



Material Safety Data Sheet

Conforms to the ANSI Z400.1-2004 Standard (USA, Canada, Mexico) Group

Date of Issue: 03/10/2015

1. Product and company identification

Group:	Wipers Pre-Wet with 70% Isopropyl Alcohol
Product name:	ISO-MED Pre-wet Wipers
Code:	ISO-PS911, ISO-PS-911S
Material uses:	ISO-MED manufactures cleanroom contamination control consumable products utilizing natural and synthetic based substrates
Supplier/Manufacturer:	ISO-MED 1275 Graphite Drive Corona, CA 92881 Tel : 1-800-797-1405 Fax : 1-951-547-1681 Website : www.iso-med.com
In case of emergency (USA):	CHEMTEL International: (800) 255-3924
Outside USA:	CHEMTEL International: (01) 813-248-0585
MSDS authored by: :	Kemika XXI Inc. + 1 (450)-435-7475

2. Hazards identification

Physical state:	Pre-wetted wipers
Odor:	Alcohol-like. (Strong)
Color:	Colorless
Hazard Status:	This material is classified hazardous under OSHA regulations in the United States, the WHMIS Controlled Product Regulation in Canada and the NOM-018-STPS-2000 in Mexico
Emergency overview:	WARNING! FLAMMABLE SOLID. VAPOR MAY CAUSE FIRE. CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. MAY CAUSE LIVER, HEART, & REPRODUCTIVE EFFECTS, BASED ON ANIMAL DATA. CONTAINS MATERIAL WHICH MAY CAUSE DAMAGE TO THE FOLLOWING ORGANS: CENTRAL NERVOUS SYSTEM. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Avoid breathing vapor or mist. Keep away from heat, sparks and flame. Wash thoroughly after handling.
Routes of entry:	Dermal contact. Eye contact. Inhalation. Ingestion
Potential acute health effects	
Eyes:	Irritating to eyes
Skin:	Irritating to skin
Inhalation:	Irritating to respiratory system
Ingestion:	No known significant effects or critical hazards

Potential chronic health effects

Carcinogenic effects: Classified None. by OSHA [Isopropyl alcohol]. Classified A4 (Not classifiable for humans or animals.) by ACGIH, 3 (Not classifiable for humans.) by IARC [Isopropyl alcohol]. Mutagenic effects: Classified None. for humans [Isopropyl alcohol]. Teratogenic effects: Not available.

Medical conditions

aggravated by overexposure Repeated or prolonged contact with spray or mist may produce chronic eye irritation and severe skin irritation.

See toxicological information (section 11)

3. Composition/information on ingredients

United States

Name	CAS number	%
Isopropyl alcohol	67-63-0	70

Canada

Name	CAS Number	%
Isopropyl alcohol	67-63-0	70

Mexico

Name	UN number	IDLH	H F R Special	CAS number	%
Isopropyl alcohol	UN1219	2000 ppm	1 2 0	67-63-0	70

Final product is comprised of solid cloth media that is saturated with the above components. Fill volume is controlled to ensure that no free liquid is present in the final product packaging.

4 . First aid measures

Eye contact:	Check for and remove any contact lenses. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur.
Skin contact:	Wash with soap and water. Get medical attention if symptoms occur.
Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms appear.
Ingestion:	Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.
Notes to physician:	No specific antidote. Medical staff must contact Poison Control Center.
Protection of first-aiders :	No action shall be taken involving any personal risk or without suitable training.

5. Fire-fighting measures

Flammability of the product:	Flammable.
Products of combustion:	These products are carbon oxides.
Extinguishing media	
Suitable:	Use dry chemical powder.
Not suitable:	Do not use water jet.
Special protective equipment for fire-fighters:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

Personal Precautions:	Use suitable protective equipment. Eliminate all ignition sources.
Environmental precautions:	Avoid dispersal of spilled material, runoff and contact with soil, waterways, drains and sewers

Methods for cleaning up : Place spilled material in an appropriate container for disposal.

7. Handling and storage

Handling: Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Avoid breathing vapor or mist. Keep away from heat, sparks and flame. Wash thoroughly after handling.

