

## MATERIAL SAFETY DATA SHEET

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Issue Date:

### 1- Chemical Product Information and Company Identification.

**Product Name:** : Isopropyl Chloroacetate GC reference standard, AnStan<sup>®</sup>.  
**Synonym:** : Chloroacetic Acid Isopropyl Ester.  
**Product code:** : BS14419.  
**CAS Number:** : 105-48-6.  
**Company Name:** : Briti Scientific.  
**Company Address:** : Plot No:78/B/13, SY-79,Phase-VI, Jeedimetla,Hyderabad-500 055.  
Telangana, India.

### Section 2- Composition / Information on Ingredients.

CAS No.	Chemical Name	Mol. Formula
105-48-6.	Chloroacetic Acid Isopropyl Ester.	C <sub>5</sub> H <sub>9</sub> ClO <sub>2</sub> .

### Section 3- Hazards Identification.

#### Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids                      Category 3  
Acute oral toxicity                      Category 3  
Skin Corrosion/Irritation              Category 2  
Serious Eye Damage/Eye Irritation Category 2  
Specific target organ toxicity (single exposure) Category 3  
Target Organs - Respiratory system.

#### Label Elements

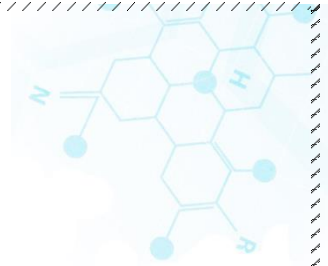
Signal Word

Danger

#### Hazard Statements

Flammable liquid and vapor  
Toxic if swallowed  
Causes skin irritation  
Causes serious eye irritation  
May cause respiratory irritation





## Precautionary Statements

### Prevention

- Wash face, hands and any exposed skin thoroughly after handling
- Do not eat, drink or smoke when using this product
- Wear protective gloves/protective clothing/eye protection/face protection
- Avoid breathing dust/fume/gas/mist/vapors/spray
- Use only outdoors or in a well-ventilated area
- Keep away from heat/sparks/open flames/hot surfaces. - No smoking
- Keep container tightly closed
- Ground/bond container and receiving equipment
- Use explosion-proof electrical/ventilating/lighting/equipment
- Use only non-sparking tools
- Take precautionary measures against static discharge
- Keep cool

### Inhalation

- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- Call a POISON CENTER or doctor/physician if you feel unwell

### Skin

- If skin irritation occurs: Get medical advice/attention
- IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
- Wash contaminated clothing before reuse

### Eyes

- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- If eye irritation persists: Get medical advice/attention

### Ingestion

- IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
- Rinse mouth

### Fire

- In case of fire: Use CO<sub>2</sub>, dry chemical, or foam for extinction

### Storage

- Store locked up
- Store in a well-ventilated place. Keep container tightly closed

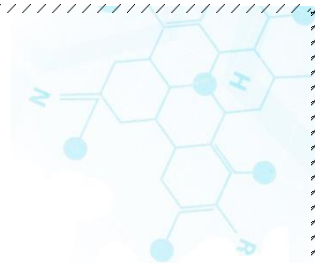
### Disposal

- Dispose of contents/container to an approved waste disposal plant

### Hazards not otherwise classified (HNOC)

- None identified





#### Section 4- First Aid Measures.

**Eye Contact:** Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes

**Skin Contact:** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Immediate medical attention is required.

**Inhalation:** Remove from exposure, lie down. Remove to fresh air. If not breathing, give artificial respiration. Immediate medical attention is required.

**Ingestion:** Call a physician immediately. Clean mouth with water.

**Most important symptoms and effects:** Difficulty in breathing. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting

**Notes to Physician:** Treat symptomatically

#### Section 5- Fire Fighting Measures.

**Suitable Extinguishing Media:** Carbon dioxide (CO<sub>2</sub>). Dry chemical. Chemical foam. Water mist may be used to cool closed containers.

**Unsuitable Extinguishing Media:** No information available

**Flash Point** 56 °C / 132.8 °F

**Method** - No information available

**Autoignition Temperature** No data available

**Explosion Limits**

**Upper** No data available

**Lower** No data available

**Sensitivity to Mechanical Impact** No information available

**Sensitivity to Static Discharge** No information available

**Specific Hazards Arising from the Chemical**

Combustible material. Flammable. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back

**Hazardous Combustion Products**

Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Hydrogen chloride gas.

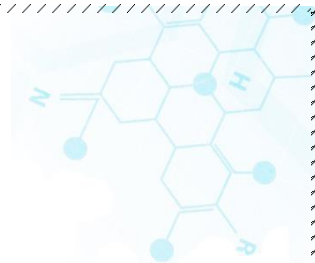
**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

#### NFPA

Health	Flammability	Instability	Physical hazards
3	2	0	N/A





## Section 6- Accidental Release Measures.

**Personal Precautions:** Remove all sources of ignition. Take precautionary measures against static discharges.

**Environmental Precautions:** See Section 12 for additional Ecological Information.

### **Methods for Containment and Clean Up:**

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

## Section 7- Handling and Storage.

**Handling:** Do not breathe mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Handle product only in closed system or provide appropriate exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Use only non-sparking tools. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges.

**Storage** Keep in a dry, cool and well-ventilated place. Refer product specification and/or product label for specific storage temperature requirement. Keep container tightly closed. Keep away from heat, sparks and flame. Keep container tightly closed in a dry and well-ventilated place.

## Section 8- Exposure Control/Personal Protection.

**Exposure Guidelines** This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Engineering Measures:** Ensure that eyewash stations and safety showers are close to the work station location. Ensure adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting/equipment.

