile:** ~ 50 % by weight.  
**pH:** 5.40 - 6.40

**Appearance and Odor**

APPEARANCE: Light brown colored liquid that may have some minor sedimentation upon standing.

**10. Stability and Reactivity**

**Stability:** Unstable [ ] Stable [ X ]

**Reactivity**

Stable. However, may decompose if heated.

**Conditions To Avoid - Instability**

Keep from contact with oxidizing materials.

**Incompatibility - Materials To Avoid**

Strong oxidizing agents.

**Hazardous Decomposition Or Byproducts**

Carbon oxides.

**Possibility of Hazardous Reactions:** Will occur [ ] Will not occur [ X ]

**Conditions To Avoid - Hazardous Reactions**

Product will not undergo polymerization.

**11. Toxicological Information**

**Toxicological Information**

No data available. Reproductive/developmental toxicity: Animal feeding studies in rat, mouse and dog, at high doses, have demonstrated effects on fertility and testes. Studies with the chemically related boric acid in the rat, mouse and rabbit, at high doses, demonstrate developmental effects on the fetus, including fetal weight loss and minor skeletal variations. The doses administered were many times in excess of those to which humans would normally be exposed.

CAS# 57-55-6:

Acute toxicity, LD50, Oral, Rat, 20.00 GM/KG.

Results:

Skin and Appendages: Skin: After systemic exposure: Dermatitis, other.

- Toxicology and Applied Pharmacology, Academic Press, Inc., 1 E. First St., Duluth, MN 55802, Vol/p/yr: 45,362, 1978

CAS# 4468-02-4:

Acute toxicity, LD50, Oral, Mouse, 1290. MG/KG.

Results:

Cardiac:Other changes.

Gastrointestinal:Nausea or vomiting.

Related to Chronic Data - death.

- Zhongguo Yaoxue Zazhi. Chinese Pharmacuetical Journal., China International Book Trading Corp., POB 2820, Beijing China, Vol/p/yr: 24,115, 1989

CAS# 1302-78-9:

Other Studies:, TDLo, Oral, Rat, 700.0 mg/kg.

Results:

Endocrine:Other changes.

- European Journal of Pharmacology., Elsevier Science Pub. B.V., POB 211, 1000 AE, Amsterdam Netherlands,

Vol/p/yr: 551,156, 2006

Acute toxicity, LD50, Intravenous, Rat, 35.00 MG/KG.

Results:

Lungs, Thorax, or Respiration: Acute pulmonary edema.

- Bolletino della Societe Italiana di Biologia Sperimentale., Casa Editrice Idelson, Via A. de Gasperi, 55, 80133, Naples Italy, Vol/p/yr: 44,1685, 1968

CAS# 7440-50-8:

Reproductive Effects:, TDLo, Oral, Rat, 152.0 MG/KG, female 22 week(s) pre-mating.

Results:

Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

Specific Developmental Abnormalities: Central nervous system.

- Gigiena i Sanitariya, Mezhdunarodnaya Kniga, ul. B. Yakimanka, 39, 113095, Moscow 113095 Russia, Vol/p/yr: 45(3),8, 1980

CAS# 25322-68-3:

Acute toxicity, LD50, Oral, Rat, 28.00 GM/KG.

Results:

Maternal Effects: Uterus, cervix, vagina.

Effects on Fertility: Pre-implantation mortality (e.g., reduction in number of implants per female; total number of implants per corpora lutea).

- Dow Chemical Company Reports., Dow Chemical USA, Health and Environment Research, Toxicology Research Lab, Midland, MI 48640, Vol/p/yr: MSD-1112,

Acute toxicity, LD50, Oral, Rat, 27500. MG/KG.

Results:

Kidney, Ureter, Bladder: Other changes.

- Arzneimittel-Forschung. Drug Research. (Editio Cantor Verlag., Vol/p/yr: 3,451, 1953

#### **Chronic Toxicological Effects**

No data available.

#### **Irritation or Corrosion**

Moderate skin irritation.

#### **Symptoms related to Toxicological Characteristics**

No data available.

#### **Carcinogenicity/Other Information**

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Carcinogenicity:** NTP? No IARC Monographs? No OSHA Regulated? No

## 12. Ecological Information

### General Ecological Information

Toxic to aquatic life.

CAS# 57-55-6:

LC50, Water Flea (Ceriodaphnia dubia), 18340000. UG/L, 48 H, Mortality, Water temperature: 25.00 C (77.0 F)  
C, pH: 8.20, Hardness: 86.00 MG/L.

