SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name  PURE Hard Surface

Other means of identification

Product Code  30250

Recommended use of the chemical and restrictions on use

Recommended Use  Ready To Use Hard Surface Disinfectant and Food Contact Surface Sanitizer

Uses advised against

It is a violation of federal law to use this product in a manner inconsistent with its labeling

Details of the supplier of the safety data sheet

Manufacturer Address

Packers Chemical

3729 Peddle Hollow Road

Kieler, WI 53812

Emergency telephone number

Company Phone Number  888-671-5366

Emergency Telephone  Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Label elements

Emergency Overview

Hazard statements

May cause slight eye irritation

Appearance  Aqueous solution

Physical state  Liquid

Odor  Odorless

Precautionary Statements - Prevention

Avoid direct skin and eye contact.

Precautionary Statements - Response

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

If eye irritation persists: Get medical advice/attention

Hazards not otherwise classified (HNOC)

Not Applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>&gt; 95</td>
</tr>
<tr>
<td>Citric acid</td>
<td>77-92-9</td>
<td>&lt; 5.0</td>
</tr>
<tr>
<td>Silver ions</td>
<td>30250</td>
<td>0.003</td>
</tr>
</tbody>
</table>

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures

Eye contact

Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye. If eye irritation persists: Get medical advice/attention.

Skin contact

Rinse with water. Get medical attention if irritation develops and persists.

Inhalation

If breathing is affected, remove victim to fresh air and consult a physician.

Ingestion

Consult a physician if discomfort occurs. Do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed

Symptoms  See Section 11 for symptom information.

Indication of any immediate medical attention and special treatment needed

Note to physicians  Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing agents appropriate for surrounding fire.

Unsuitable extinguishing media  No information available.
**Specific hazards arising from the chemical**
No information available.

**Explosion data**
- Sensitivity to Mechanical Impact: None.
- Sensitivity to Static Discharge: None.

**Protective equipment and precautions for firefighters**
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Cool containers with flooding quantities of water until well after fire is out.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions**
Use personal protection recommended in Section 8. Ensure adequate ventilation, especially in confined areas. Avoid contact with eyes.

**For emergency responders**
Isolate area. Keep unnecessary personnel away.

**Environmental precautions**
Prevent entry into waterways, sewers, basements or confined areas. See Section 12 for additional ecological information.

**Methods and material for containment and cleaning up**

**Methods for containment**
Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up**
Collect spillage. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal. Following product recovery, flush area with water.

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Advice on safe handling**
Use personal protection recommended in Section 8. Avoid contact with eyes. Wash thoroughly after handling. Handle in accordance with good industrial hygiene and safety practice.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions**
Keep tightly closed in a dry and cool place. Do not contaminate water, food or feed. Keep from freezing. Protect from direct sunlight.

**Incompatible materials**
None known based on information supplied.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

**Exposure Guidelines**
No special protection or precautions have been identified for using this product under directed consumer use conditions. The following recommendations are given for production facilities and for other conditions and situations where there is increased potential for accidental, large-scale or prolonged exposure.

**Appropriate engineering controls**
Eywash stations. Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**
Avoid contact with eyes. Safety glasses when the possibility of splashing exists.

**Skin and body protection**
For prolonged and frequent use of this product rubber gloves are recommended.

**Respiratory protection**
No protective equipment is needed under normal use conditions.

**General Hygiene Considerations**
Wash face, hands and any exposed skin thoroughly after handling. Wash contaminated clothing and shoes before reuse. Do not eat, drink or smoke when using this product.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>Aqueous solution</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>Colorless</td>
<td>Odorless</td>
<td>No information available</td>
</tr>
<tr>
<td>ODOR</td>
<td>Odor threshold</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>2.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flammability Limit in Air</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper flammability limit</td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower flammability limit</td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapor density</td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.0 g/cc</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>Soluble in water</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Partition coefficient | No information available
Autoignition temperature | No information available
Decomposition temperature | No information available
Kinematic viscosity | No information available
Dynamic viscosity | No information available
Explosive properties | No information available
Oxidizing properties | No information available
VOC Content (%) | 0.00%

10. STABILITY AND REACTIVITY

Reactivity
No data available

Chemical stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Conditions to avoid
None known.

Incompatible materials
None known based on information supplied.

Hazardous Decomposition Products
None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

| Inhalation | None under normal use conditions. |
| Eye contact | May cause slight irritation. |
| Skin Contact | Prolonged contact may cause slight irritation. |
| Ingestion | Not an expected route of exposure. |

Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50
--- | --- | --- | ---
Citric acid 77-92-9 | = 3000 mg/kg (Rat) | = 3 g/kg (Rat) | - |

Information on toxicological effects

Symptoms
No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization
No information available.

Germ cell mutagenicity
No information available.

Carcinogenicity
This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Reproductive toxicity
No information available.

STOT - single exposure
No information available.

STOT - repeated exposure
No information available.

Aspiration hazard
No information available.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity
0.003% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document

Oral LD50
61,907.00 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity
0.003% of the mixture consists of components(s) of unknown hazards to the aquatic environment

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citric acid 77-92-9</td>
<td>-</td>
<td>1516: 96 h Lepomis macrochirus mg/L LC50 static</td>
<td>120: 72 h Daphnia magna mg/L EC50</td>
</tr>
</tbody>
</table>

Persistence and degradability

Ionic silver is degraded into inert elemental silver or insoluble silver complexes in the environment.

Bioaccumulation
No information available.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Partition coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citric acid - 77-92-9</td>
<td>-1.72</td>
</tr>
</tbody>
</table>

Mobility
Soluble in water.

Other adverse effects
No information available.
13. DISPOSAL CONSIDERATIONS

Waste treatment methods
Disposal of wastes
Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging
Dispose of in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION

DOT
Not regulated

15. REGULATORY INFORMATION

International Inventories
TSCA
Complies

DSL/NDSL
No information available

EINECS/ELINCS
No information available

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

US Federal Regulations
SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories
Acute health hazard
No

Chronic Health Hazard
No

Fire hazard
No

Sudden release of pressure hazard
No

Reactive Hazard
No

CWA (Clean Water Act)
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations
California Proposition 65
This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations
This product does not contain any substances regulated by state right-to-know regulations

U.S. EPA Label Information
EPA Pesticide Registration Number 72977-5-63679

16. OTHER INFORMATION

NFPA
Health hazards 0 Flammability 0 Instability 0 Physical and Chemical Properties None

HMIS
Health hazards 0 Flammability 0 Physical hazards 0 Personal protection None

Prepared By
Technical Department

Issue Date
21-Apr-2015

Revision Date
06-Jun-2016

Version
2

Revision Note
New information on raw ingredient has become available.

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The health hazards given on this SDS apply to this product in its concentrated form (as supplied) and may differ significantly at use dilution. The signs and symptoms of exposure apply only to negligence in handling or misuse of the concentrated product and not to the routine exposure of the diluted product under conditions of ordinary use.

End of Safety Data Sheet