SAFETY DATA SHEET

Product Name : 154L ***Date Issued : May 2, 2024***

SECTION 1 : PRODUCT AND COMPANY IDENTIFICATION

Product Name: 154L
Formula : Multi-component mixture
Chemical Synonym / C# : c154
Chemical Family: Strong Acid

Supplier : Americhem International, 412 East 6th Avenue, Altoona, Pa. 16602
Information Telephone : 800-262-4360 **Emergency Telephone :** 607-529-3218

SECTION 2 : HAZARD IDENTIFICATION

Form : Liquid **Color :** Clear, red
Emergency Overview : Read the entire SDS for a more thorough evaluation of the hazards. Strong irritating odor. HEALTH HAZARD : DANGER! CAUSES EYE, SKIN, AND RESPIRATORY TRACT BURNS! Liquid contact to eyes and skin will cause burning, strong irritation, and tissue damage. May cause blindness or be fatal with skin contact or ingestion. Inhalation of vapor may cause coughing, choking, and result in damage to mucous membranes and other pulmonary effects.
OSHA Hazard Communication Standard : This product has been evaluated and classified as defined by OSHA Hazard Communication Standard, 29CFR 1910.1200.
GHS Classification :

Corrosive to Metals (category 1)
Acute toxicity (oral category 4)
Skin corrosion/irritation (category 1)
Serious eye damage/eye irritation (category 1)
Specific Target Organ Toxicity, Single Exposure (category 3 respiratory tract irritation)

Signal Word : Danger

GHS Hazard Pictograms :  Corrosion,  Exclamation Mark

Hazard Statements :

H290 May be corrosive to metals
H302 Harmful if swallowed
H314 Causes severe skin burns and eye damage
H335 May cause respiratory irritation

Precautionary Statements :

P280 Wear protective gloves/protective clothing/eye protection/face protection.
P270 Do not eat, drink or smoke when using this product.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P271 Use only outdoors or in a well-ventilated area.
P264 Wash skin thoroughly after handling.
P234. Keep only in original container
P233 Keep container tightly closed.
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P304 + P340 IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.
P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

Precautionary Statements *continued* :

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

P363 Wash contaminated clothing before reuse.

P390 Absorb spillage to prevent material damage.

P403 Store in a well-ventilated place.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards which do not result in classification :

None known. See Section 11 for Potential Health Hazards

SECTION 3 : COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredient(s)	CAS #	% (w/w)
Hydrogen Chloride	7647-01-0	20 - 30
Citric Acid	77-92-9	5 - 10

Unlisted components are considered non-hazardous as per 29CFR1910.1200g2C. See section 15 for specific state right-to-know information if applicable.

SECTION 4 : FIRST AID MEASURES

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.
Skin Contact: Take off immediately all contaminated clothing. Wash off IMMEDIATELY with plenty of water for at least 15-20 minutes. Get medical attention IMMEDIATELY. Call a physician or poison control center immediately.
Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a physician or poison control center immediately.
Ingestion: Call a physician or poison control center immediately. Rinse mouth thoroughly. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Notes to physician : Contact with this material will cause burns to the skin, eyes and mucous membranes. Provide general supportive measures and treat symptomatically. Symptoms may be delayed.

SECTION 5 : FIRE FIGHTING MEASURES

Extinguishing Media: Dry chemical. Foam. Carbon dioxide (CO2).
Fire Fighting Procedures: Self-contained breathing apparatus and full protective clothing must be worn in case of fire. In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials.
Unusual Fire and Explosion Hazards: During fire, gases hazardous to health may be formed. No unusual fire or explosion hazards noted.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

Personal precautions : Immediately evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Wear appropriate personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS. This product should not be released into the environment.

Steps to be taken in case material is released or spilled:
Small Spill: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.
Large Spill: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Deactivation materials include lime, limestone, sodium carbonate (soda ash), sodium bicarbonate, and dilute sodium hydroxide. Prevent entry into waterways, sewer, basements or confined areas.
Never return spills in original containers for re-use. For waste disposal, see Section 13 of the SDS.

SECTION 7 : HANDLING AND STORAGE

Handling: Wear appropriate personal protective equipment. Do not get in eyes, on skin, on clothing. Do not breathe mist or vapor. Observe good industrial hygiene practices. Do not empty into drains. Use caution when combining with water; DO NOT add water to acid, ALWAYS add acid to water while stirring to prevent release of heat, steam and fumes.
Storage Requirements: Store in a well-ventilated place. Store away from incompatible materials. Store in containers specially designed for this product and strength. Keep away from heat, sparks and open flame.

SECTION 8 : EXPOSURE CONTROLS / PERSONAL PROTECTION

Hazardous Ingredient	ACGIH TLV (mg/m3) TWA	ACGIH TLV (mg/m3) STEL
Hydrogen Chloride	-	7.5 ceiling
Citric Acid	-	-

Engineering measures :

Ventilation / Local Exhaust / Mechanical Recommendations: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station.

