

SDS : 2000-2

## 1. IDENTIFICATION

**Name of product:** Isopropyl alcohol (99%)

**Other means of identification:** AI2000-004, AI2000-019, AI2000-205.

**SDS number:** 2000-2

**Use of product:** Industrial solvent, cleaner and grease remover.

Please refer to Product label.

### Company Identification

HALL CHEM MFG. INC.

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Tel.: (450) 645-0296

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### EMERGENCY TELEPHONE NUMBER

**24-Hour Emergency Contact CANUTEC:** 613-996-6666

**Local Emergency Contact:** 613-996-6666

## 2. HAZARD IDENTIFICATION

### GHS Classification:

Flammable liquids: Category 2; Eye irritation: Category 2A;

Specific target organ toxicity - single exposure (Inhalation, Oral): Category 3 (Narcotic effects)

### GHS label elements:

Hazard pictograms:



Signal Word:

Danger

Hazard Statement(s):

### PHYSICAL HAZARDS:

H225 Highly flammable liquid and vapour.

### HEALTH HAZARDS:

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

### ENVIRONMENTAL HAZARDS:

Not classified as an environmental hazard under GHS criteria.

### Precautionary statements:

Prevention:

P102 Keep out of reach of children.

P103 Read label before use

P101 If medical advice is needed, have product container or label at hand.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P240 Ground and bond container and receiving equipment.

P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.

P242 Use non-sparking tools.

P243 Take action to prevent static discharges.

P261 Avoid breathing mist or vapours.  
 P264 Wash hands thoroughly after handling.  
 P271 Use only outdoors or in a well-ventilated area.  
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response**

P303 + P361 + P553 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
 P370 + P378 In case of fire: Use appropriate media to extinguish.  
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P337 + P313 If eye irritation persists: Get medical advice/ attention.  
 P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P312 Call a POISON CENTER/doctor if you feel unwell.

**Storage:**

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
 P235 Keep cool.  
 P405 Store locked up.

**Disposal:**

Dispose of contents/container in accordance with applicable regional, national and local laws and regulations.

**Other hazards which do not result in classification:**

Vapours are heavier than air. Vapours may travel across the ground and reach remote ignition sources causing a flashback fire danger.  
 Even with proper grounding and bonding, this material can still accumulate an electrostatic charge.  
 If sufficient charge is allowed to accumulate, electrostatic discharge and ignition of flammable air-vapour mixtures can occur.  
 Slightly irritating to respiratory system.

**3. COPMPOSITION/INFORMATION ON INGREDIENTS**

Substance:

Chemical name	% V/V	CASE #
isopropyl alcohol	99	67-63-0

**4.FIRST AID MESURE**

**General advice:**

In general no treatment is necessary, however, obtain medical advice.

**Inhalation:**

If inhaled, remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is difficult, give oxygen. Immediately call a poison center or doctor/physician.

**Skin contact:**

If on skin or hair, remove/take off immediately all contaminated clothing. Rinse skin with water/shower.  
 Wash contaminated clothing before reuse.

**Contact with eyes:**

Rinse immediately and cautiously with water, pulling the eyelids well away from the eye for several minutes.  
 Remove contact lenses, if present and easy to do. Continue rinsing. Ensure that folded skin of eyelids is thoroughly washed with water. Obtain medical attention if pain, blinking or redness persists.

**If swallowed:**

If swallowed, do not induce vomiting: transport to nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

**Most important symptoms and effects, both acute and delayed:**

If material enters lungs, signs and symptoms may include coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath, and/or fever. Eye irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blurred vision.

**Notes to physician:**

This product contains materials that may cause severe pneumonitis if aspirated. If ingestion has occurred less than two hours earlier, carry out careful gastric lavage; use endotracheal cuff if available, to prevent aspiration. Observe the patient for respiratory difficulty from aspiration pneumonitis. Give artificial resuscitation and appropriate chemotherapy of respiration is depressed.

## 5. FIRE FIGHTING MEASURES

**Extinguishing methods:**

**Suitable extinguishing media:**

Small fire: Use dry chemicals, CO<sub>2</sub>, alcohol foam or water spray.

Large fire: Use alcohol foam, water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, auto-ignition or explosion.

**Unsuitable extinguishing media:**

None

**Hazardous combustion product:**

Products released during thermic decomposition are toxic and are composed of carbon monoxide, and carbon dioxide.

**Specific Hazards Arising from the Chemical:**

The vapour is heavier than air, spreads along the ground and distant ignition is possible.

Carbon monoxide may be evolved if incomplete combustion occurs.

**Advices for fire-fighters:**

Proper protective equipment including chemical resistant gloves are to be worn; chemical resistant suit is indicated if large contact with spilled product is expected. Self-Contained Breathing Apparatus must be worn when approaching a fire in a confined space. Select fire fighter's clothing approved to relevant Standards.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures:**

Use the personal protective equipment recommended in Section 8 of this safety data sheet.

