SAFETY DATA SHEET

Hand Sanitizer By: ARCO+ # 9606

1. PRODUCT AND COMPANY IDENTIFICATION

This SDS is used for the following Arcot products:

 Arcot #9606 Arcot Hand Sanitizer. This product adheres to the WHO-recommended formula which is also approved by FDA. It is registered with FDA under NDC 74189-9606-4.

Arcot #9607 Arcot 80% Alcohol For Hands & Other Surfaces

Arcot #6607 Max-Control 80% Alcohol For Hands

Manufacturer: Arcot Manufacturing Corporation, 2950 Mowery Road, Houston, Texas, U.S.A. 77045

Emergency Response Telephone: 1-800-633-8253 (Account #9390)

Arcot Customer Service Telephone: 713-413-9700

Website: www.ArcotManufacturing.com

Recommended Use: Hands & Other Surfaces

Restrictions on Use: Flammable

2. HAZARDS IDENTIFICATION

GHS Classification:

Flammable liquids: Category 2

Eve irritation: Category 2B (Mild Irritant)

GHS Label element

Hazard pictograms:



Signal Word: **DANGER**

Hazard statements:

Highly flammable liquid and vapor. H225:

H319: Causes serious eye irritation.

Precautionary statements:

Prevention:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. P210:

No smoking Keep container tightly closed. P233:

Ground/Bond container and receiving equipment (for large containers).

Use explosion-proof electrical/ventilating/lighting/equipment (for transferring large P241:

volumes).

Use only non-sparking tools (for large volumes). P242:

P243: Take precautionary measures against static discharge.

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P264: Wash skin thoroughly after handling (for handling large volumes).

P271: Use only outdoors or in a well-ventilated area (for handling large volumes).

P280: Wear protective gloves (for handling large volumes), eye protection and face protection.

Response:

P301 + P330 + P310 + P331: IF SWALLOWED: Rinse mouth. Immediately call a doctor. Do

NOT induce vomiting.

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses if present and easy to do. Continue rinsing.

P302 + P352: IF ON SKIN: Wash with plenty of water and soap.

P362 + P364: Take off contaminated clothing and wash it before reuse.

P304 + P340 + P312: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a doctor if you feel unwell.

P315: If any irritation persists, get immediate medical attention.

P370: In case of fire: Use alcohol-resistant foam, carbon dioxide (CO₂) or dry chemical to extinguish.

Storage:

P235: Keep cool.

P403: Store in a well-ventilated place.

P405: Store locked up.

P410: Protect from sunlight.

Store at temperatures not exceeding 86°F.

Disposal:

P501: Dispose of contents and container to an approved waste disposal plant in accordance with applicable local, state, federal and international regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture

Hazardous components:

Chemical Name	CAS#	Concentration (%)	
Ethyl Alcohol	64-17-5	80	
Hydrogen Peroxide	7722-84-1	< 1	

4. FIRST-AID MEASURES

<u>General advice</u>: Move out of dangerous area. Show this safety data sheet to the doctor in attendance. Do not leave the victim unattended.

<u>If inhaled</u>: Move to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Consult a physician after significant exposure.

In case of skin contact: If it irritates the skin, rinse well with water for at least 15 minutes and wash using soap. If on clothes, remove clothes.

<u>In case of eye contact</u>: Immediately flush eye(s) with plenty of water for at least 15 minutes. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.

<u>If swallowed</u>: Do not induce vomiting. Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide (CO2), dry chemical

Unsuitable extinguishing media: High volume water jet

<u>Specific hazards during firefighting</u>: Sensitive to static discharge. Vapors can travel to a source of ignition and flash back. Containers may explode in a fire. Do not allow run-off from firefighting to enter drains or water courses.

Hazardous combustion products: Toxic fumes/carbon oxides

Specific extinguishing methods: Use a water spray to cool containers from a distance.

<u>Further information</u>: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be stored separately in closed containments.

<u>Special protective equipment for firefighters</u>: Wear self-contained breathing apparatus and full protective clothing, including eye protection and boots. Material might react violently with water (spattering and misting) and react with metals to produce flammable hydrogen gas.

NFPA Flammable and Combustible Liquids Classification: Flammable Liquid Class IB

6. ACCIDENTAL RELEASE MEASURES

<u>Personal precautions, protective equipment and emergency procedures</u>: Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

<u>Environmental precautions</u>: Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up: Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/national regulations (see section 13). Clean surfaces thoroughly with water to remove residual contamination.

7. HANDLING AND STORAGE

Advice on safe handling (of large volumes): Use adequate ventilation and grounding. Wash thoroughly after using. Keep container closed when not in use. Keep away from sources of ignition. No smoking. Take measure to prevent the buildup of electrostatic charge.

Conditions for safe storage: Store in tightly closed, original containers in a cool, dry, well ventilated area. Store between 59-86°F for product stability. Do not store with strong oxidizing agents, strong acids, peroxides, aldehydes, halogens, ammonia, acid anhydrides or alkali metals.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure controls: Ventilation and appropriate grounding of containers.

Components with workplace control parameters:

Cas-No.	Component	Control Parameters / Permissible concentration	Basis	
64-17-5	Ethyl Alcohol	1000 ppm 1880 mg/m ³	ACGIH STEL	
		1000 ppm 1900 mg/m³	NIOSH REL	
		1000 ppm 1900 mg/m³	OSHA PEL	
	3300 ppm	OSHA IDLH		
7722-84-1	Hydrogen Peroxide	1 ppm 1.4 mg/m³	OSHA PEL	
	1 ppm	ACGIH TWA		
		1 ppm 1.4 mg/m³	NIOSH TWA	

Personal protective equipment:

Respiratory protection: No personal respiratory protective equipment normally required. Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.

Hand protection: For handling large volumes, the suitability for a specific workplace glove should be discussed with the producers of the protective gloves.

Eye protection: Wear chemical safety glasses or goggles if eye contact is possible. Use face shield if splashing is likely to occur.

Skin and body protection: Choose body protection according to the amount and concentration of the dangerous substance at the work place. When needed, wear impervious clothing, nitrile or rubber gloves, and apron or lab coat.

Hygiene measures: When using, do not eat, drink or smoke. Wash hands before breaks and at the end of workday. With large volumes or when eye contact is possible, provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

liquid

Color

colorless, clear

Odor

alcohol-like

Odor Threshold

N/A

рΗ

No data available

Freezing Point/Melting Point

approx. -59°C (-75°F)

Boiling Point Range

78-100°C (172-212°F)

Flash point

approx. 20°C (68°F)

Evaporation rate (n-Butyl Acetate = 1) No data available Flammability (solid, gas)

Burning rate

Flammable

Upper explosion limit

No data available 19% for ethyl alcohol

Lower explosion limit

3.3% for ethyl alcohol

Vapor pressure

44.6 mmHg @20°C (68°F) for ethyl alcohol

Relative vapor density (AIR=1)

No data available

Relative density @20°C (68°F) (water = 1)

approx. 0.84

Density @20°C (68°F)

approx. 7 Lb./Gal.

Bulk density

No data available

Solubility

completely soluble in water

Partition coefficient (n-octanol/water):

No data available

Auto-ignition temperature

>363°C (>685°F)

Thermal decomposition

No data available

Viscosity

No data available (alcohol thin)

10. STABILITY AND REACTIVITY

Reactivity: No dangerous reaction known under conditions of normal use.

Chemical stability: Stable under normal conditions. Possibility of hazardous reactions: Flammable

Conditions to avoid: Heat, flame and sparks.

Incompatible materials: Alkali metals, ammonia, oxidizing agents, peroxides

Hazardous decomposition products: Carbon oxides

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Skin:

Not Available

Eyes:

Not Available

Respiratory: Ingestion:

LC50 Inhalation: rat, 10h, 20000ppm LD50 Oral: rat, 7060 mg/Kg

Carcinogenicity

Components: 61-17-5

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IARC	No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH	A3: Confirmed animal carcinogen with unknown relevance to humans
NTP	No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Signs & Symptoms of Exposure

Skin:

Possible irritation, redness and/or itchiness with sensitive skin

Eyes:

Irritation, redness, watering eyes, itchiness

Respiratory:

Irritation, coughing, wheezing, dizziness, drowsiness

Ingestion:

Irritation, nausea, vomiting, diarrhea, dizziness, drowsiness

Chronic Toxicity:

Ingestion may cause blindness

Teratogenicity:

Not Available

Mutagenicity:

Not Available

Embryo Toxicity:

Pre- and Post-implant mortality

Specific Target Organ Toxicity: Not Available **Reproductive Toxicity:**

Not Available

Respiratory/Skin Sensitization: Not Available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ethyl Alcohol:

Aquatic Vertebrate:

LC50 (96 hours): 13,000 mg/L Oncorhynchus mykiss (Rainbow Trout)

Aquatic Invertebrate:

Not Available

Terrestrial:

Not Available

Persistence and Degradability: Not Available

Bioaccumulative Potential:

Will not accumulate

Mobility in Soil:

Not Available

PBT and vPvB Assessment:

Not Available

Other Adverse Effects:

Not Available

13. DISPOSAL CONSIDERATIONS

User should review their operations in terms of the applicable federal/national **Waste Product or Residues** or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product or residue. Dispose of in accordance with all applicable local, state and federal regulations.

