1 Identification

- Product identifier 50768-001
- Trade name: ORANGE-SOL Industrial Formula
- Application of the substance / the mixture
  Removal of adhesives, asphalt, tar, fresh blood, chewing gum, crayon, grease, scuff marks, oil, soap scum, wax, etc.
- Details of the supplier of the safety data sheet
  Manufacturer/Supplier:
  Ratermann Manufacturing, Inc.
  601 Pinnacle Place
  Livermore, CA 94550
  Telephone Number: 800-264-7793
- Information department: Product safety department
- Emergency telephone number:
  Infotrac
  800-535-5053

2 Hazard(s) Identification

- Classification of the substance or mixture
  H227 Combustible liquid.

  Classification according to Directive 67/548/EEC or Directive 1999/45/EC Not applicable.
  Information concerning particular hazards for human and environment:
  The product does not have to be labeled due to the calculation procedure of international guidelines.
  Classification system:
  The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

- Label elements

- Labelling according to EU guidelines:
  Observe the general safety regulations when handling chemicals.
  The product is not subject to identification regulations according to directives on hazardous materials.
- Classification system:
- NFPA ratings (scale 0 - 4)

  Health = 0
  Fire = 2
  Reactivity = 0

- HMIS-ratings (scale 0 - 4)

  HEALTH 0 Health = 0
  FIRE 2 Fire = 2
  REACTIVITY 0 Reactivity = 0

- Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable.

(Contd. on page 2)
3 Composition/Information on Ingredients

- **Chemical characterization:** Mixtures
- **Description:** Mixture of the substances listed below with nonhazardous additions.
- **Dangerous components:** No hazardous components

4 First-Aid Measures

- **Description of first aid measures**
- **General information:** No special measures required.
- **After inhalation:** Move to fresh air. If irritation develops and persists, contact a physician.
- **After skin contact:** Remove affected clothing. Wash skin thoroughly with soap and water. Irritation develops and persists, contact a physician.
- **After eye contact:** Remove contact lenses, flush with water for at least 15 minutes while lifting eyelids. If irritation develops and persists, contact a physician.
- **After swallowing:** Do not induce vomiting. May cause chemical pneumonia if aspirated into lungs.
- **Information for doctor:**
  - 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:** Treat as Oil Fire CO2 Dry Chemical Foam.
- **Special hazards arising from the substance or mixture**
  - As with any organic material, combustion will produce carbon dioxide and/or carbon monoxide.
- **Advice for firefighters**
  - Do not use streams of water; may spread burning liquid.
- **Protective equipment:**
  - Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures**
  - Not required.
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:**
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Reference to other sections**
  - See Section 7 for information on safe handling.
  - See Section 8 for information on personal protection equipment.
7 Handling and Storage

- Handling:
  - Precautions for safe handling
    No special measures required.
    Avoid prolonged skin contact. Wash affected skin after using.
  - Conditions for safe storage, including any incompatibilities
    Store in dry, cool and well-ventilated area.
- Storage:
  - Requirements to be met by storerooms and receptacles:
  - Information about storage in one common storage facility: Not required.
  - Further information about storage conditions: None.
  - 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 item 7.
- Control parameters
  - Components with limit values that require monitoring at the workplace:
    The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- Exposure controls
  - Personal protective equipment:
    - General protective and hygienic measures:
      The usual precautionary measures for handling chemicals should be followed.
    - Breathing equipment: Avoid breathing mist.
    - Protection of hands: Gloves recommended for over-exposure.
    - Material of gloves: Chemical resistant gloves.
    - Eye protection: Goggles recommended based on splash potential.

9 Physical and Chemical Properties

- Information on basic physical and chemical properties
  - General Information
  - Appearance:
    - Form: Fluid
    - Color: Clear-orange
    - Odor: Citrus odor
  - pH-value: None
- Change in condition
  - Boiling point/Boiling range: Undetermined.
- Flash point: 71 °C (160 °F) (PMCC, ASTM D-93)
Safety Data Sheet acc. to OSHA HCS

Trade name: ORANGE-SOL Industrial Formula

- Flammability (solid, gaseous): Non-Flammable
- Auto ignition: Product is not selfigniting.
- Danger of explosion: Product does not present an explosion hazard.
  