Personal protective equipment :

Respiratory Protection: When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

Skin Protection: Wear resistant gloves such as : neoprene, polyvinyl chloride. To prevent skin contact, wear impervious clothing and boots.

Personal protective equipment *continued* :

Eye Protection: Wear safety glasses with side shields (or goggles). Face-shield. Wear a full-face respirator, if needed.

Other Considerations: Do not get this material on clothing. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

Appearance / Odor: Clear red liquid, acidic odor.

Water Solubility: Complete
Specific Gravity: 1.12
Evaporation Rate(water=1): N/A
Vapor Density(air=1) : N/A
Flash Point : None
Flammable Limits: LEL = N/A **UEL =** N/A

pH (1%): < 2.0
Boiling Point (°F) : 212+
% Volatile: N/A
Vapor Pressure(mmHg): N/A
Flash Point Method Used: N/A

SECTION 10 : STABILITY AND REACTIVITY

Hazardous Decomposition Products: Hydrogen chloride gas.
Chemical Stability: Material is stable under normal conditions.
Conditions to Avoid: Contact with metal may release flammable hydrogen gas. Contact with incompatible materials. Do not mix with other chemicals.
Incompatibility with other Substances: Incompatible with bases. Amines. Acid anhydrides. Metals. Organic compounds. Sulfides.
Hazardous Polymerization: Hazardous polymerization does not occur.

SECTION 11 : TOXICOLOGICAL INFORMATION

Potential Health Hazards

General : Contact with this material will cause burns to the skin, eyes and mucous membranes. Permanent eye damage including blindness could result.
Inhalation Vapors and mist will irritate throat and respiratory system and cause coughing.
Skin contact Causes skin burns.
Eye contact Causes eye burns.
Ingestion Harmful if swallowed. Causes digestive tract burns. Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly the digestive tract.

Toxicological Data (as Hydrochloric Acid):
Acute toxicity Harmful if swallowed.
Acute Inhalation : LC50 (rat, 1 hour) = 3124 mg/l
Acute Oral toxicity : LD50 (rabbit) = 900 mg/kg
Skin corrosion/irritation : Causes severe skin burns and eye damage.
Serious eye damage/eyeirritation: Causes serious eye damage.
Respiratory or skin sensitization : No data available.
Germ cell mutagenicity : No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Reproductive toxicity : This product is not expected to cause reproductive or developmental effects.

Toxicological Data (as Hydrochloric Acid) ***continued*** **:**
Specific target organ toxicity -
single exposure : May cause respiratory irritation.
Specific target organ toxicity - repeated exposure : No data available.
Aspiration hazard : Not available.
Chronic effects : Prolonged inhalation may be harmful.

Toxicological Data (as citric acid):
Acute Toxicity/Effects
Oral LD50 mouse = 5.400 mg/kg Method: OECD Test Guideline 401
Oral LD50 rat = 11.700 mg/kg Method: OECD Test Guideline 401
Dermal LD50 rat = > 2.000 mg/kg
LD50 rat (Application Route: i.p.) = 725 mg/kg
LD50 mouse (Application Route: i.p.) = 940 mg/kg
Skin corrosion/irritation : Species: rabbit. Result: No skin irritation. May cause skin irritation in susceptible persons.
Serious eye damage/eye irritation : Species: rabbit. Result: Irritating to eyes.
Respiratory or skin sensitization : Maximisation Test. Species: guinea pig. Result: Does not cause skin sensitization. Method: OECD Test Guideline 406
Germ cell mutagenicity : In vivo tests did not show mutagenic effects
Carcinogenicity: Did not show carcinogenic or teratogenic effects in animal experiments.
Reproductive toxicity : No toxicity to reproduction
Specific target organ toxicity - single exposure : no data
Specific target organ toxicity - repeated exposure : no data
Aspiration hazard : No data
Chronic effects : Target Organ Systemic Toxicant - Repeated exposure

SECTION 12 : ECOLOGICAL INFORMATION

Ecotoxicological Information : No data found on blended product. Avoid contaminating waterways.

Ecotoxicological Information (as Hydrochloric Acid) :
Aquatic : LC50 Fish **(**Western mosquitofish (Gambusia affinis), 96 hours) = 282 mg/l
Persistence and degradability : No data is available on the degradability of this product.
Bioaccumulative potential : No data available.
Mobility in soil : No data available.
Other adverse effects : No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

Ecotoxicological Information (as citric acid):
Toxicity :
Fish, LC50 = 440 mg/l. Exposure time: 48 h. Species: Leuciscus idus (Golden orfe) static test. Method: OECD Test Guideline 203
Crustacea, LC50 = 1.535 mg/l. Exposure time: 24 h. Species: Daphnia magna (Water flea). static test
Algae = 425 mg/l. Exposure time: 168 h. Species: Scenedesmus quadricauda (Green algae). static test
Bacteria = > 10.000 mg/l. Exposure time: 16 h. Species: Pseudomonas putida

Ecotoxicological Information (as citric acid), *continued* :
Persistence and degradability :
97 %. Testing period: 28 d. Method: OECD Test Guideline 301B. Readily biodegradable.
100 %. Testing period: 19 d. Method: OECD Test Guideline 301E. Readily biodegradable.
Biochemical Oxygen Demand (BOD) : 526 mg/g
Chemical Oxygen Demand (COD) : 728 mg/g
Bioaccumulative potential : The product is miscible in water and readily biodegradable in both water and soil. Accumulation is not expected.
Mobility in Soil : Results of PBT and vPvB assessment : This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).

