# KP FOR TL-2000 - SAFETY DATA SHEET

## SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>Product name</th>
<th>KP- additive for bitumen.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synonym</td>
<td>Not available.</td>
</tr>
<tr>
<td>Chemical formula</td>
<td>Mixture.</td>
</tr>
<tr>
<td>Registration numbers</td>
<td>Not allocated.</td>
</tr>
<tr>
<td>Manufacturer/Supplier</td>
<td>HALIK Ltd.</td>
</tr>
<tr>
<td>Address</td>
<td>24 Tamuz St., Kiryat Gat 82000, Israel.</td>
</tr>
<tr>
<td>Phone number</td>
<td>972-8-6817453/4</td>
</tr>
<tr>
<td>Fax number</td>
<td>972-8-6814020</td>
</tr>
<tr>
<td>E-mail</td>
<td><a href="mailto:info@halik.biz">info@halik.biz</a></td>
</tr>
<tr>
<td>Website</td>
<td><a href="http://www.halik.biz">www.halik.biz</a></td>
</tr>
</tbody>
</table>

## SECTION 2. COMPOSITION AND INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>CAS No.</th>
<th>Conc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bitumen (petroleum dist. Vacuum residues)*</td>
<td>64741-56-6</td>
<td>&lt; 40%</td>
</tr>
<tr>
<td>Polystyrene</td>
<td>9003-53-6</td>
<td>&lt; 10%</td>
</tr>
<tr>
<td>Thermoplastic elastomer</td>
<td>Dependent on the type</td>
<td>&lt; 15%</td>
</tr>
<tr>
<td>Styrene monomer</td>
<td>9003-53-6</td>
<td>&lt; 40%</td>
</tr>
</tbody>
</table>
SECTION 3. HAZARDS IDENTIFICATION

Effects of short-term exposure
May irritate the eyes, respiratory tract and (slightly) skin.

Inhalation
May cause irritation. Vapors may cause headache, nausea and/or dizziness. In application, normally reduced inhalation hazard due to high vapor density and rapid polymerization upon contact with air.

Skin contact
May cause irritation.

Eye contact
May cause irritation.

Ingestion
No normal route of exposure. Causes irritation.

Effects of regular exposure
Frequent and prolonged contact of the skin with the product may cause dermatitis.

Medical conditions which may be aggravated by contact with the product
Pre-existing skin diseases.

<table>
<thead>
<tr>
<th>Antioxidants</th>
<th>97123-41-6</th>
<th>&lt; 2%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixed fatty acids</td>
<td>68937-92-8</td>
<td>&lt; 40%</td>
</tr>
<tr>
<td>Hydro carbon formulations</td>
<td>72623-86-0</td>
<td>&lt; 10%</td>
</tr>
<tr>
<td>Waxes</td>
<td>8002-74-2</td>
<td>&lt; 3%</td>
</tr>
<tr>
<td>Xylene</td>
<td>97123-41-6</td>
<td>&lt; 60%</td>
</tr>
</tbody>
</table>
Hazards for environment
After polymerization taking about an hour in the open air (depending on ambient temperature, air humidity, etc.), doesn't contaminate the environment.

SECTION 4. FIRST AID MEASURES

Inhalation
Evacuate to a place with fresh air. If respiration is difficult, provide oxygen. If irritation or persistent problems develop, seek medical attention.

Skin contact
Remove contaminated clothes. Wash thoroughly with warm water and non-abrasive soap. From uninjured skin, the product can be easily removed with mineral oil. If irritation or persistent problems develop, seek medical attention.

Eye contact
Immediately wash with much water for at least 15 minutes keeping the eyelids wide open. Never use any eye ointment. If irritation or persistent problems develop, seek medical attention.

Ingestion
Don't induce vomiting. Have conscious person drink several glasses of water or milk. Clear the mouth and keep at rest. Call a physician. In case of spontaneous vomiting, prevent aspiration into the respiratory tract.

Notes on methods of treatment
Treat depending on symptoms.

SECTION 5. FIRE AND EXPLOSION DATA

Flammability of the product
Flammable.

Flash point
30 ºC -100 ºC (adjustable) (ASTM D-93)

Auto-ignition temperature
Not available.
Products of combustion

Carbon oxides and other unidentified compounds.

Fire hazards

Flammable in the presence of open flames, sparks or excessive heat.