<table>
<thead>
<tr>
<th>Explosion limits:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower: Not determined.</td>
</tr>
<tr>
<td>Upper: Not determined.</td>
</tr>
</tbody>
</table>

- Vapor pressure at 20 °C (68 °F): <.2mm Hg

<table>
<thead>
<tr>
<th>Weight per Gallon:</th>
<th>6.65 lbs/gal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific Gravity:</td>
<td>.799</td>
</tr>
<tr>
<td>Vapour density</td>
<td>(Air=1) 4.5</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>(BuAc=1) 0.06</td>
</tr>
</tbody>
</table>

- Solubility in / Miscibility with Water: Not miscible or difficult to mix.
- Other information: No further relevant information available.

10 Stability and Reactivity

- Reactivity: Not determined.
- Chemical stability: Stable
- Thermal decomposition / conditions to be avoided:
  No decomposition if used according to specifications.
- Possibility of hazardous reactions: No dangerous reactions known.
- Conditions to avoid: Keep away from heat or source of ignition.
- Incompatible materials: Strong oxidizers, acids and alcalis.
- Hazardous decomposition products: CO, CO2

11 Toxicological Information

- Information on toxicological effects
- Acute toxicity:
  - Primary irritant effect:
    - on the skin: Mild skin irritant
    - on the eye: Mild eye irritant
  - Sensitization: No sensitizing effects known.

- Additional toxicological information:
  The product is not subject to classification according to internally approved calculation methods for preparations:
  When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

- Carcinogenic categories
  - IARC (International Agency for Research on Cancer)

None of the ingredients is listed.
Safety Data Sheet
acc. to OSHA HCS

Trade name: ORANGE-SOL Industrial Formula

12 Ecological Information

- Toxicity
  - Aquatic toxicity: No further relevant information available.
  - Persistence and degradability: No further relevant information available.
  - Behavior in environmental systems:
    - Bioaccumulative potential: No further relevant information available.
    - Mobility in soil: No further relevant information available.
  - Additional ecological information:
    - General notes: Biodegradable
  - 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:
    - Biodegradable
    - This product has been evaluated for RCRA characteristics and does not meet the criteria for a hazardous waste, if discarded in its purchased form.
  - Uncleaned packagings:
    - Recommendation: Disposal must be made according to official regulations.

14 Transport Information

- UN-Number
  - NA
- DOT, ADN, IMDG, IATA
  - not regulated
- UN proper shipping name
  - Not Regulated
- DOT, ADN, IMDG, IATA
  - not regulated
- Transport hazard class(es)
  - DOT, ADN, IMDG, IATA
  - Class
  - not regulated
- Packing group
  - DOT, IMDG, IATA
  - Not Regulated
  - not regulated

(Contd. on page 6)
15 Regulatory Information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
  
  **Sara**
  
  - **Section 355 (extremely hazardous substances):**
    None of the ingredients is listed.
  
  - **Section 313 (Specific toxic chemical listings):**
    None of the ingredients is listed.
  
  - **TSCA (Toxic Substances Control Act):**
    None of the ingredients is listed.
  
  - **Proposition 65**
    None of the ingredients is listed.
  
  - **Chemicals known to cause cancer:**
    None of the ingredients is listed.
  
  - **Chemicals known to cause reproductive toxicity for females:**
    None of the ingredients is listed.
  
  - **Chemicals known to cause reproductive toxicity for males:**
    None of the ingredients is listed.
  
  - **Chemicals known to cause developmental toxicity:**
    None of the ingredients is listed.

- **Carcinogenic categories**
  
  - **EPA (Environmental Protection Agency)**
    None of the ingredients is listed.
  
  - **TLV (Threshold Limit Value established by ACGIH)**
    None of the ingredients is listed.
  
  - **NIOSH-Ca (National Institute for Occupational Safety and Health)**
    None of the ingredients is listed.

- **Product related hazard informations:**
  Observe the general safety regulations when handling chemicals.
  The product is not subject to identification regulations according to directives on hazardous materials.

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.
16 Other Information

- **Department issuing SDS:** Environment protection department.
- **Contact:** Jack Farnsworth
- **Date of preparation / last revision:** 09/02/2015 / -
- **Abbreviations and acronyms:**
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - 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)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent