Innovative Contamination Solutions

Safety Data Sheet

Teknisat 9-10% IPA / 90-91% DIW

Conforms to Hazard Communication Standard 29 CFR 1910.1200 (2012); United States, Mexico, & Canada
Date of Issue: 02/02/2018

1. Identification

Group:	**TekniPure® Wipers Pre-Wetted with 9% Isopropyl Alcohol (Isopropanol)**
Product Name:	**TekniSat® Wipers**
Product Code:	TS1PCI09-99, TS1MFI09-99, TS1MPI09-911, TS2PUI09-99, TS2PUI09R-99, TS2PUI09F-99, TS2PUI09Z-99, TS2PLI10-99, TS2PLI10R-99
Material uses:	Pre-saturated wipes containing 9-10% Isopropyl Alcohol & 90-91% Deionized Water used for cleaning surfaces or components.
Supplier/Manufacturer :	Teknipure LLC 2150 West Broadway Road, Suite #105 Mesa, AZ 85202 Tel : 1-(480) 821-3182 Fax : 1-(480) 452-1263 Website : www.teknipure.com
In case of emergency (USA):	CHEMTEL International: (800) 255-3924
Outside USA:	CHEMTEL International: (01) 813-248-0585

2. Hazards identification

Hazard pictograms:



Signal word: Warning

GHS Class:
Flammable Solid, Category 1
Eye Irritant, Category 2
Specific Target Organ Toxicity, Single Exposure, Category 3

Hazard Statements:
Flammable solid
Causes serious eye irritation
May cause drowsiness or dizziness

Hazard Status: This material is classified hazardous under OSHA Hazard Communication Standard (29 CFR 1910.1200) in the United States, the WHMIS Controlled Product Regulation in Canada and the NOM-018-STPS-2000 in Mexico

Precautionary Statements:

General: Read label & SDS before use. If medical advice is needed, have product label at hand.

Prevention: Wear appropriate protective gloves. Wear eye or facial protection. Keep away from open flames, sparks. No smoking. Take precautionary measures against static discharge. Wash hands thoroughly after handling.

Eyes: Eye contact with product or vapors may result in irritation, and blurred vision. May cause moderate corneal injury

Skin: May cause irritation. Repeated exposure may cause a burning sensation, dryness, and cracking.

Inhalation: Inhalation of vapor or fumes may be irritating to respiratory system. Excessive exposure (>400ppm) may cause eye, nose, & throat irritation. Exposure to higher levels of concentration may cause confusion, hypotension, circulatory collapse, respiratory arrest, and death may result from longer durations at higher levels. In poorly ventilated or confined areas; vapors can accumulate and lead to unconsciousness and death.

Ingestion: May cause irritation, ingesting large amounts may cause injury. May cause central nervous system depression, nausea, and vomiting. Aspiration into lungs can cause chemical pneumonitis which can be fatal.

Chronic Health Effects: Prolonged or repeated contact may cause skin irritation. Repeated or prolonged inhalation may cause toxic effects.

Symptoms: Overexposure may cause headaches, dizziness.

Target Organs: Eyes, Skin, Respiratory & Digestive systems

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.
First aid: Inhalation: Remove victim to fresh air. If victim is conscious, give water to dilute. Induce vomiting only if advised by physician. Eye Contact: Flush with water for 15 minutes. In all cases of over exposure, get medical attention immediately.

Routes of exposure: Dermal contact. Eye contact. Inhalation. Ingestion

Hazards not otherwise Classified: None known

See Toxicological information (section 11)

3. Composition/information on ingredients

United States

Name	CAS number	%
Isopropyl Alcohol	67-63-0	9
Deionized Water	7732-18-5	91

Canada

Name	CAS Number	%
Isopropyl Alcohol	67-63-0	9
Deionized Water	7732-18-5	91

Mexico

Name	UN number	IDLH	H F R Special	CAS number	%
Isopropyl Alcohol	UN1219	2000 ppm	1 2 0	67-63-0	9

Deionized Water	7732-18-5	91

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.

There are no additional ingredients included which are classified as hazardous to health or environment.

Occupational exposure limits are listed in Section 8.

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

Hazards 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.

See section 9 (Physical & Chemical properties)

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 waste 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.

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).

Special Handling Procedures: Warning! Used wipes may ignite if improperly discarded or stored near ignition sources

Hygiene Practices: Wash thoroughly after handling. Avoid vapors & fumes.

8. Exposure controls/personal protection

United States

Product name	Exposure limits
Isopropyl alcohol	**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/m$_3$ 15 minute(s). Form: All forms. STEL: 500 ppm 15 minute(s). Form: All forms. TWA: 980 mg/m$_3$ 10 hour(s). Form: All forms. TWA: 400 ppm 10 hour(s). Form: All forms. **OSHA PEL (United States, 8/1997).** TWA: 980 mg/m$_3$ 8 hour(s). Form: All forms. TWA: 400 ppm 8 hour(s). Form: All forms.

Canada

Product name	Exposure limits
Isopropyl alcohol	**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	Exposure limits
Isopropyl alcohol	**NOM-010-STPS (Mexico, 9/2000). Skin** CCT: 1225 mg/m$_3$ 15 minute(s). Form: All forms CCT: 500 ppm 15 minute(s). Form: All forms CPT: 980 mg/m$_3$ 8 hour(s). Form: All forms CPT: 400 ppm 8 hour(s). Form: All forms

Exposure Guidelines:

Isopropyl Alcohol:

Guideline ACGIH:	TLV-TWA: 200ppm TLV-STEL: 400ppm
Guideline OSHA:	PEL-TWA: 400ppm

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: 44°C (111.2°F). (Tagliabue)
Auto-ignition temperature: The lowest known value is 425°C (797°F) (Isopropyl alcohol)
Flammable limits: The greatest known range is Lower: 2.5% Upper: 12% (Isopropyl alcohol)
Color: Colorless
Odor: Alcohol-like. (Strong)
Odor Threshold: Not Determined
pH: Neutral
Specific Gravity: 0.986 @ 20* C (68F)
Boiling/condensation point: 87-89°C (189-192°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 compared with Butyl acetate.
Solubility Insoluble in water
Viscosity: Not determined
Percent Volatile: 100%

10. Stability and reactivity

Stability and reactivity: The product is stable under normal conditions and pressures

Incompatibility with various Substances: Reactive with Oxidizing materials, Alkalis, Aldehydes, Halogenated Organics

Hazardous polymerization: Will not occur

Conditions to avoid: Keep away from heat, ignition sources, & incompatible materials

11. Toxicological information

Toxicity data

Product/ingredient name	Test	Result	Route	Species
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).

See Section 2 for additional health effects, acute health effects, and toxicological data

12. Ecological information

Ecotoxicity data

Product/ingredient name	Species	Period	Result
Isopropyl alcohol	Pimephales promelas-minnow (EC50)	48 hour(s)	11130 mg/l
	Crangon crangon-shrimp (LC50)	48 hour(s)	1400000 ug/l
	Lepomis macrochirus-bluegill (LC50)	96 hour(s)	>1400 mg/l

Environmental precautions: No known significant effects or critical hazards.
Mobility in soil: Isopropyl alcohol has high mobility in soil
Bioaccumulation: Bio-concentration in aquatic organisms is low
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: Consult with USA EPA Guidelines listed in 40 CFR Part 261.3 or the EU Directive 2008/98/EC for the classifications on waste prior to 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

Regulatory Information	Proper shipping name	Class	UN number	PG	Label
DOT Classification	**Limited Quantity** N.O.S. (Isopropanol alcohol)				
UN / IMDG / IATA Classification	SOLIDS CONTAINING FLAMMABLE LIQUID N.O.S. (Isopropopanol alcohol) Not a marine pollutant	4.1	UN3175	II	
TDG Classification	SOLIDS CONTAINING FLAMMABLE LIQUID N.O.S. (Isopropanol alcohol)	4.1	UN3175	II	

Special Precautions for User : Always transport in sealed containers that are upright and secure.

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

Form R – Reporting requirements
Supplier notification

Product name	CAS number	Concentration
Isopropyl alcohol	67-63-0	70 - 100
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 SDS contains all the information required by the CPR.

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.

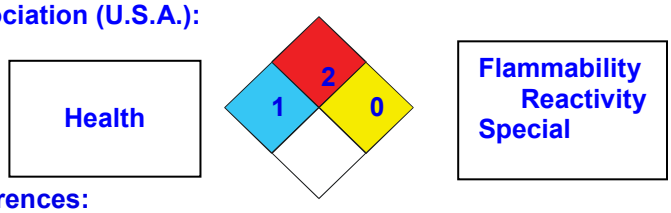
Hazardous Material Information System (U.S.A.)

HMIS RATING

Health	*	1
Fire hazard		2
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.

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