

SAFETY DATA SHEET

Cat# BN00895, Ascorbic Acid Colorimetric Assay Kit II (FRASC)

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Ascorbic Acid Colorimetric Assay Kit II (FRASC)

PRODUCT CODES: Cat# BN00895

MANUFACTURER: Assay Genie (brand of Reagent Genie Ltd.)

ADDRESS: G1 The Steelworks, Foley Street, Dublin 1

EMERGENCY PHONE: +353 1 8879802

SECTION 2: HAZARDS IDENTIFICATION

Component	Description	Volume	Safety Information
FRASC Buffer	Proprietary Buffer	25 ml	No hazards
Ascorbic Acid Probe	In 40 mM HCl	0.2 ml	See below
FeCl3 Solution	Liquid	1.0 ml	No hazards
Ascorbate Oxidase	Lyophilized	1 vial	No hazards
Ascorbic Acid Standard (20 µmol)	Liquid	1 vial	No hazards

HCl:

Emergency Overview

OSHA Hazards: Harmful by ingestion

GHS Classification: Acute toxicity, Oral (Category 4)

GHS Label elements, including precautionary statements

Pictogram:



Signal word: Warning

Hazard statement(s): H302 Harmful if swallowed.
H312 Harmful in contact with skin
H332 Harmful if inhaled

Precautionary statement(s): Wear protective gloves/protective clothing/eye protection/face protection.

IF ON SKIN: Wash with plenty of water

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

HMIS Classification

Health hazard: 4

Flammability: 0

Physical hazards: 0

NFPA Rating

Health Hazard: 4

Fire: 0

Reactivity Hazard: 0

Potential Health Effects

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.

Skin: May be harmful if absorbed through skin. May cause skin irritation.

Eyes: May cause eye irritation.

Ingestion: Harmful if swallowed.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	EC-No.	Molecular Weight	Chemical Formula
Hydrochloric acid	7647-01-0	--	36.5	HCl

SECTION 4: FIRST AID MEASURES

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact: Wash off with soap and plenty of water. Consult a physician.

In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

SAFETY DATA SHEET

Cat# BN00895, Ascorbic Acid Colorimetric Assay Kit II (FRASC)

If swallowed: DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable extinguishing media: For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

Special protective equipment for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

Hazardous combustion products: Hazardous decomposition products formed under fire conditions – see section 10.

Further information: Use water spray to cool unopened containers.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions: Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods for cleaning up: Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet brushing and place in container for disposal according to local regulations (see section 13). Do not flush with water.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place.

Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage temperature: -20 °C.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

HCl:

Component	CAS #	Value	Control Parameters	Basis
Hydrochloric acid	7647-01-0	C	2 ppm	USA. ACGIH Threshold Limit Values (TLV)
			Upper Respiratory Tract irritation. Not classifiable as a human carcinogen	
		C	5 ppm 7 mg/m3	USA. NIOSH Recommended Exposure Limits
		Often used in an aqueous solution.		
		C	5 ppm 7 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		The value in mg/m3 is approximate. Ceiling limit is to be determined from breathing-zone air samples.		
		C	5 ppm 7 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection

Tightly fitting safety goggles. Face shield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

SAFETY DATA SHEET

Cat# BN00895, Ascorbic Acid Colorimetric Assay Kit II (FRASC)

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	HCl
Appearance:	liquid
pH	No data available
Water Solubility:	No data available
Other Solubility:	No data available
Boiling Point (°C):	No data available
Melting Point (°C):	No data available
Flash Point (°C):	No data available
Ignition Temp. (°C):	No data available
Density:	No data available

SECTION 10: STABILITY AND REACTIVITY

Property	HCl
Chemical Stability:	Stable under recommended storage conditions
Conditions to Avoid:	No data available
Materials to Avoid:	No data available
Hazardous decomposition products:	No data available

SECTION 11: TOXICOLOGICAL INFORMATION

HCl:

Acute toxicity: no data available

Skin corrosion/irritation: Skin – rabbit – mild skin irritation.

Serious eye damage/eye irritation: Eyes – rabbit – severe eye irritation.

Respiratory or skin sensitization: no data available.

Germ cell mutagenicity: no data available

Carcinogenicity:

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Hydrochloric acid)

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component 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 component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: no data available

Teratogenicity: no data available

Specific target organ toxicity – single exposure (GHS): Inhalation – may cause respiratory irritation.

Specific target organ toxicity – repeated exposure (GHS): no data available

Potential Health Effects

Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.

Skin: Harmful if absorbed through skin. Causes skin irritation.

Eyes: Causes eye irritation.

Ingestion: Harmful if swallowed.

Signs and Symptoms of Exposure: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Additional information: no data available

SECTION 12: ECOLOGICAL INFORMATION

HCl:

Persistence and degradability: Biodegradability ☐ Result: 86% - readily biodegradable; Method: modified Sturm test

Ecotoxicity: Fish: Bluegill/Sunfish: 3.6 mg/L; 48Hr; Lethal (unspecified)

SAFETY DATA SHEET

Cat# BN00895, Ascorbic Acid Colorimetric Assay Kit II (FRASC)

Environmental: Will exhibit extensive evaporation from soil surfaces. Upon transport through the soil, hydrochloric acid will dissolve some of the soil materials (especially those with carbonate bases) and the acid will neutralize to some degree.

Bioaccumulative potential: Does not bioaccumulate

Mobility in soil: no data available

PBT and vPvB assessment: no data available

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. toxic to aquatic life.

SECTION 13: DISPOSAL CONSIDERATIONS

Product: Observe all federal, state, and local environmental regulations.

Contaminated packaging: Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

HCL<0.5% W/W:

DOT (US): Not dangerous goods.

IMDG: Not dangerous goods.

IATA: Not dangerous goods.

SECTION 15: REGULATORY INFORMATION

OSHA Hazards: HCl: Harmful by ingestion

SARA 302 Components: SARA 302: No chemical in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components: SARA 313: The following components are subject to reporting levels established by SARA Title III, Section 313: Hydrochloric acid CAS-No.7647-01-0 Revision Date 1993-04-24

SARA 311/312 Hazards: HCl: Acute Health Hazard

Massachusetts Right To Know Components: Hydrochloric acid CAS-No. 7647-01-0 Revision Date 1993-04-24

Pennsylvania Right To Know Components: Hydrochloric acid CAS-No. 7647-01-0 Revision Date 1993-04-24

New Jersey Right To Know Components: Hydrochloric acid CAS-No. 7647-01-0 Revision Date 1993-04-24

California Prop. 65 Components: This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16: OTHER INFORMATION:

OTHER INFORMATION:

PREPARATION INFORMATION:

DISCLAIMER:

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Assay Genie shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.