Empty remaining contents. Dispose of as unused product. Do not burn or use a cutting **Product Containers** torch on the empty drum. Dispose of in accordance with all applicable local, state and federal regulations.

14. TRANSPORT INFORMATION

UN1993, Flammable liquids, n.o.s. (contains Ethanol solutions), 3, PGII. Do not ship via air.

Not considered to be a marine pollutant.

15. REGULATORY INFORMATION

TSCA Inventory Status:

All ingredients are listed on the TSCA inventory. All ingredients are listed on the DSCL inventory.

DSCL (EEC): **California Proposition 65:**

Listed: Ethyl Alcohol

SARA 302:

Not Listed

SARA 304:

Not Listed

SARA 311:

Fire Hazard, Acute Health Hazard, Chronic Health Hazard Fire Hazard, Acute Health Hazard, Chronic Health Hazard

SARA 312: SARA 313:

Listed: Ethyl Alcohol

OSHA Hazards:

Flammable liquid. Moderate skin and eye irritant.

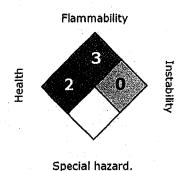
WHMIS Classification:

B-2: Flammable liquid with a flash point lower than 37.8°C (100°F)

16. OTHER INFORMATION

NFPA:

HMIS III:



HEALTH	2
FLAMMABILITY	3
PHYSICALHAZARD	0

0 = not significant, 1 = Slight,

2 = Moderate, 3 = High

4 = Extreme, * = Chronic

HMIS & NFPA ratings involve data interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this SDS must be considered.

Key or legend to abbreviations and acronyms used in the safety data sheet:

ACGIH American Conference of Government Industrial Hygienists

AICS Australia, Inventory of Chemical Substances

DSL Canada, Domestic Substances List

NDSL Canada, Non-Domestic Substances List

CNS Central Nervous System CAS **Chemical Abstract Service**

CEIL Ceiling

Effective Concentration EC50 EC50 **Effective Concentration 50%**

EGEST EOSCA Generic Exposure Scenario Tool

European Oilfield Specialty Chemicals Association EOSCA European Inventory of Existing Chemical Substances EINECS

MAK **Germany Maximum Concentration Values**

GHS **Globally Harmonized System** Greater Than or Equal To >= **IC50 Inhibition Concentration 50%**

IARC International Agency for Research on Cancer Immediately Dangerous to Life or Health IDLH

Inventory of Existing Chemical Substances in China **IECSC**

Japan, Inventory of Existing and New Chemical Substances **ENCS**

KECI Korea, Existing Chemical Inventory

<= Less Than or Equal To LC50 **Lethal Concentration 50%**

Lethal Dose 50% LD50

Lowest Observed Adverse Effect Level LOAEL **NFPA National Fire Protection Agency**

NIOSH National Institute for Occupational Safety & Health

NTP **National Toxicology Program**

New Zealand Inventory of Chemicals NZloC No Observable Adverse Effect Level NOAEL NOEC No Observed Effect Concentration

Occupational Safety & Health Administration **OSHA**

PEL Permissible Exposure Limit PICCS Philippines Inventory of Commercial Chemical Substances

PRNT Presumed Not Toxic

REL Recommended Exposure Limit

RCRA Resource Conservation Recovery Act

STEL Short-term Exposure Limit

SARA Superfund Amendments and Reauthorization Act.

TLV Threshold Limit Value over 8 hours of work
TWA Time Weighted Average over 8 hours of work

TSCA Toxic Substance Control Act

UVCB Unknown or Variable Composition, Complex Reaction Products, and Biological Materials

WEEL Workplace Environmental Exposure Levels

WHMIS Workplace Hazardous Materials Information System

DISCLAIMER: The information contained herein is based upon data obtained from sources believed to be reliable and reflects our best professional judgment. Since it is impossible to anticipate all of the conditions under which our products may be used, we do not guarantee that the recommendations will be adequate for all individuals and situations. Each user of this product should determine the suitability of the product for his or her particular purpose and should comply with all federal, state and local regulations. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. We shall not be held liable for any damage resulting from handling or from contact with the above product or from improper use of our products. We do not provide any warranties, expressed or implied, and do not assume any responsibility for the accuracy or completeness of the data contained herein. This information is offered for your information, consideration, and investigation. You should satisfy yourself that you have all current data relevant to your particular use. We update SDS and labels on a regular basis. Please do not hesitate to contact us for current information.

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