1 Identification

· **Product Identifier**
  · Trade Name: Tire Sealant
  · Relevant identified uses of the substance or mixture and uses advised against:
    No further relevant information available.
  · **Product Description:**
    This tire sealant is inserted into the tube prior to tube inflation and is used to seal tire punctures.

· **Details of the Supplier of the Safety Data Sheet:**
  · Manufacturer/Supplier:
    Marastar LLC
    7925 South 196th Street
    Kent, WA 98032 USA
    Ph: 253-893-7014
    Fax: 253-893-7021
  · Emergency telephone number:
    Chemtrec (US): (800) 424-9300
    Chemtrec (Outside US): (703) 527-3887 (Collect calls accepted)

2 Hazard(s) Identification

· **Classification of the substance or mixture:**
  · Health hazard
    STOT RE 2  H373  May cause damage to the central nervous system, the kidneys and the heart through prolonged or repeated exposure.

· **Label elements:**
  · **GHS label elements**
    The product is classified and labeled according to the Globally Harmonized System (GHS).
  · **Hazard pictograms:**
    GHS07  GHS08

· **Signal word:** Warning

· **Hazard-determining components of labeling:**
  · Ethylene glycol

· **Hazard statements:**
  · H302 Harmful if swallowed.
  · H373 May cause damage to the central nervous system, the kidneys and the heart through prolonged or repeated exposure.

· **Precautionary statements:**
  · P260 Do not breathe dust/fume/gas/mist/vapors/spray.
  · P264 Wash thoroughly after handling.

(Contd. on page 2)
Safety Data Sheet (SDS)
OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Trade Name: Tire Sealant

P270  Do not eat, drink or smoke when using this product.
P301+P312 If swallowed: Call a poison center/doctor if you feel unwell.
P330  Rinse mouth.
P314  Get medical advice/attention if you feel unwell.
P501  Dispose of contents/container in accordance with local/regional/national/international regulations.

Unknown acute toxicity:
This value refers to knowledge of known, established toxicological or ecotoxicological values.
9.3 % of the mixture consists of component(s) of unknown toxicity.

Classification system:
NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme

NFPA ratings (scale 0 - 4)

- Health = 2
- Fire = 1
- Reactivity = 0

HMIS-ratings (scale 0 - 4)

- HEALTH
- Fire = 1
- Physical Hazard = 0

Hazard(s) not otherwise classified (HNOC): None known

3 Composition/Information on Ingredients

Chemical characterization: Mixtures

Description: Mixture of substances listed below with non-hazardous additions.

Dangerous Components:

<table>
<thead>
<tr>
<th>CAS</th>
<th>RTECS</th>
<th>Description</th>
<th>H373</th>
<th>H302</th>
</tr>
</thead>
<tbody>
<tr>
<td>107-21-1</td>
<td>KW 2975000</td>
<td>Ethylene glycol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9004-34-6</td>
<td></td>
<td>Cellulose</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

STOT RE 2, Acute Tox. 4

Additional information:
The exact percentages of the ingredients of this mixture are considered to be proprietary and are withheld in accordance with the provisions of paragraph (i) of §1910.1200 of 29 CFR 1910.1200 Trade Secrets.
There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4 First-Aid Measures

Description of first aid measures

General information:
Symptoms of poisoning may occur after exposure to dust, fumes or particulates; seek medical attention if feeling unwell.

After inhalation:
Supply fresh air. If required, provide artificial respiration. Consult doctor if symptoms persist.
In case of unconsciousness place patient stably in side position for transportation.

After skin contact:
Immediately wash with water and soap and rinse thoroughly.
If skin irritation occurs, consult a doctor.

After eye contact:
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing:
Do not induce vomiting.

(Contd. on page 3)
Trade Name: Tire Sealant

Call a doctor immediately.

- **Information for doctor**: Treat symptomatically and supportively. No specific antidote.
- **Most important symptoms and effects, both acute and delayed**: No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**: No further relevant information available.

## 5 Fire-Fighting Measures

- **Extinguishing media**
  - **Suitable extinguishing agents**: Use fire fighting measures that suit the environment.
  - **For safety reasons unsuitable extinguishing agents**: No further relevant information.
  - **Special hazards arising from the substance or mixture**: No further relevant information available.
- **Advice for firefighters**
  - **Special protective equipment for firefighters**: As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.
  - **Additional information**: May be combustible at high temperature.

## 6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures**: Not required.
- **Environmental precautions**:
  - Dilute with plenty of water.
  - Do not allow to enter sewers/surface or ground water.
- **Methods and material for containment and cleaning up**:
  - Ensure adequate ventilation.
  - Absorb with liquid-binding material (i.e. sand, diatomite, acid binders, universal binders, sawdust).
  - Dispose contaminated material as waste according to section 13.
- **Reference to other sections**:
  - See Section 7 for information on safe handling.
  - See Section 8 for information on personal protection equipment.
  - See Section 13 for disposal information.