### **Personal Protective Equipment**

**Eye/face Protection:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin and body protection:** Wear appropriate protective gloves and clothing to prevent skin exposure.

**Respiratory Protection:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

**Recommended Filter type:** Organic gases and vapours filter. Type A. Brown. conforming to EN14387.

### **Hygiene Measures**

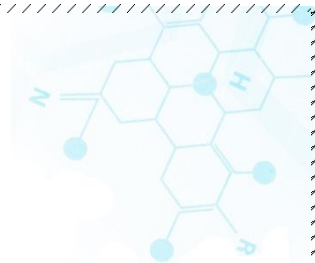
Handle in accordance with good industrial hygiene and safety practice.

## Section 9- Physical and Chemical Properties.

<b>Appearance</b>	Colorless to Almost colorless clear liquid.
<b>Odor</b>	No information available







<b>Odor Threshold</b>	No information available
<b>pH</b>	No information available
<b>Melting Point/Range</b>	-112 °C
<b>Boiling Point/Range</b>	150 °C.
<b>Flash Point</b>	56 °C / 132.8 °F
<b>Evaporation Rate</b>	No information available
<b>Flammability (solid,gas)</b>	Not applicable
<b>Flammability or explosive limits</b>	
Upper	No information available
Lower	No information available
<b>Vapor Pressure</b>	68 mmHg @ 20 °C
<b>Density</b>	1.096 g/ml.
<b>Solubility</b>	Soluble in chloroform.
<b>Partition coefficient; n-octanol/water</b>	No data available
<b>Autoignition Temperature</b>	No information available
<b>Decomposition Temperature</b>	No information available
<b>Viscosity</b>	0.46 mPa.s @ 20°C
<b>Molecular Formula</b>	C <sub>5</sub> H <sub>9</sub> ClO <sub>2</sub>
<b>Molecular Weight</b>	136.58 g/mol.

### Section 10- Stability and Reactivity.

**Reactive Hazard:** None known, based on information available

**Stability:** Stable under normal conditions

**Conditions to Avoid:** Keep away from open flames, hot surfaces and sources of ignition. Incompatible products.

**Incompatible Materials:** Strong oxidizing agents, Strong bases

**Hazardous Decomposition Products:** Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Hydrogen chloride gas

**Hazardous Polymerization:** No information available

**Hazardous Reactions:** None under normal processing.

### Section 11- Toxicological Information.

**Acute Toxicity**

**Product Information**

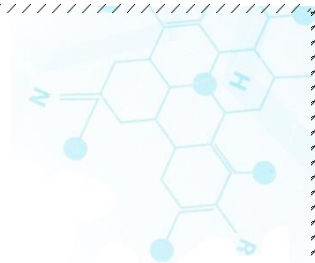
**Component Information**

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Isopropyl chloroacetate	Not listed	LD50 > 2000 mg/kg ( Rat )	LC50 = 4.8 mg/L ( Rat ) 4 h

**Toxicologically Synergistic Products**

No information available





**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Irritation** No information available

**Sensitization** No information available

**Carcinogenicity:** The table below indicates whether each agency has listed any ingredient as acarcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Isopropyl chloro acetate	105-48-6	Not listed	Not listed	Not listed	Not listed	Not listed

**Mutagenic Effects** No information available

**Reproductive Effects** No information available

**Developmental** No information available

**Teratogenicity** No information available

STOT - single exposure Respiratory system

STOT - repeated exposure None known

**Aspiration hazard** No information available

**Symptoms / effects, both acute and** Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting

**Endocrine Disruptor Information** No information available

**Other Adverse Effects** The toxicological properties have not been fully investigated.

## Section 12- Ecological Information.

**Ecotoxicity:** Do not empty into drains.

**Persistence and Degradability:** Soluble in water Persistence is unlikely based on information available

**Bioaccumulation/ Accumulation:** No information available.

**Mobility :** Will likely be mobile in the environment due to its water solubility

## Section 13- Disposal Considerations.

**Waste Disposal Methods:** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## Section 14- Transport Information.

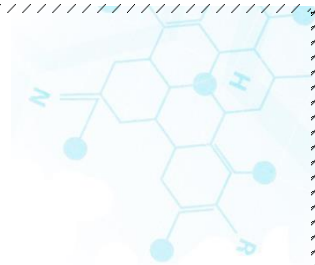
**DOT**

UN-No UN2947

Hazard Class 3

Packing Group III





**TDG**

UN-No UN2947  
Hazard Class 3  
Packing Group III

**IATA**

UN-No UN2947  
Proper Shipping Name ISOPROPYL CHLOROACETATE  
Hazard Class 3  
Packing Group III

**IMDG/IMO**

UN-No UN2947  
Proper Shipping Name ISOPROPYL CHLOROACETATE  
Hazard Class 3  
Packing Group III

**Section 15- Regulatory Information.**

**Legend:**

TSCA - Toxic Substances Control Act, (40 CFR Part 710)  
X - Listed  
'-' - Not Listed

**TSCA 12(b)** - Notices of Export Not applicable

**U.S. Federal Regulations**

SARA 313 Not applicable  
SARA 311/312 Hazard Categories See section 2 for more information  
CWA (Clean Water Act) Not applicable

**Clean Air Act** Not applicable

**OSHA** - Occupational Safety and  
Health Administration  
Not applicable

**CERCLA** Not applicable

**California Proposition 65** This product does not contain any Proposition 65 chemicals

**Section 16- Other Information.**

Briti Scientific provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