SECTION 13 : DISPOSAL CONSIDERATIONS

Waste Disposal Method: Recycle, recovery and reuse of materials, where permitted, is encouraged as an alternate to disposal as a waste. Hazardous waste classification under federal regulations (40 CFR Part 261 et seq) is dependent upon whether a material is a RCRA listed hazardous waste or has any of the four RCRA hazardous waste characteristics. Refer to 40 CFR Part 261.33 to determine if a given material to be disposed of is a RCRA listed hazardous waste. RCRA Hazardous Waste Characteristics: There are four characteristics defined in 40 CFR Section 261.21-61.24: *Ignitability, Corrosivity, Reactivity, and Toxicity*. To determine Ignitability, see Section 9 of this SDS (flash point). For Corrosivity, see Sections 9 and 14 (pH and DOT corrosivity). For Reactivity, see Section 10 (incompatible materials). For Toxicity, see Section 2 (composition). Federal regulations are subject to change. State and local requirements, which may differ from or be more stringent than the federal regulations, may also apply to the classification of the material if it is to be disposed.
Is the unused product a RCRA hazardous waste (40CFR261.33) if discarded? No
If yes, the RCRA ID number is : N/A

SECTION 14 : TRANSPORTATION INFORMATION

Transportation Emergency Telephone Number: 3E 24 hour number : (866)302-6855*
*Please refer to c# referenced in section 1 of this sds.

UN Number / DOT Proper Shipping Name / DOT Hazard Class /Packing Group / DOT Label & other information: UN1789, HYDROCHLORIC ACID, SOLUTION,
8, PGII, (CORROSIVE, DETERGENT BLEND, ERG#157)

SECTION 15 : REGULATORY INFORMATION

US FEDERAL REGULATIONS :

TSCA (Toxic Substances Control Act) Status : TSCA (United States) The intentional ingredients of this product are listed.

CERCLA RQ - 40 CFR 302.4(a) :

Component	RQ (lbs)
Hydrochloric Acid	5000

Spills or releases resulting in the loss of any ingredient at or above its RQ requires immediate notification to the National Response Center (800) 424-8802 and to your Local Emergency Planning Committee.

SARA 302 Components - 40 CFR 355 Appendix A

Section 302 Component(s)	TPQ (lbs)	RQ (lbs)
Hydrochloric Acid (gas only)		

SARA 311/312 Classification - 40 CFR 370.2 :

(as Hydrochloric Acid) : Immediate hazard, Delayed hazard, Reactivity hazard

SARA 313 Components - 40 CFR 372.65:

Section 313 Component(s)	CAS #	%
Hydrochloric Acid	7647-01-0	20 - 30

INTERNATIONAL REGULATIONS :

Hydrochloric Acid is listed on the following inventories : Australian Inventory of Chemical Substances (AICS), Canada Domestic Substances List (DSL), Inventory of Existing Chemical Substances in China (IECSC), European Inventory of Existing Commercial Chemical Substances (EINECS), Japan Inventory of Existing and New Chemical Substances (ENCS), Korea Existing Chemicals List (ECL), New Zealand Inventory, Philippine Inventory of Chemicals and Chemical Substances (PICCS)

Citric acid (CAS#77-92-9) is listed or is in compliance with the following inventories: EINECS, AICS, DSL, ENCS, KECI, PICCS, IECSC, NZIoC. Canada WHMIS : Class E

STATE REGULATIONS :

California Safe Drinking Water Act (Prop. 65) Listing : This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

Other Regulations / Legislation which apply to this product:

Hydrochloric Acid (CAS 7647-01-0) is listed on the following inventories : Massachusetts RTK - Substance List, New Jersey Worker and Community Right-to-Know Act, Pennsylvania Worker and Community Right-to-Know Law, Rhode Island RTK

SECTION 16 : OTHER INFORMATION

NFPA Rating : HEALTH: 3 FLAMMABILITY: 0 REACTIVITY: 1
NFPA hazard degree designation 704: 4 = extreme, 3 = high, 2 = moderate, 1 = slight, 0 = none.

Revision Date : 2/3/2021

Information and data compiled to compose this SDS is correct to the best of our knowledge as of the printed date, and is offered solely for your consideration, investigation, and verification.