### Protective Action Criteria for Chemicals

- **PAC-1**: 107-21-1 Ethylene glycol 30 ppm
- **PAC-2**: 107-21-1 Ethylene glycol 150 ppm
- **PAC-3**: 107-21-1 Ethylene glycol 900 ppm

## 7 Handling and Storage

- **Handling**
  - **Precautions for safe handling**:
    - Ensure good ventilation/exhaustion at the workplace.
    - Prevent formation of aerosols.
  - **Information about protection against explosions and fires**: No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
  - **Requirements to be met by storerooms and receptacles**: Store in the original container.
  - **Information about storage in one common storage facility**: Not required.
  - **Further information about storage conditions**: Keep receptacle tightly sealed.
Trade Name: Tire Sealant

- **Specific end use(s):** No further relevant information available.

### 8 Exposure Controls/Personal Protection

- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters:**
  - **Components with occupational exposure limits:**
    | Component          | TLV Short-term value: 10** mg/m³, 50* ppm |
    |--------------------|-------------------------------------------|
    | Ethylene glycol    | Long-term value: 25* ppm                 |
    |                    | *vapor fraction:*inh. fraction, aerosol only |
    | WEEL I (2)         |                                           |
    | Cellulose          | Long-term value: 15* 5** mg/m³           |
    |                    | *total dust **respirable fraction         |
    |                    | REL Long-term value: 10* 5** mg/m³       |
    |                    | *total dust **respirable fraction         |
    |                    | TLV Long-term value: 10 mg/m³            |

- **Additional information:** The lists that were valid during the creation of this SDS were used as basis.

- **Exposure controls:**
  - **Personal protective equipment**
  - **General protective and hygienic measures:**
    The usual precautionary measures for handling chemicals should be followed.
    Keep away from foodstuffs, beverages and feed.
    Wash hands before breaks and at the end of work.
  - **Breathing equipment:**
    In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure, use respiratory protective device that is independent of circulating air.
  - **Protection of hands:**
    Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Select glove material based on penetration times, rates of diffusion and degradation.

- **Material of gloves:**
  The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material:**
  The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.

(Contd. on page 5)
Trade Name: Tire Sealant

- Eye protection:
  Goggles recommended during refilling.

9 Physical and Chemical Properties

- Information on basic physical and chemical properties
- General Information
  - Appearance:
    - Form: Liquid
    - Color: Various colors
  - Odour: Slight
  - Odor threshold: Not determined.
  - pH-value @ 20 °C (68 °F): 8.25
- Change in condition
  - Melting point/Melting range: -38 °C (-36.4 °F)
  - Boiling point/Boiling range: ≥100 °C (≥212 °F)
- Flash point: 111 °C (231.8 °F)
- Flammability (solid, gaseous): Not applicable.
- Ignition temperature: 410 °C (770 °F)
- Decomposition temperature: Not determined.
- Auto igniting: Product is not self-igniting.
- Danger of explosion: Product does not present an explosion hazard.
- Explosion limits:
  - Lower: 0 Vol %
  - Upper: 53 Vol %
- Vapor pressure @ 38 °C (100.4 °F): 107 hPa (80.3 mm Hg)
- Density @ 20 °C (68 °F): 1.08 g/cm³ (9.0126 lbs/gal)
- Relative density: Not determined.
- Vapor density: Not determined.
- Evaporation rate: Not determined.
- Solubility in / Miscibility with:
  - Water: Partly soluble.
- Partition coefficient (n-octanol/water): Not determined.
- Viscosity:
  - Dynamic: Not determined.
  - Kinematic: Not determined.
- Solvent content:
  - Water: 53.2 %
  - VOC content: 44.9 %
  - Solids content: 3-20.5 %

(Contd. on page 6)
10 Stability and Reactivity

- **Reactivity:** No further relevant information available.
- **Chemical stability:** Stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** No further relevant information available.
- **Incompatible materials:** Strong oxidizing agents.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological Information

- **Information on toxicological effects:**
  - **Acute toxicity:**
    - **LD/LC50 values that are relevant for classification:**
      - 107-21-1 Ethylene glycol
        - Oral LD50: 5,840 mg/kg (Rat)
        - Dermal LD50: 9,530 mg/kg (Rabbit)
        - Inhalative LD50/96 hours: 38.109 mg/l (Trout)
        - Inhalative LD50/48 hrs: 16.103 mg/l (Daphnia)
      - 9004-34-6 Cellulose
        - Oral LD50: >5,000 mg/kg (Rat)
        - Dermal LD50: >2,000 mg/kg (Rabbit)
  - **Primary irritant effect:**
    - **On the skin:** May be irritating.
    - **On the eye:** May be irritating.
    - **Sensitization:** No sensitizing effects known.
  - **Additional toxicological information:**
    - The product shows the following dangers according to internally approved calculation methods for preparations:
      - Harmful
  - **Carcinogenic categories:**
    - **IARC (International Agency for Research on Cancer):**
      - None of the ingredients are listed.
    - **NTP (National Toxicology Program):**
      - None of the ingredients are listed.
    - **OSHA-Ca (Occupational Safety & Health Administration):**
      - None of the ingredients are listed.

12 Ecological Information

- **Toxicity:**
  - **Aquatic toxicity:**
    - 107-21-1 Ethylene glycol
      - EC50: 3.536 mg/l (Green algae)
  - **Persistence and degradability:** No further relevant information available.

(Contd. on page 7)
Trade Name: Tire Sealant

- **Behavior in environmental systems:**
- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
  Water hazard class 1 (Self-assessment): slightly hazardous for water
  Do not allow undiluted product or product that has not been neutralized to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment:**
  - PBT: Not applicable.
  - vPvB: Not applicable.
- **Other adverse effects:** No further relevant information available.

### 13 Disposal Considerations

- **Waste treatment methods**
- **Recommendation:**
  Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Observe all federal, state and local environmental regulations when disposing of this material.

- **Uncleaned packaging**
- **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport Information

- **UN-Number:**
  DOT, ADR/ADN, ADN, IMDG, IATA
  Non-Regulated Material

- **UN proper shipping name:**
  DOT, ADR/ADN, ADN, IMDG, IATA
  Non-Regulated Material

- **Transport hazard class(es):**
  DOT, ADR/ADN, ADN, IMDG, IATA
  Class: Non-Regulated Material

- **Packing group:**
  DOT, ADR/ADN, IMDG, IATA
  Non-Regulated Material

- **Environmental hazards:**
  Not applicable.

- **Special precautions for user:**
  Not applicable.

- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:**
  Not applicable.

- **UN "Model Regulation":**
  Non-Regulated Material

### 15 Regulatory Information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture:**
- **SARA (Superfund Amendments and Reauthorization):**
  - **Section 355 (extremely hazardous substances):**
    None of the ingredients are listed.
  - **Section 313 (Specific toxic chemical listings):**
    107-21-1 Ethylene glycol

- **TSCA (Toxic Substances Control Act):**
  107-21-1 Ethylene glycol
  9004-34-6 Cellulose
  7732-18-5 Water, distilled water, deionized water

(Contd. on page 8)
Trade Name: Tire Sealant

- **California Proposition 65:**
  - **Chemicals known to cause cancer:** None of the ingredients are listed.
  - **Chemicals known to cause reproductive toxicity for females:** None of the ingredients are listed.
  - **Chemicals known to cause reproductive toxicity for males:** None of the ingredients are listed.
  - **Chemicals known to cause developmental toxicity:**
    - 107-21-1 Ethylene glycol

- **New Jersey Right-to-Know List:**
  - 107-21-1 Ethylene glycol
  - 9004-34-6 Cellulose

- **New Jersey Special Hazardous Substance List:** None of the ingredients are listed.

- **Pennsylvania Right-to-Know List:**
  - 107-21-1 Ethylene glycol
  - 9004-34-6 Cellulose

- **Pennsylvania Special Hazardous Substance List:**
  - 107-21-1 Ethylene glycol

- **Carcinogenic categories:**
  - **EPA (Environmental Protection Agency):** None of the ingredients are listed.
  - **TLV (Threshold Limit Value established by ACGIH):**
    - 107-21-1 Ethylene glycol A4
  - **NIOSH-Ca (National Institute for Occupational Safety and Health):** None of the ingredients are listed.

- **GHS label elements**
  - The product is classified and labeled according to the Globally Harmonized System (GHS).
  - **Hazard pictograms:**
    - GHS07
    - GHS08

- **Signal word:** Warning

- **Hazard-determining components of labeling:** Ethylene glycol

- **Hazard statements:**
  - H302 Harmful if swallowed.
  - H373 May cause damage to the central nervous system, the kidneys and the heart through prolonged or repeated exposure.

- **Precautionary statements:**
  - P260 Do not breathe dust/fume/gas/mist/vapors/spray.
  - P264 Wash thoroughly after handling.

(Contd. on page 9)
Safety Data Sheet (SDS)

Issue date 07/27/2018 Reviewed on 07/27/2018

Trade Name: Tire Sealant

P270 Do not eat, drink or smoke when using this product.
P301+P312 If swallowed: Call a poison center/doctor if you feel unwell.
P330 Rinse mouth.
P314 Get medical advice/attention if you feel unwell.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- National regulations:
None of the ingredients are listed.

- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other Information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

- Date of preparation / last revision: 07/27/2018 / 5

- Abbreviations and acronyms:
  - ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road
  - ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
  - IMDG: International Maritime Code for Dangerous Goods
  - DOT: US Department of Transportation
  - IATA: International Air Transport Association
  - ACGIH: American Conference of Governmental Industrial Hygienists
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - NFPA: National Fire Protection Association (USA)
  - HMIS: Hazardous Materials Identification System (USA)
  - VOC: Volatile Organic Compounds (USA, EU)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative
  - NIOSH: National Institute for Occupational Safety and Health
  - OSHA: Occupational Safety & Health Administration
  - TLV: Threshold Limit Value
  - PEL: Permissible Exposure Limit
  - REL: Recommended Exposure Limit
  - Acute Tox. 4: Acute toxicity – Category 4
  - STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

* Data compared to the previous version altered.

SDS created by MSDS Authoring Services www.msdsauthoring.com +1-877-204-9106