Extinction agents

Carbon dioxide (CO2), dry chemical powder, foam. Don’t use water directly.

Special fire-fighting methods

Use water mist to cool product containers if they get heated.

Personal protective equipment

Protective clothes, footwear and breathing masks.

for firemen

Explosion hazards

Non-explosive.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Emergency measures in case of spilling

Slippery when spilt, avoid accidents. Stop leakage. Eliminate sources of ignition. Use sand or earth to absorb the spilled product. Put it into a metal container. Clean up the area of spilling.

Personal protective equipment for fighting the emergency

Protective clothes and footwear, safety goggles with side protection, respirator with filters for organic vapors.

Precautions to avoid damage to environment

Avoid penetration into natural water courses, water wells and sewer systems. After polymerization taking about an hour in the open air, doesn’t contaminate the environment.

Purification methods

Absorb the product remnants with inert materials and put into a metal container. Wash open surfaces with much water and industrial detergents.

Waste disposal methods

See Section 13.
SECTION 7. HANDLING AND STORAGE

Precautions
Handle with care in the open air or in well-ventilated areas.
Avoid contact with eyes and skin. Keep away from foodstuffs, drinks and tobacco. Eating, drinking and smoking should be prohibited in areas where the product is handled, stored or processed. Workers should wash hands and face before eating, drinking or smoking. Ensure that eye washing facilities, safety showers and lavatories are proximal to workstation location.

Storage conditions
Store in tightly closed containers outdoors or in ventilated rooms. Keep away from sources of heat and ignition. Keep away from highly oxidizing products. Provide safety showers and lavatories.

SECTION 8: EXPOSURE CONTROL / SPECIAL PROTECTION

Measures to reduce the exposure
Adequate ventilation. Good practice of personal and industrial hygiene. Provide safety showers and lavatories.

Parameters under control
None.

Personal protection
Protective clothes and footwear, impervious gloves, splash goggles with side protection. During spray application, air purifying respirator with organic vapor filters.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state and appearance
Murky liquid with mild characteristic odor.

Boiling point
Not available.

Flash point
30 ºC - 200 ºC. adjustable (ASTM D-93)
Specific gravity: 0.90-0.92, @15 °C (ASTM D-1298)

Vapor pressure: Not available.

Vapor density: Heavier than air.

Volatility: Not available.

Viscosity: 850-1000 CST, @25 °C (ASTM D-445)

Solubility: Insoluble in water.

SECTION 10. STABILITY AND REACTIVITY DATA

Stability: Stable under normal conditions of use and storage. Polymerization occurs upon contact with air.

Conditions to be avoided: Contact with open fire, high temperatures, contact with incompatible materials.

Incompatible materials: Strong oxidants (chlorates, chlorine, peroxides, acids, alkalis, etc.).

SECTION 11. TOXICOLOGICAL INFORMATION

Routes of entry: Inhalation, skin contact, eye contact, ingestion.

Toxic effects on humans: The product is irritating to mucous membranes, upper respiratory tract, eyes, and also to skin (slightly). Inhalation may cause headaches, nausea and vomiting. May be aggravating to some pre-existing skin and asthma-type conditions.

Chronic effects on humans: No information available.

SECTION 12. ECOLOGICAL INFORMATION

Effects on environment: After polymerization taking about an hour in the open air, doesn't contaminate the environment.
### SECTION 13. DISPOSAL CONSIDERATIONS

| Disposal of remnants and waste | In accordance with municipal and regional regulations. Consult your local or regional authorities. Remnants can be disposed of by incineration in suitable ovens. May also be recycled. |
| Disposal of contaminated containers and packages | Empty containers must be handled with care due to product residue. Don’t heat or cut empty containers with electric or gas torches. |

### SECTION 14. TRANSPORT INFORMATION

| Hazards in transportation | Not regulated as hazardous material for transportation. |
| Special provisions for transport | No additional remarks. |

### SECTION 15. OTHER REGULATORY INFORMATION

| Other regulations | TSCA (Toxic Substances Control Act). |

### SECTION 16. OTHER INFORMATION

| References | Manufacturer’s Data Sheets and other Manufacturer’s documents. |
| Other special considerations | Individuals with respiratory problems (asthma, chronic bronchitis, etc.) should avoid any contact with this product. |

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