

1. Product and company identification

Product Name Isopropanol 70% Solution
 UN/ID No. DOT (U.S.): UN1219, Isopropanol (Isopropyl Alcohol)

Recommended use of the chemical and restrictions on use

Recommended Use For Industrial and Commercial Use Only

Supplier: **Butler Chemicals, Inc.**
 3070 E. Ceena CT.
 Anaheim, CA. 92806

Print date: January 24, 2018

Responsible name: K.B.
In case of emergency: **HEALTH EMERGENCIES — SPILL EMERGENCIES**
CALL INFOTRAC 1(800) 535-5053
1-800-535-5053 or +352-323-3500 (outside USA)

2. Hazards identification

Appearance: Colorless **Physical State:** Liquid **Odor:** Alcohol-like odor

Classification

Flammable liquids	Category 2, H225
Aspiration Hazard	Category 1, H304
Eye irritation	Category 2A, H319
Specific target organ toxicity – single exposure	Category 3, Central nervous system, H336

Signal Word: Danger



Hazard Statement

H225 Highly flammable liquid and vapour
 H304 May be fatal if swallowed and enters airways
 H319 Causes serious eye irritation
 H336 May cause drowsiness or dizziness

Precautionary Statements – Preventions

Keep away from heat/sparks/open flames/hot surfaces – No smoking
 Use explosion –proof electrical/ventilation/lighting/equipment
 Use only non-sparking tools
 Take precautionary measure against static discharge.

Use outdoors or in a well-ventilated area.
Do not get in Eyes, on Skin or on Clothing. Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Use only with adequate ventilation, use only outdoors or in a well-ventilated area
Do not breathe dust/fume/gas/mist/vapors/spray
Wear chemical resistant apron, chemical protective gloves/protective clothing/eye protection/face protection
Keep container closed.

Precautionary Statements – Response

Immediately call A POISON CENTER or doctor/physician
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so.
Continue rinsing immediately call a POISON CONTROL or doctor/physician
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Immediately call a POISON CENTER or doctor/physician
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician, Rinse mouth, **Do not induce vomiting!**

Precautionary Statements – Storage

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

Precautionary Statements –Disposal

Disposed of contents/container to (in accordance with local/regional/national/international regulations)

3. Composition/information on ingredients

<u>Name</u>	<u>CAS number</u>	<u>%</u>
Isopropanol, Isopropyl Alcohol	67-63-0	70%

4. First aid measures

Eye contact: Can cause moderate to severe irritation. Do NOT allow victim to rub or keep eyes closed. Check for and remove any contact lenses if easy to do so. Immediately flush eyes with running water for at least 30 minutes, keeping eyelids apart. Use cool running water. Do not use an eye ointment.

Skin contact: Can cause moderate irritation. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. For a large splash, flood body under a shower. Discard contaminated clothing in a manner which limits further exposure. Destroy contaminated shoes. If symptoms develop, seek medical attention.

Inhalation: If inhaled, remove to fresh air immediately and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention for any breathing difficulty.

Ingestion: Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

**Protection of first-aiders;
Note to physician** Persons with pre-existing skin disorders or impaired respiratory or pulmonary function may be at increased risk to the effects of this substance. Treat symptomatically and supportively.

5. Fire-fighting measures

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Use water in flooding quantities as fog.

Cool all affected containers with flooding quantities of water.

Apply water from as far a distance as possible.

Wear breathing apparatus plus protective gloves.

Prevent, by any means available, spillage from entering drains or water course.

If safe, switch off electrical equipment until vapor fire hazard removed.

If safe to do so, remove containers from path of fire.

Extinguishing media

Small fires: carbon dioxide, dry chemical, dry sand or alcohol-resistant foam

Large fires: dry chemical, carbon dioxide, alcohol-resistant foam or water spray.

Hazards form chemical product: (EX: hazardous combustion products)

Liquid and vapor are flammable

Severe fire hazards when exposed to heat, flame and/or oxidizers.

Vapors may form explosive mixtures with air.

Vapor may travel a considerable distance to source of ignition.

Heating may cause expansion or decomposition leading to violent rupture of containers.

On combustion, may emit toxic fumes of carbon monoxide (CO).

6. Accidental release measures

Personal precautions:

Use proper personal protective equipment as indicated in Section 8. Keep unnecessary personnel away to safe areas. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid breathing vapors, mist, or gas, Ensure adequate ventilation.

Methods and Materials for Containment and Clean Up:

Absorb spill with inert material, (e.g. dry sand or earth), then place into a chemical waste container. Clean up spills immediately, using the appropriate protective equipment. Scoop up with a non-sparking tool, then place into a suitable container for disposal. Remove all sources of ignition. Collect residues in a flammable waste container.

Personal precautions:

Avoid eye contact. Determine whether to evacuate or isolate the area according to your local emergency plan. Caution, spill site may be slippery. Increase ventilation. Evacuate all unprotected personnel. Use full protective clothing and equipment to minimize exposure.

Environmental precautions:

Prevent run off into drains and waterways. Discharge into the environment must be avoided. Dispose of waste according to Federal, E.P.A., State and Local regulations.

7. Handling and storage

Precautions for Safe Handling:

Use a well ventilated area. Use spark-proof tools and explosion proof equipment. Avoid breathing in mists or vapor. Avoid skin and eye contact. Avoid ingestion and inhalation. Exercise good industrial hygiene practice. Wash thoroughly after handling, especially before eating, drinking, smoking or using toilet facilities. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous.. Do not pressurize, cut weld, braze, solder, drill, grind or expose empty container to heat, sparks or open flames.

Storage

Keep away from sources of ignition. Store in a cool, dry well ventilated area, away from incompatible substances, heat and out of direct sunlight. Store in a tightly closed container. Store in original containers in approved flame-proof area. Protect containers against physical damage and check regularly for leaks. Observe manufacturer's storing and handling recommendations.

8. Exposure controls/personal protection

Engineering controls

Use adequate ventilation or other engineering controls to keep airborne concentrations below recommended exposure limits. See OSHA Regulations in 29 CFR 1910151© for an eyewash facility and safety shower requirement.

Individual-protection measures, such as personal protective equipment

Eye/Face Protection	Use equipment for eye protection tested and approved under appropriate government stands such as NIOSH (US).
Skin and Body Protection	Wear appropriate protective gloves to prevent skin exposure. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
Clothing:	Wear appropriate protective clothing to prevent skin exposure
Respirators	Follow the OSHA respirator regulations found in 29 CFR 1910.134. Use a NIOSH/MSHA approved respirator if exposure limits are exceeded or if irritation n or other symptoms are experienced.

Human Exposure Characterization:

Based on our recommended product application and personal protection equipment, the potential human exposure is:
Low

9. Physical and chemical properties
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Physical state	Liquid
Color	Colorless liquid
Odor	Alcohol-like odor
Melting Point	-88.5 ⁰ C
Flash point	12 ⁰ C
Evaporation rate	2.83 (BuAc=1)
pH	N/A
Initial boiling point or range	80 ⁰ C (5-95%)
Vapor Pressure	45.4 mmHg at 25 ⁰ C
Flammability (solids, gas)	No data
Upper/lower flammability/explosive limit	12.7/2.3 (%)
Solubility	Miscible
Vapor density	2.1 (air=1)
Specific gravity	0.785 at 20 ⁰ C
Viscosity	2.1 cp

10. Stability reactivity

Stability	Stable under ordinary conditions
Hazardous polymerization	No data available
Conditions to avoid	All ignition sources (heat, sparks or flames)
Materials to avoid	Strong oxidizers, acetaldehyde, acids, chlorine, ethylene oxide, hydrogen-palladium

	combination, hydrogen peroxide-sulfur acid combination, potassium tert-butoxide, hypochlorous acid, isocyanates, nitroform, phosgene, aluminum, oleum and perchloric acid
Hazardous decomposition Products:	Carbon monoxide, carbon dioxide

11. Toxicological information

Accute and chronic effects

Acute toxicity:

Oral: LD50=4, 396 mg/kg

Eye/skin: LD50=12,870 mg/kg

Inhalation: LC50=72.7mg/L/4h

Skin corrosion/irritation: Not irritating

Serious eye damage/ eye irritation: (Cat.2) Moderately irritating

Respiratory sensitization: No data available

Skin sensitization: Not sensitizing

Carcinogenicity: IARC Group 3, ACGIH A4

12. Ecological information

Aquatic/terrestrial toxicity:

-LC50(96hr)=6,550mg/L(Pimephales promelas, Fish)

Persistence and biodegradation:

-95% biodegradation after 21 day

-Log Kow=0.05(estimated)

Bioaccumulation:

-BCF=1(estimated)

Mobility in soil:

-Koc=25(estimated)

Other hazardous information:

-Daphnia magna NOEC=1mg/L (growth rate/16d)

13. Disposal considerations

Waste disposal:

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a license waste contactor. 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 local authority requirements. Avoid dispersal of spilled material and runoff and contract with soil, waterways, drains and sewers. Dispose of container and unused contents in accordance with federal, state and local environmental control regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. Transport information

DOT Classification	UN1219	Isopropanol (Isopropyl Alcohol)	3	II
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***PG: Packing group**

Special safety response for transportation or transportation measure:

- Emergency measures in case of fire: F-E
- Emergency measures in the effluent: S-D

15. Regulatory information

CALIFORNIA PROPOSITION 65:

Substances listed under California Proposition 65 are not intentionally added or expected to be present in this product.

16. Other information

<u>HMIS</u>	Health Hazards	Flammability	Reactivity	Personal Protection
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Person(s) handling this product should be informed of the recommended safety precautions and should have access this information. Exposures should be evaluated so that appropriate handling practices and training programs can be established to insure safe workplace operations.

Disclaimer

The information provided in the Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and in not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet