



## SDS Report

No.: GZ1011130198/CHEM

Date: NOV 30, 2010

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Client's Name : HALLOA ENTERPRISE CO., LTD.,  
Client's Address : BUILDING B1,HAOER INDUSTRIAL AREA GONGHE INDUSTRIAL ROAD,SHAJING STREET ,BAOAN ZONE,SHENZHEN,CHINA

SGS Ref No. : GC101107066  
SGS Internal Reference No. : 4.3  
Product Name : IPA (ISOPROPYL ALCOHOL) CLEANING SOLUTION  
End Uses : CLEANING SOLUTION FOR AUDIO/VIDEO/CD DISK/DIGITAL/COMPUTER RELATED PRODUCTS

Composition/Ingredient : Isopropyl Alcohol (50%); water (50%).

Job Receiving Date : NOV 16, 2010  
Preparation Period : NOV 16, 2010 TO NOV 30, 2010

### Service Requested

Safety Data Sheet for the Product

### SUMMARY

The contents and format of this SDS are in accordance with REGULATION (EC) No. 1907/2006 and REGULATION (EC) No. 1272/2008.

\*\*\*\*\*

Signed for and on behalf of  
SGS-CSTC Ltd.

Allen Xie  
Approved Signatory

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# Safety Data Sheet

## Regulation No. 1907/2006, 1272/2008

Printing date 30.11.2010

Revision: 18.11.2010

### 1 Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** IPA (ISOPROPYL ALCOHOL) CLEANING SOLUTION
- **Article number:** Not available
- **Registration number:** Not available
- **1.2 Relevant identified uses of the substance or mixture and uses advised against:**
- **Application of the substance / the preparation:**  
CLEANING SOLUTION FOR AUDIO/VIDEO/CD DISK/DIGITAL/COMPUTER RELATED PRODUCTS
- **1.3 Details of the supplier of the safety data sheet**  
HALLOA ENTERPRISE CO., LTD.,  
BUILDING B1,HAOER INDUSTRIAL AREA GONGHE INDUSTRIAL ROAD,SHAJING STREET ,BAOAN ZONE,SHENZHEN,CHINA  
TEL:+86-755-27685380  
FAX:+86-755-27685379  
E-MAIL :halloa42@halloa.com.tw
- **Only Representative / other EU contact point:** Contact in Member State at confirmation stage
- **Further information obtainable from:** HALLOA ENTERPRISE CO., LTD.,
- **1.4 Emergency telephone number:** +86- 755-27685380
- **Reference Number:** GC101107066-4.3; GZ1011130198/CHEM

### 2 Hazards identification

- **2.1 Classification of the substance or mixture**
- **Hazard description:**



*Xi Irritant*  
*F Highly flammable*

- **Information concerning particular hazards for human and environment:**  
The product has been classified as dangerous according to Directive 67/548/EEC, 1999/45/EC and Regulation (EC) No. 1272/2008.  
R 11 Highly flammable.  
R 36 Irritating to eyes.  
R 67 Vapours may cause drowsiness and dizziness.
- **Classification system:**  
The classification is according to the latest edition of the EU Directive 67/548/EEC, 1999/45/EC and Regulation 1272/2008/EC, and extended by company and literature data.
- **2.2 Label elements**
- **GHS label elements:**



2.6/2 - Highly flammable liquid and vapour.



3.1/3 - Toxic if swallowed.  
3.3/2A - Causes serious eye irritation.  
3.8/3 - May cause drowsiness or dizziness.

- **Prevention:**  
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- **Response:**  
*IF SWALLOWED:* Immediately call a POISON CENTER or doctor/physician.  
*IF ON SKIN (or hair):* Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
*IF IN EYES:* Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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**Trade name: IPA (ISOPROPYL ALCOHOL) CLEANING SOLUTION**

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- **Storage:**  
Store locked up.
- **Disposal:**  
Dispose of contents/container in accordance with local/regional/national/international regulations.
- **2.3 Other hazards:** Narcotic at high vapor concentrations.

### 3 Composition/information on ingredients

- **3.1 Substance:** Not applicable. Please refer to 3.2 for more information.
- **3.2 Mixture:** Please view below

- **Chemical characterization**

- **Description:**

Mixture of the substances listed below with nonhazardous additions.

For the wording of listed risk phrases refer to section 16.

