

MATERIAL SAFETY DATA SHEET

MANUFACTURER: K & K Chemical Co.
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PRODUCT: SANA-CLEAN™ #1
PART NUMBER(S): K-491

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SECTION I - GENERAL

Chemical Name & Synonym	Not Applicable
Trade Name & Synonyms	SANA-CLEAN™ #1
DOT Basic Description	Hydrochloric acid solution, 8, UN1789, II
Chemical Family	Aqueous solution
Formula	Trade Secret

SECTION II - HAZARDOUS INGREDIENTS

Hydrochloric acid	CAS No.	7647-01-0
Poly(ethylene glycol) 4-nonylphenyl ether	CAS No.	127087-87-0

SECTION III - PHYSICAL AND CHEMICAL DATA

Boiling Point (°C)	Not determined
Vapor Pressure (mm Hg @ 20°C)	Not applicable
Vapor Density (Air = 1)	Not determined
Specific Gravity (H ₂ O = 1)	1.048
% Volatile by Volume	Not determined
Evaporation Rate (H ₂ O = 1)	Not determined
Solubility in Water	Miscible
Appearance and Odor	Clear red fluid with sassafras odor

SECTION IV - FIRE AND EXPLOSION

HAZARD DATA

Flammable Limits (%)	
- LEL	Not applicable
- UEL	Not applicable
Flash Point (Method Used)	Not applicable
Extinguishing Media	Non-combustible. Use agents as appropriate for materials in surrounding fire.
Special Fire Fighting Procedures	None
Unusual Fire & Explosion Hazards	Will liberate flammable hydrogen gas on contact with many metals.

SECTION V - HEALTH HAZARD DATA

Route of Entry	Eye contact, skin contact, ingestion
Carcinogenic Assessment	Not listed
Threshold Limit Value	Not determined
Effects of Overexposure	Corrosive material. Severe irritant to all body tissues. Prolonged or repeated contact may damage or destroy body tissues. Eye contact can cause irritation, severe burns and permanent damage including blindness. Repeated or prolonged skin contact can cause irritation, dermatitis and burning of the skin. Ingestion can cause severe irritation or burns of the mouth, esophagus and stomach. Nausea, pain and vomiting may occur. Ulceration, kidney inflammation, shock and unconsciousness may occur.
Emergency & First Aid Procedures	Eye contact: Flush with water for 15 minutes. Get medical attention. Skin contact: Flush affected area with large quantities of water. If irritation persists, get medical attention. Ingestion: DO NOT INDUCE VOMITING. Drink large amounts of water, followed by egg whites or liquid antacid. Get immediate medical attention.

SECTION VI - REACTIVITY DATA

Stability	Stable
Incompatibility (Materials to Avoid)	Bases and metals
Hazardous Decomposition Products	None
Hazardous Polymerization	Will not occur

SECTION VII - SPILL OR LEAK PROCEDURE

Steps To Be Taken In Case Material Is Released Or Spilled	Neutralize with baking soda. Wash away or mop up with large volumes of water
Waste Disposal Method	Dispose of in accordance with all local, state, and federal regulations. Rinse empty container 3 times before discarding in an authorized local, state or federal landfill.

SECTION VIII - SPECIAL PROTECTION INFORMATION

Respiratory Protection	Not normally needed at ambient conditions.
Ventilation	Special ventilation is not normally needed.
Protective Gloves	Latex
Eye Protection	Safety glasses or goggles recommended.
Other Protective Equipment	None.

SECTION IX - SPECIAL PRECAUTIONS

Precautions To Be Taken In Handling And Storing	Store in original shipping containers. Keep closed when not in use. Do not store near alkalis or other reactive materials. Shelf life is 1 year. Protect from extreme heat or cold.
Other Precautions	Keep out of reach of children. Read & follow label instructions.
DOT Classification	Corrosive liquid
DOT Basic Description	Hydrochloric acid, solution, 8, UN1789, II