Storage: Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

8. Exposure controls/personal protection

United States

Product name
Isopropyl alcohol

Exposure limits
ACGIH TLV (United States, 1/2005).
STEL: 400 ppm 15 minute(s). Form: All forms.
TWA: 200 ppm 8 hour(s). Form: All forms.
NIOSH REL (United States, 12/2001).
STEL: 1225 mg/m₃ 15 minute(s). Form: All forms.
STEL: 500 ppm 15 minute(s). Form: All forms.
TWA: 980 mg/m₃ 10 hour(s). Form: All forms.
TWA: 400 ppm 10 hour(s). Form: All forms.
OSHA PEL (United States, 8/1997).
TWA: 980 mg/m₃ 8 hour(s). Form: All forms.
TWA: 400 ppm 8 hour(s). Form: All forms.

Canada

Product name
Isopropyl alcohol

Exposure limits
ACGIH TLV (Canada, 1/2005).
STEL: 400 ppm 15 minute(s). Form: All forms.
TWA: 200 ppm 8 hour(s). Form: All forms.

Mexico

Product name
Isopropyl alcohol

Exposure limits
NOM-010-STPS (Mexico, 9/2000). Skin
CCT: 1225 mg/m₃ 15 minute(s). Form: All forms
CCT: 500 ppm 15 minute(s). Form: All forms
CPT: 980 mg/m₃ 8 hour(s). Form: All forms
CPT: 400 ppm 8 hour(s). Form: All forms

Engineering measures: Use only with adequate ventilation. If user operations generate dust, fumes, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits.

Personal protection

Eyes: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. Recommended: Safety glasses.

Skin: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Body: Recommended: Lab coat.

Respiratory: A respirator is not needed under normal and intended conditions of product use.

Hands : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk

assessment indicates this necessary. Recommended: Rubber gloves.



Personal protection in case of large spill:

Safety glasses, goggles or face shield. Impervious gloves. Full suit. Boots. Wear NIOSH approved self-contained breathing apparatus or equivalent and full protective gear.

Hygiene measures:

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

9. Physical and chemical properties

Physical state:	Pre-wetted wipers.
Flash point:	Closed cup: 20°C (68°F). (Tagliabue)
Auto-ignition temperature:	The lowest known value is 399°C (750.2°F) (Isopropyl alcohol)
Flammable limits:	The greatest known range is Lower: 2.5% Upper: 12% (Isopropyl alcohol)
Color:	Colorless
Odor:	Alcohol-like. (Strong)
pH:	Neutral
Boiling/condensation point:	82°C (179.6°F)
Melting/freezing point:	Weighted average: -62.22°C (-80°F)
Relative density:	0.89 (Water = 1)
Vapor density:	Weighted average: 1.63 (Air = 1)
Vapor pressure:	Weighted average: 3.77 kPa (28.28 mm Hg) (at 20°C)
Evaporation rate:	Weighted average: 1.3 compared with Butyl acetate.
Solubility	Insoluble

10. Stability and reactivity

Stability and reactivity:	The product is stable
Incompatibility with various Substances:	Reactive with oxidizing materials and alkalis
Hazardous polymerization:	Will not occur
Conditions of reactivity :	Flammable in the presence of the following materials or conditions: open flames, sparks and static discharge, heat and shocks and mechanical impacts.

11. Toxicological information

Product/ingredient name	Toxicity data		Route	Species
	Test	Result		
Isopropyl alcohol	LD50	5045 mg/kg	Oral	Rat
	LD50	6410 mg/kg	Oral	Rabbit
	LD50	3600 mg/kg	Oral	Mouse
	LD50	12800 mg/kg	Dermal	Rabbit
	LC50	16000 ppm (8 hours)	Inhalation	Rat

Acute Effects

Eyes:	Irritating to eyes.
Skin:	Irritating to skin.
Inhalation:	Irritating to respiratory system.
Ingestion:	No known significant effects or critical hazards.

Potential chronic health effects:

Carcinogenic effects: Classified None. by OSHA [Isopropyl alcohol]. Classified A4 (Not classifiable for humans or animals) by ACGIH, 3 (Not

classifiable for humans.) by IARC [Isopropyl alcohol].
 Mutagenic effects: Classified None. for humans [Isopropyl alcohol].
 Teratogenic effects: Not available.

Target organs:

Contains material which may cause damage to the following organs: central nervous system (CNS).

