Material Safety Data Sheet

Section 1 – Product & Company Identification
Product Name: Arrow Sanitizer – Product No. 150
Product Class: Quaternary Ammonium Chloride Compound
Product Use: Disinfectant/Sanitizer Liquid
EPA Reg. Number: 1839-86-5747
US D.O.T. Regulated: Yes (See Section 14 – Transportation Information)
Manufacturer: Arrow Chemical Products, Inc.
2067 Ste. Anne
Detroit, MI 48216
Telephone: 313-237-0277
Numbers: 24 hr. Emergency Assistance: Infotrac 1-800-535-5053

Section 2 – Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>CAS #</th>
<th>% by Weight</th>
<th>Exposure Limits</th>
<th>LC50/LD50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>&lt;1%</td>
<td>ACGIH TWA – OSHA PEL:</td>
<td>See Section 11</td>
</tr>
<tr>
<td>Alkyl Dimethyl Ammonium Chloride</td>
<td>85409-23-0</td>
<td>&lt;6%</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
<tr>
<td>Alkyldimethyl (ethylbenzyl) ammonium chloride (C12-18)</td>
<td>68391-01-5</td>
<td>&lt;6%</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
</tbody>
</table>

Section 3 – Hazards Identification

Emergency Overview: DANGER, CORROSIVE, COMBUSTIBLE

Potential Health Effects:
Skin: May be corrosive to skin. This product may be harmful if it is absorbed through the skin.
Eyes: Maybe corrosive to eyes.
Inhalation: Causes respiratory tract irritation.
Ingestion: May be harmful or fatal if swallowed.
Chronic: None known.

Section 4 – First Aid Measures

Eyes: Immediately flush eyes with water for at least 15 minutes, while holding eyelids open. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Seek medical attention at once.
Skin/Clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 10-15 minutes. Call a poison control center or doctor for treatment advice.
Inhalation: If symptoms are experienced, move victim to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
Ingestion: If ingestion of a large amount does occur, seek medical attention. Do NOT induce vomiting.

Section 5 – Fire Fighting Measures

Flash Point: 123° F. PMCC
Extinguishing Media: Water or suitable material for primary source of fire.

Section 6 – Accidental Release Measures

Spill and Leak Procedures
Emergency Action: Isolate spill or leak area immediately. Keep unauthorized personnel away. Stay upwind. Keep out of low areas where vapors may accumulate. Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area).
Spill Cleanup: Absorb spilled material and sweep up.

Section 7 – Handling & Storage

Handling Procedures: Avoid contact with skin and eyes. Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities. Wash thoroughly after work using soap and water.
Storage Procedures: Store in a dry, well-ventilated place no lower in temperature than 50°F or higher than 120°F.

Section 8 – Exposure Controls/Personal Protection

Personal Protective Equipment:
Eyes/Face: Safety goggles or face shield recommended if splashing is possible.
Skin: Impervious gloves (rubber or neoprene) recommended.
Respiratory: Use in well ventilated areas.
The following ingredients have established exposure guidelines:

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>EXPOSURE GUIDELINE</th>
<th>GUIDELINE VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>See Section 2 (Component: Ethanol)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All TWAs are for an 8-hour period and all STELs are for 15 minutes unless specifically noted as being for another time period.

Section 9 – Physical & Chemical Properties

Specific Gravity: 1.008
Percent Volatiles: 99.0
VOC Content: <1%
Evaporation Rate: Estimated slower than ethyl ether.
PH: 6.0 – 7.0
Appearance and Odor: Clear liquid, virtually odorless
Viscosity: 50 cps @ 25°C
Section 10: Stability & Reactivity
Chemical Stability: Stable.
Conditions to Avoid: Keep away from heat and strong oxidizing agents.
Incompatibilities: Strong oxidizing agents, reducing agents.
Hazardous Decomposition: None.
Hazardous Polymerization: Will not occur.

Section 11 – Toxicological Information
Carcinogenicity: No Carcinogenicity data available for this product.
Acute Oral LD50: Not available
Acute Dermal LD50: Not available

CHEMICAL INGREDIENTS LISTED AS POTENTIAL OR KNOWN CARCINOGENS

No ingredients listed in this section.

Section 12 – Ecological Information
Ecotoxicity: This pesticide is toxic to fish. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of national pollutant discharge elimination system (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewage systems without previously notifying the local sewage treatment plant authority. For Guidance contact your state water board or regional office of the EPA.
Environmental Fate: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide is a violation of federal law.

Section 13 – Disposal Considerations

Disposal Instructions: This substance, when discarded or disposed of, is a characteristic hazardous waste according to Federal regulation (40 CFR 261) and is assigned the EPA Hazardous Waste Number of D001. The discarding or disposal of this material must be done at a properly permitted facility in accordance with the regulations of 40 CFR 262, 263, 264, and 266. Additionally, the discarding or disposal of this material may be further regulated by state, regional, or local regulations. Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate.
The transportation, storage, treatment and disposal of this waste material must be conducted in compliance with all applicable Federal, state, and local regulations.

Section 14 – Transportation Information
DOT Hazard Class: 5 – Corrosive Liquid

Section 15 – Regulatory Information
TSCA Status
All ingredients are listed on the TSCA Inventory of Chemical Substances.
Other Chemical Inventories
All components of this product are listed on the following inventories: Canada (DSL), European Union, China, Korean and Philippines. One or more ingredients are not listed on the following inventories: Australia and Japan.

CERCLA/SARA
SARA Title III, Sections 311/312 – This act requires reporting under the Community Right-to-Know provisions due to the inclusion of the following components of this material in one or more of the five hazard categories listed in the 40 CFR 370: Classification of this product: NO
SARA Title 313 – This act requires submission of annual reports of releases of the following components of this material if the threshold reporting quantities, as listed in 40 CFR 372, are met or exceeded: NO
CHEMICAL NAME: Ethanol
CAS# 64-17-5
US CERCLA Hazardous Substances: Reportable quantity: 100 LBS.

Reportable Quantities/Threshold Planning Quantities: CERCLA requires notification of the National Response Center (Telephone 1-800-424-8802) in the event of a release of quantities of the following hazardous materials contained in this product, if the release is equal to or greater than the Reportable Quantities (RQ). SARA 302/304 requires emergency planning, including agency notification, for possible release of the following components of this material, based upon the Threshold Planning Quantities (TPQs) and/or release of Reportable Quantities.

CHEMICAL NAME REPORTABLE QUANTITY (RQ) THRESHOLD PLANNING QUANTITY (TPQ)

No ingredients listed in this section.

State & Provincial Right to Know & Selected Regulatory Lists
The following ingredients appear on various states right to know lists and/or California’s Proposition 65 List

CHEMICAL NAME STATE LIST Country(s) or region - Inventory List Y/N

Ethanol (trace amount) CA, CAP65R, NJ, PA Australia: Y, Canada (DSL): Y, Canada (NDSL): N,

WHMIS Classification: E. This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16 – Other Information

Hazard Ratings

<table>
<thead>
<tr>
<th>Hazard Rating Scale</th>
<th>HEALTH</th>
<th>FLAMMABILITY</th>
<th>REACTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Extreme</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>High</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Moderate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Slight</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>Insignificant</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The seller makes no warranty expressed or implied concerning the accuracy of any results to be obtained from the use of any information and no warranty expressed or implied concerning the use of the products. The buyer assumes all risks of the use and/or handling.