**Environmental precautions:**

Shut off leaks, if possible without personal risks. Remove all possible sources of ignition in the surrounding area.

Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers. Attempt to disperse the vapour or to direct its flow to a safe location for example by using fog sprays. Take precautionary measures against static discharge.

Ensure electrical continuity by bonding and grounding all equipment.

Ventilate contaminated area thoroughly.

**Methods and materials for containment and cleaning up:**

Small Spill: Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Large Spill: Keep away from heat and sources of ignition. Absorb with dry earth, sand or other non combustible material. Prevent entry into sewers, basements or confined areas; dike or reroute the water to minimize spread contamination. Keep the concentration level of product above TLV.

## 7. HANDLING AND STORAGE

### Precaution for safe handling:

Handle and open the containers with precaution. Keep containers electrically grounded specially during manipulation or while transferring. The material can accumulate static.

### Protection against fire and explosion:

Bulk storage tanks should be diked. Extinguish any naked flames. Do not smoke. Remove ignition sources. Avoid sparks. Electrostatic discharge may cause fire. Ensure electrical continuity by bonding and grounding all equipment to reduce the risk. The vapours in the head space of the storage vessel may lie in the flammable/explosive range and hence may be flammable. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires. Do NOT use compressed air for filling, discharging, or handling operations.

### Conditions for safe storage:

In a cool, dry and well ventilated area. Keep away from incompatible material and from sources of ignition (naked flames, sparks, and electricity) and do not expose to temperatures above 40°C. Keep the containers grounded especially during pumping and transfer operations.

### General Precautions:

Avoid breathing of or direct contact with material. Only use in well ventilated areas. Wash thoroughly after handling. For guidance on selection of personal protective equipment see Chapter 8 of this Safety Data Sheet. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material. Ensure that all local regulations regarding handling and storage facilities are followed.

### Packaging material:

Suitable material: For containers, or container linings use mild steel, stainless steel.

Unsuitable material: Natural, butyl, neoprene or nitrile rubbers.

Container Advice

Containers, even those that have been emptied, can contain explosive vapours. Do not cut, drill, grind, weld or perform similar operations on or near containers.

## 8. EXPOSURE CONTRÔLE/PERSONAL PROTECTION

Components with workplace control parameters

Chemical name	Value type	Control parameters	Basis
isopropyl alcohol	TWA	200 ppm	ACGIH
	STEL	400 ppm	ACGIH
	TWA	400 ppm 980 mg/m3	OSHA Z-1

### Engineering measures:

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include:

Use sealed systems as far as possible.

Adequate explosion-proof ventilation to control airborne concentrations below the exposure guidelines/limits.

Local exhaust ventilation is recommended.

Firewater monitors and deluge systems are recommended.

Eye washes and showers for emergency use.

Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.

### General Information:

Always observe good personal hygiene measures, such as washing hands after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

Define procedures for safe handling and maintenance of controls.

Educate and train workers in the hazards and control measures relevant to normal activities associated with this product.

Ensure appropriate selection, testing and maintenance of equipment used to control exposure, e.g. personal protective equipment, local exhaust ventilation.

Drain down system prior to equipment break-in or maintenance.

Retain drain downs in sealed storage pending disposal or subsequent recycle.

Personal protective equipment

**Respiratory protection:**

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation.

Check with respiratory protective equipment suppliers.

Where air-filtering respirators are unsuitable (e.g. airborne concentrations are high, risk of oxygen deficiency, confined space) use appropriate positive pressure breathing apparatus.

Where air-filtering respirators are suitable, select an appropriate combination of mask and filter.

If air-filtering respirators are suitable for conditions of use:

Select a filter suitable for organic gases and vapours

**Eye protection:**

Wear goggles for use against liquids and gas.

Wear full face shield if splashes are likely to occur.

**Skin and body protection:**

Wear antistatic and flame retardant clothing if a local risk assessment deems it so.

Skin protection is not required under normal conditions of use.

For prolonged or repeated exposures use impervious clothing over parts of the body subject to exposure.

If repeated and/or prolonged skin exposure to the substance is likely, then wear suitable gloves tested to relevant Standard, and provide employee skin care programmes.

**Protective measures:**

Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

**Hygiene measures:**

Wash hands before eating, drinking, smoking and using the toilet.

Launder contaminated clothing before re-use.

**Environmental exposure controls:**

General advice

Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapour. Minimise release to the environment. An environmental assessment must be made to ensure compliance with local environmental legislation.