Results:

Age Effects.

- Comparative Toxicity of Formulated Glycol Deicers and Pure Ethylene and Propylene Glycol to Ceriodaphnia dubia and Pimephales promelas, Pillard, D.A., 1995

CAS# 7440-50-8:

LC50, Water Flea (Daphnia magna), 53.00 - 46.00 UG/L, 48 H, Mortality, Water temperature: 19.00 C (66.2 F)  
C, pH: 8.15, Hardness: 168.00 MG/L; The Significance of Weight Loss of Daphnia magna Straus During Acute  
Toxicity Tests with Copper, Lazorchak, J.M., 1987

CAS# 26172-55-4:

Effective concentration to 50% of test organisms., Water Flea (Daphnia magna), 1.300 PPM, 48 H, Intoxication,;  
Pesticide Ecotoxicity Database (Formerly: Environmental Effects Database (EEDB)), Office of Pesticide  
Programs, 2000

CAS# 2682-20-4:

Effective concentration to 50% of test organisms., Water Flea (Daphnia magna), 0.180 PPM, 48 H, Intoxication,;  
Pesticide Ecotoxicity Database (Formerly: Environmental Effects Database (EEDB)), Office of Pesticide  
Programs, 2000

### Results of PBT and vPvB assessment

No data available.

### Persistence and Degradability

No data available.

### Bioaccumulative Potential

No data available.

### Mobility in Soil

No data available.

## 13. Disposal Considerations

### Waste Disposal Method

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial and Local regulations.

## 14. Transport Information

### LAND TRANSPORT (US DOT)

**DOT Proper Shipping Name**

Not Regulated.

**DOT Hazard Label:** None

### LAND TRANSPORT (Canadian TDG)

**TDG Shipping Name** Not Regulated.

**Hazard Class:** None

### LAND TRANSPORT (European ADR/RID)

**ADR/RID Shipping Name** Not Regulated.

**Hazard Class:** None

### AIR TRANSPORT (ICAO/IATA)

**ICAO/IATA Shipping Name** Not Regulated.

**Hazard Class:** None

### MARINE TRANSPORT (IMDG/IMO)

**IMDG/IMO Shipping Name** Not Regulated. Does contain low percentage of chemicals with aquatic toxicity.

**Hazard Class:** None

**Marine Pollutant:** Yes

## 15. Regulatory Information

### US EPA SARA Title III



**SARA (Superfund Amendments and Reauthorization Act of 1986) Lists:**

- Sec.302:** EPA SARA Title III Section 302 Extremely Hazardous Chemical with TPQ. \* indicates 10000 LB TPQ if not volatile.
- Sec.304:** EPA SARA Title III Section 304: CERCLA Reportable + Sec.302 with Reportable Quantity. \*\* indicates statutory RQ.
- Sec.313:** EPA SARA Title III Section 313 Toxic Release Inventory. Note: -Cat indicates a member of a chemical category.
- Sec.110:** EPA SARA 110 Superfund Site Priority Contaminant List

**TSCA (Toxic Substances Control Act) Lists:**

- Inventory:** Chemical Listed in the TSCA Inventory.
- 5A(2):** Chemical Subject to Significant New Rules (SNURS)
- 6A:** Commercial Chemical Control Rules
- 8A:** Toxic Substances Subject To Information Rules on Production
- 8A CAIR:** Comprehensive Assessment Information Rules - (CAIR)
- 8A PAIR:** Preliminary Assessment Information Rules - (PAIR)
- 8C:** Records of Allegations of Significant Adverse Reactions
- 8D:** Health and Safety Data Reporting Rules
- 8D TERM:** Health and Safety Data Reporting Rule Terminations
- 12(b):** Notice of Export

**Other Important Lists:**

- CWA NPDES:** EPA Clean Water Act NPDES Permit Chemical
- CAA HAP:** EPA Clean Air Act Hazardous Air Pollutant
- CAA ODC:** EPA Clean Air Act Ozone Depleting Chemical (1=CFC, 2=HCFC)
- CA PROP 65:** California Proposition 65

**International Regulatory Lists:**

**EPA Hazard Categories:**

This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections 311/312 as indicated:

- Yes  No Acute (immediate) Health Hazard
- Yes  No Chronic (delayed) Health Hazard
- Yes  No Fire Hazard
- Yes  No Sudden Release of Pressure Hazard

[ ] Yes [X] No Reactive Hazard

## 16. Other Information

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