- **Dangerous components:**

CAS: 67-63-0	propan-2-ol	☒ Xi, ☒ F; R 11-36-67	50,0%
EINECS: 200-661-7		Danger: ☒ 2.6/2	
EU number: 603-117-00-0		Warning: ☒ 3.3/2A, 3.8/3	

- **Non-dangerous components:**

CAS: 7732-18-5	water		50,0%
EINECS: 231-791-2			

- **Remark:**

Isopropyl Alcohol (CAS No. :67-63-0)

Synonym: Propan-2-ol

### 4 First aid measures

- **4.1 Description of first aid measures**

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**  
Immediately wash with water and soap and rinse thoroughly.  
If skin irritation continues, consult a doctor.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Do not induce vomiting; call for medical help immediately.
- **Information for doctor:**
- **The following symptoms may occur:**  
Headache, dizziness, nausea, narcosis, dryness of the skin, ingestion may cause inebriation and coma, irritation of skin, eyes and respiratory tract.
- **Hazards**  
Dermatitis may result from prolonged or repeated exposure causes central nervous system depression.
- **Treatment** Not available
- **4.2 Most important symptoms and effects, both acute and delayed:** Not available
- **4.3 Indication of any immediate medical attention and special treatment needed:** Not available

### 5 Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** CO<sub>2</sub>/foam/dry chemical/sand or earth.
- **For safety reasons unsuitable extinguishing agents:** Water in a jet.

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- **5.2 Special hazards arising from the substance or mixture:**  
Hazardous combustion products may include carbon monoxide. The vapor is heavier than air, spreads along the ground and distant ignition is possible.
- **Protective equipment:**  
Wear self-contained respiratory protective device.  
Wear fully protective suit.
- **5.3 Advice for firefighters:** Not available
- **Additional information** Keep adjacent containers cool by spraying with water.

### 6 Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures:**  
Avoid contact with skin and eyes. Ventilate contaminated area thoroughly. Do not breathe vapor. Extinguish naked flames. Remove ignition sources. No smoking. Avoid sparks. Evacuate the area of all non-essential personnel. Shut off leaks, if possible without personal risk.  
Wear PVC, neoprene, or nitrile rubber gloves, PVC one-piece suit with integral hood, safety boots, rubber, knee length. Wear full face-piece respirator with organic vapor canister NPF 400. In a confined space, wear self-contained breathing apparatus open circuit type NPF 2000.
- **6.2 Environmental precautions:**  
Prevent contamination of soil and water. Prevent from spreading or entering into drains, ditches or rivers by using sand, earth, or other appropriate barriers.  
Risk of explosion, inform the emergency services if liquid enters surface water drain. Vapor may form an explosive mixture with air.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Ensure adequate ventilation.  
Transfer to a labeled, sealable container for product recovery or safe disposal.  
Treat residues as for small spillage.
- **6.4 Reference to other sections:** Please view below.

### 7 Handling and storage

- **7.1 Precautions for safe handling:**  
Ensure good ventilation/exhaustion at the workplace.  
Avoid prolonged or repeated contact with skin.
- **Information about fire - and explosion protection:**  
Extinguish any naked flames. Remove ignition sources. Avoid sparks. Do not smoke.  
Take precautionary measures against static discharges. Earth all equipment. Do not empty into drain.
- **7.2 Conditions for safe storage, including any incompatibilities:**
- **Requirements to be met by storerooms and receptacles:**  
Tanks should be fitted with a vapor recovery system.  
Keep away from direct sunlight and other sources of heat or ignition.  
Do not smoke in storage areas.

**Recommended materials:**

For containers or container linings, use mild steel or stainless steel. For container paints, use zinc silicate. If diluted with de-ionized water, steel containers may be unsuitable.

**Unsuitable materials:**

Most plastics, aluminum if >50C, neoprene rubber.

- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Take precautionary measures against static discharges.  
Earth all equipment.  
Avoid splash filling.
- **Incompatibilities:** Not available

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**Trade name: IPA (ISOPROPYL ALCOHOL) CLEANING SOLUTION**

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· <b>Form:</b>	Liquid at ambient temperature
· <b>Colour:</b>	Clear
· <b>Odour:</b>	Characteristic
· <b>Change in condition</b>	
· <b>Melting point/Melting range:</b>	-90°C
· <b>Boiling point/Boiling range:</b>	Not available
· <b>Freezing point:</b>	Not available
· <b>Flash point:</b>	12°C (Abel)
· <b>Flammability (solid, gaseous):</b>	Not available
· <b>Ignition temperature:</b>	Not available
· <b>Decomposition temperature:</b>	Not available
· <b>Self-igniting:</b>	Product is not selfigniting.
· <b>Danger of explosion:</b>	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· <b>Explosion limits:</b>	
· <b>Lower:</b>	2 Vol %
· <b>Upper:</b>	12 Vol %
· <b>Oxidizing properties</b>	Not available
· <b>Vapour pressure at 20°C:</b>	4,3 KPa
· <b>Density at 20°C:</b>	785 g/cm <sup>3</sup>
· <b>Relative density</b>	Not available
· <b>Vapour density at 20°C</b>	2,0 (air=1)
· <b>Evaporation rate at 20°C</b>	1,5 (Relative) (n-Bu.Ac=1))
· <b>Solubility in / Miscibility with water:</b>	Fully miscible.
· <b>pH-value:</b>	Not available
· <b>Partition coefficient (n-octanol/water):</b>	<3 logPOW
· <b>Segregation coefficient (n-octanol/water):</b>	Not available
· <b>Viscosity:</b>	
· <b>Dynamic at 20°C:</b>	2,43 mPas
· <b>Auto-ignition temperature:</b>	425 °C
· <b>9.2 Other information:</b>	Not available

### 10 Stability and reactivity

- **10.1 Reactivity:** No decomposition if used according to specifications.
- **10.2 Chemical stability:**  
Stable under normal conditions, reacts with strong oxidizing agents, react with strong acids.
- **10.3 Possibility of hazardous reactions:** Not available
- **10.4 Conditions to avoid:** Heat, flames and sparks.
- **10.5 Incompatible materials:** Not available
- **Materials to be avoided:** Strong oxidizing agents, strong acids.
- **Dangerous reactions:** No dangerous reactions known.
- **10.6 Hazardous decomposition products:** None known.

### 11 Toxicological information

- **11.1 Information on toxicological effects**

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**Trade name: IPA (ISOPROPYL ALCOHOL) CLEANING SOLUTION**

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- **Acute toxicity**
- oral:LD50>2000mg/kg
- dermal:LD50>2000mg/kg
- inhalation:LC50>5mg/l

**LD/LC50 values relevant for classification:**
**67-63-0 propan-2-ol**

Oral	LD50	5045 mg/kg (rat)
Dermal	LD50	12800 mg/kg (rabbit)
Inhalative	LC50/4 h	30 mg/l (rat)

- **Primary irritant effect**
- **on the skin:** Slight irritant.
- **on the eye:** Slight irritant.
- **Sensitization:** Sensitization possible.
- **Other information (about experimental toxicology):** Respiratory irritation: Irritant in animal studies.
- **Subacute to chronic toxicity:** Repeated exposure causes liver damage.
- **Additional toxicological information:**  
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:  
Irritant
- **Toxicokinetics, metabolism and distribution:** Not available
- **Acute effects (acute toxicity, irritation and corrosivity):** Not available
- **Repeated dose toxicity:**  
Human effects: Repeated exposure can lead to allergic contact dermatitis. High exposures can cause drowsiness and dizziness, and liver damage.

## 12 Ecological information

- **12.1 Toxicity:** Not available
- **12.2 Persistence and degradability:** Readily bio-degradable, oxidizes rapidly by photo chemicals in air.
- **Other information:**  
Propan-2-ol                      67-63-0                      Biodegradable>90%  
Water                              7732-18-5                      Biodegradable>90%
- **12.3 Bioaccumulative potential:** Do not bio-accumulate.
- **Acute toxicity-fish:** LC50>100mg/l
- **Acute toxicity-daphnia:** EC50>100mg/l
- **Acute toxicity-algae:** IC50>100mg/l
- **Acute toxicity-bacteria:** IC50>100mg/l
- **12.4 Mobility in soil:** Large volumes may penetrate soil and could contaminate groundwater.
- **Mobility in water:** Dissolves in water, lost within a day by evaporation and dissolution.
- **12.5 Results of PBT and vPvB assessment:** Not available
- **12.6 Other adverse effects:** Pose a significant risk of oxygen depletion in aquatic systems.
- **Behaviour in sewage processing plants:**
- **Type of test** *Effective concentration Method Assessment*  
Practically non-toxic, EC50>100mg/l, organisms in sewage treatment plants.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

## 13 Disposal considerations

- **13.1 Waste treatment methods** Recover or recycle if possible, otherwise incineration.

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**Trade name: IPA (ISOPROPYL ALCOHOL) CLEANING SOLUTION**

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- **Product**
- **Recommendation:**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system. Recover or recycle if possible, otherwise incineration.
- **Uncleaned packaging**
- **Recommendation:**  
Drain container thoroughly. After draining, vent in a safe place away from sparks and fire. Send to drum recover or metal reclaim. Residues may cause an explosion hazard. Do not puncture, cut or weld un-cleaned drums.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### 14 Transport information

#### · 14.1 Land transport ADR/RID (cross-border)



- 14.1.1 ADR/RID class: 3 Flammable liquids.
- Danger code (Kemler): 33
- 14.1.2 UN-Number: 1219
- 14.1.3 Packaging group: II
- 14.1.4 Description of goods: 1219 ISOPROPANOL (ISOPROPYL ALCOHOL), solution
- Limited quantities (LQ): LQ4
- Transport category: 2
- Tunnel restriction code: D/E

#### · 14.2 Maritime transport IMDG



- 14.2.1 IMDG Class: 3
- 14.2.2 UN Number: 1219
- Label: 3
- 14.2.3 Packaging group: II
- EMS Number: F-E,S-D
- Marine pollutant: No
- 14.2.4 Proper shipping name: ISOPROPANOL (ISOPROPYL ALCOHOL), solution

#### · 14.3 Air transport ICAO-TI and IATA-DGR



- 14.3.1 ICAO/IATA Class: 3
- 14.3.2 UN/ID Number: 1219
- Label: 3
- 14.3.3 Packaging group: II
- 14.3.4 Proper shipping name: ISOPROPANOL (ISOPROPYL ALCOHOL), solution

- UN "Model Regulation": UN1219, ISOPROPANOL (ISOPROPYL ALCOHOL), solution, 3, II
- 14.4 Environmental hazards: Not available
- 14.5 Special precautions for users: Not available

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· 14.6 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not available

### 15 Regulatory information

· 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

· Sara

· Section 335(extremely hazardous substances):

None of the ingredients is listed.

· Section 313(specific toxic chemical listings):

67-63-0 | propan-2-ol

· TSCA(Toxic Substances Control Act):

All ingredients are listed.

· Proposition 65

· Chemical known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· Cancerogenity categories

· EPA(Environmental Protection Agency)

None of the ingredients is listed.

· IARC(International Agency for Research on Cancer)

67-63-0 | propan-2-ol

3

· NTP(National toxicology Program)

None of the ingredients is listed.

· TLV(Threshold Limit Value established by ACGIH)

67-63-0 | propan-2-ol

A4

· MAK(German Maximum Workplace Concentration)

None of the ingredients is listed.

· NIOSH-Ca(National Institution for Occupational Safety &amp; Health )

None of the ingredients is listed.

· OSHA-Ca(Occupational Safety &amp; Health Administration)

None of the ingredients is listed.

· Labelling according to EU guidelines:

The product has been classified as dangerous according to Directive 67/548/EEC, 1999/45/EC and Regulation (EC) No. 1272/2008.

· Code letter and hazard designation of product:


 Xi Irritant  
 F Highly flammable

· Risk phrases:

11 Highly flammable.

36 Irritating to eyes.

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67 Vapours may cause drowsiness and dizziness.

· **Safety phrases:**

- 2 Keep out of the reach of children.
- 7/9 Keep container tightly closed and in a well-ventilated place.
- 46 If swallowed, seek medical advice immediately and show this container or label.
- 56 Dispose of this material and its container to hazardous or special waste collection point.

· **National regulations**

- **Candidate List of Substances of very high concern (SVHC) according to ECHA (18/06/2010)**  
None of the ingredients is listed
- **REACH Regulation Annex XVII Restriction List** None of the ingredients is listed
- **REACH Regulation Annex XIV Authorization Recommendation List** None of the ingredients is listed
- **15.2 Chemical safety assessment:** Not available

### 16 Other information

· \*\*\*\*\*  
The contents and format of this MSDS/SDS are in accordance with REGULATION(EC) No. 1272/2008, (EC) No. 1907/2006, EU Commission Directive 1999/45/EC, 67/548/EEC.

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· **Relevant R-phrases**

- 11 Highly flammable.
- 36 Irritating to eyes.
- 67 Vapours may cause drowsiness and dizziness.

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)  
ICAO: International Civil Aviation Organization  
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
ACGIH: American Conference of Governmental Industrial Hygienists  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent

· \*\*\*\*\*  
End of report

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