12. Ecological information

Product/ingredient name	Ecotoxicity data		
	Species	Period	Result
Isopropyl alcohol	Pimephales promelas (EC50)	48 hour(s)	10000 mg/l
	Lepomis macrochirus (LC50)	96 hour(s)	>1400 mg/l
	Pimephales promelas (LC50)	96 hour(s)	6550 mg/l
	Pimephales promelas (LC50)	96 hour(s)	9640 mg/l
	Pimephales promelas (LC50)	96 hour(s)	10400 mg/l
	Pimephales promelas (LC50)	96 hour(s)	11130 mg/l
	Pimephales promelas (LC50)	96 hour(s)	11130 mg/l

Environmental precautions: No known significant effects or critical hazards.

Toxicity of the products of

Biodegradation:

The product itself and its products of degradation are not toxic.

Products of degradation:



These products are carbon oxides and water.

13. Disposal considerations

Waste disposal:

The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material, runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional and local authority requirements.

14. Transport information

NAERG:	133					
Regulatory Information	Proper shipping name	Class	UN number	PG	Label	
DOT Classification	ORM-D N.O.S. (Isopropyl Alcohol)					
UN / IMDG / IATA Classification	SOLIDS CONTAINING FLAMMABLE LIQUID N.O.S. (Isopropyl alcohol)	4.1	UN3175	II		
TDG Classification	SOLIDS CONTAINING FLAMMABLE LIQUID N.O.S. (Isopropyl alcohol)	4.1	UN3175	II		

15. Regulatory information

United States

HCS Classification:

Flammable solid, Irritating material

U.S. Federal regulations:

TSCA: All components listed.

SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/304/311/312 hazardous chemicals: Isopropyl alcohol

SARA 311/312 MSDS distribution - chemical inventory - hazard identification:

Isopropyl alcohol: Fire hazard, Immediate (acute) health hazard, Delayed

(chronic) health hazard
 Clean Water Act (CWA) 307: No products were found.
 Clean Water Act (CWA) 311: No products were found.
 Clean Air Act (CAA) 112 accidental release prevention: No products were found.
 Clean Air Act (CAA) 112 regulated flammable substances: No products found.
 Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

SARA 313

	Product name	CAS number	Concentration
Form R – Reporting requirements	Isopropyl alcohol	67-63-0	70 - 100
Supplier notification	Isopropyl alcohol	67-63-0	70 - 100

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

State regulations:

Pennsylvania RTK: Isopropyl alcohol: (environmental hazard, generic environmental hazard)
 Massachusetts RTK: Isopropyl alcohol
 New Jersey: Isopropyl alcohol
 California prop. 65: No products were found

**Canada:
WHMIS (Canada)**

Class B-4: Flammable solid.
 Class D-2B: Material causing other toxic effects (Toxic).



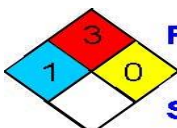
DSL : All components listed.

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

Mexico Classification:

Hazard Ratings 4= Extreme 3= Serious 2= Moderate 1= Slight 0= Minimal

Health



Flammability
 Reactivity
 Special

International lists:

All components listed are listed on major international inventories or exempted from being listed in Australia (AICS), Europe (EINECS/ELINCS), Korea (TCCL), Japan (METI/MOL), Philippines (RA6969).

16. Other information

Label requirements (U.S.A.) FLAMMABLE SOLID.
 VAPOR MAY CAUSE FIRE.
 CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION.
 CONTAINS MATERIAL WHICH MAY CAUSE DAMAGE TO THE FOLLOWING ORGANS: CENTRAL NERVOUS SYSTEM.

Hazardous Material Information System (U.S.A.)

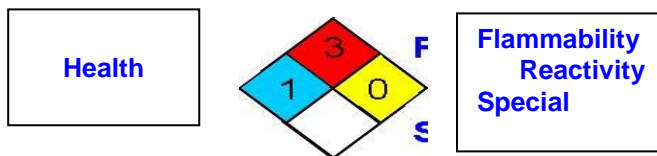
HMIS RATING

Health	*	1
Fire hazard		3
Physical Hazard		0
Personal protection		B

Hazard Ratings

4= Extreme
3= Serious
2= Moderate
1= Slight
0= Minimal

National Fire Protection Association (U.S.A.):



References:

ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. - 29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG. - Canada Gazette Part II, Vol. 122, No. 2. Registration SOR/88-64, 31 December 1987. Hazardous Products Act "Ingredient Disclosure List" - Canadian Transport of Dangerous Goods, Regulations and Schedules, Clear Language version 2005. - Official Mexican Standards NOM-018-STPS-2000 and NOM-004-SCT2-1994. Brazil NBR 14725:2001.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Date of Issue: 03/10/2015