Information on accidental release measures are to be found in section 6.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

<b>Physical state :</b> Liquid	<b>Appearance :</b> Colorless	<b>Odor :</b> typical	<b>Odor threshold :</b> Not available
<b>Vapor tension (20°C):</b> 33 mm Hg	<b>Vapor density (air=1) :</b> 2	<b>Evaporating rate(butyl acetate =1):</b> 1.5	

<b>Boiling point</b> :82C	<b>Freezing point</b> : -89°C	pH : not applicable
<b>Density (20°C)</b> : 0.79	<b>Distribution factor water/oil</b> : log = 1	<b>Water solubility</b> : miscible in all proportion
<b>Flash point</b> : ≥12 °C	<b>Auto-ignition temperature</b> : ≥339°C	<b>Explosive limits</b> : 2 % vol - 12 vol %

## 10. STABILITY AND REACTIVITY

### Reactivity:

The product does not pose any further reactivity hazards in addition to those listed in the following sub-paragraph.

### Chemical stability:

Stable under normal condition

### Possibility of hazardous reactions:

Reacts with strong oxidizing agents.

### Conditions to avoid:

Avoid heat, sparks, open flames and other ignition sources.

Prevent vapour accumulation.

In certain circumstances product can ignite due to static electricity.

### Incompatible materials

Avoid strong oxidizing agents, caustic, ammoniac, chlorinated solvents, alkanolamine and aldehydes.

### Hazardous decomposition products

Products released during thermic decomposition are toxic and are composed of carbon monoxide, and carbon dioxide.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure:

Exposure may occur via inhalation, ingestion, skin absorption, skin or eye contact, and accidental ingestion.

### Acute toxicity:

Product:

Acute oral toxicity

LD50 (Rat): > 5,000 mg/kg Remarks: Low toxicity:

**Acute inhalation toxicity** :Remarks: Low toxicity by inhalation.

**Acute dermal toxicity**:LD50 (Rabbit): > 5,000 mg/kg Remarks: Low toxicity

### Skin corrosion/irritation:

Product: Remarks: Not irritating to skin.

Serious eye damage/eye irritation

Product: Remarks: Causes serious eye irritation.

### Respiratory or skin sensitisation:

Product: Remarks: Not expected to be a sensitiser.

### Germ cell mutagenicity:

Product:

Genotoxicity in vivo

Remarks: Not mutagenic.

### Carcinogenicity:

Product: Remarks: Not a carcinogen

### Reproductive toxicity:

Product:

Effects on fertility

Remarks: Does not impair fertility. Not a developmental toxicant.

### STOT - single exposure:

Product:

Remarks: May cause drowsiness and dizziness.

**STOT - repeated exposure:**

Product:

Remarks: Kidney: caused kidney effects in male rats which are not considered relevant to hu-mans

**Aspiration toxicity:**

Product:

Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.

**Further information:**

Product:

Remarks: Exposure may enhance the toxicity of other materials. Classifications by other authorities under varying regulatory frameworks may exist.

## 12.ECOLOGICAL INFORMATION

**Eco toxicity:**

Product:

Toxicity to fish (Acute toxicity)

Remarks: Practically non toxic: LL/EL/IL50 > 100 mg/l

Toxicity to crustacean (Acute toxicity)

Remarks: Practically non toxic: LL/EL/IL50 > 100 mg/l

Toxicity to algae/aquatic plants (Acute toxicity)

Remarks: Practically non toxic: LL/EL/IL50 > 100 mg/l

Toxicity to fish (Chronic toxicity)

Remarks: Data not available

Toxicity to crustacean (Chronic toxicity)

Remarks: Data not available

Toxicity to microorganisms (Acute toxicity)

Remarks: Practically non toxic: LL/EL/IL50 > 100 mg/l

**Persistence and degradability:**

Product:

**Biodegradability:**

Remarks: Readily biodegradable. Oxidises rapidly by photo-chemical reactions in air.

**Bioaccumulation:**

Remarks: Not expected to bio accumulate significantly.

Partition coefficient: n-octanol/water log Pow: 0.05

**Mobility in soil:**

Product Dissolves in water. If the product enters soil, one or more constituents will or may be mobile and may contaminate groundwater.

**Other adverse effects:**

Product:

**Additional ecological information:**

Not expected to have ozone depletion potential.

## 13.DISPOSAL CONSIDERATION

**Disposal methods:**

**Waste from residues:**

Recover or recycle if possible.

It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations.

Do not dispose into the environment, in drains or in water courses

Waste product should not be allowed to contaminate soil or water.

Disposal should be in accordance with applicable regional, national, and local laws and regulations.

Local regulations may be more stringent than regional or national requirements and must be complied with.

**Contaminated packaging:**

Drain container thoroughly.

After draining, vent in a safe place away from sparks and fire. Residues may cause an explosion hazard.

Do not, puncture, cut, or weld uncleaned drums.

Send to drum recoverer or metal reclaimer.

**14. TRANSPORT INFORMATION**

Regulation	UN No.	Proper Shipping Name	Transport Hazard Regulation Class	Packing Group
Canadian TDG	1219	ISOPROPANOL	3	II

**15. REGULATORY INFORMATION**

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

**16. OTHER INFORMATION**

Prepared by:  
Hall Chem Mfg. Inc.

Date / Revised: December 2017

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