SAFETY DATA SHEET

1. Identification of the Substance and of the Company

Revised: August 21, 2023

Product Name: Isopropyl Alcohol (Isopropanol) 99.8% USP

WC Code: 09-030-01

Product Use: Cleaning/washing agents, Solvents

Company
WINTERSUN CHEMICAL
1250 E. Belmont St.
Ontario, CA 91761
Call: 909-930-1688

Information / Emergency Telephone
PERS (Professional Emergency Resource Services)
Domestic Shipments and to Canada: 1-800-633-8253
International Shipments: 1-801-629-0667

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2. Hazard Identification

GHS Classification
Flammable liquids (Category 2), H225
Eye irritation (Category 2A), H319
Specific target organ toxicity - single exposure (Category 3), Central nervous system, H336

GHS Label elements
Pictogram

Signal word: Danger

Hazard statement(s)
H225 Highly flammable liquid and vapour.
H305 May be fatal if swallowed and enters airways
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness

Precautionary statements
Prevention
P210 Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting/.../equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

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

Response
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Call a POISON CENTER or doctor/physician you feel unwell.
P331 DO NOT induce vomiting.
P337+P313 If eye irritation persists: Get medical advice/attention
P370+P378 In case of fire: Use ... for extinction.

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

Disposal
P501 Dispose of contents/container to (in accordance with local/regional/ national/ international regulations.)

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3. Composition/ Information on Ingredients

Common Name: Propan-2-ol
CAS No: 67-63-0
Appearance: Clear / Colorless Liquid
Concentration: 100%

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4. First-Aid Measures

Eye Contact
Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical attention if irritation occurs.

Skin Contact
Remove any contaminated clothing. Wipe off excess from skin. Wash skin with soap and flush with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists.

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.

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5. Fire Fighting Measures

Fire-Fighting Equipment/ Instructions
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 vapour 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 from chemical product: (Ex: hazardous combustion products)
Liquid and vapour are flammable.
Severe fire hazard when exposed to heat, flame and/or oxidisers.
Vapors may form explosive mixtures with air.
Vapour 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).

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6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures
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 cleaning 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 nonsparking tool, then place into a suitable container for disposal. Remove all sources of ignition. Collect residues in a flammable waste container.

Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

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7. Handling and Storage

Personal Precautions
- Wash thoroughly after handling.
- Use only in a well ventilated area..
- Use spark-proof tools and explosion proof equipment.
- Empty containers retain product residue, (liquid and/or vapor), and can be dangerous.
- Avoid contact with eyes, skin, and clothing.
- Avoid ingestion and inhalation.
- Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers 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.
- 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.

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8. Exposure Controls / Personal Protection

Exposure Limits
Regulatory in KOREA: TWA: 200 ppm, 480 mg/m3; STEL: 400 ppm, 980 mg/m3
ACGIH: TWA: 200 ppm; STEL: 400 ppm

Engineering Controls
Use adequate ventilation or other engineering controls to keep airborne concentrations below recommended exposure limits. See **OSHA Regulations state in 29 CFR 1910.151 (c**) for an eyewash facility and safety shower requirement.

Personal Protective Equipment
Eyes: Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Skin: 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 or other symptoms are experienced.

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9. Physical and Chemical Properties

Appearance: Clear Colorless liquid
Odor: Alcohol-like odor
Threshold of odor: No data available
pH: Not applicable
Melting point: -89.5℃
Initial boiling point or range: 82.3℃
Flash point: 8-18℃
Evaporation rate: No data available
Flammability (solids, gas): Not applicable
Upper/ lower flammability/ explosive limit: 2% – 13%
Vapor pressure: 60.2 mmHg at 25℃
Solubility: Miscible
Vapor density: 2.1 (air = 1)
Specific gravity: 0.78509 at 25℃
n-octanol/ water partition coefficient: 0.05 at 25℃
Auto ignition temperature: 39℃
Degradation temperature: No data available
Viscosity: 2.038mPa.s at 25℃
M.W: 60.095

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10. Stability and Reactivity

Stability: Stable under ordinary conditions
Reactivity: This material may be sensitive to peroxide formation.
Conditions to avoid: All ignition sources (heat, sparks or flames)
Incompatibilities with other materials: Strong oxidizers, acetaldehyde, acids, chlorine, ethylene oxide, hydrogen-palladium combination, hydrogen peroxide-sulfuric acid combination, potassium tert-butoxide, hypochlorous acid, isocyanates, nitroform, phosgene, aluminum, oleum and perchloric acid.
Hazardous decomposition products: Carbon monoxide, carbon dioxide.
Hazardous polymerization: No data available

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11. Toxicological Information

Acute and chronic effects
Acute toxicity:
Oral: LD50=4,396 mg/kg
Eye/Skin: LD50=12,870 mg/kg
Inhalation (Vapor): LC50> 10000 ppm/ 6h

Skin corrosion/ irritation:
Not irritating (Rabbit)

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

Respiratory sensitization:
No data available

Skin sensitization:
Not sensitizing (Guinea pig)

Carcinogenicity:
IARC Group 3

Germ cell mutagenicity:
In vivo
- Mouse: Negative (Micronucleus assay, OECD TG 474, GLP)

In vitro
- Salmonella typhimurium: Negative (Ames test, OECD TG 471, Metabolic activation: with and without)
- Chinese hamster Ovary Cell : Negative (Mammalian cell gene mutation assay, OECD TG 476, GLP)

Reproductive toxicity:
- Severe malformation in the F1 generation associated with exposure was not observed. (Rat, OECD TG 415, GLP)

Specific target organ toxicity (single exposure)
- Prostration, severe failure of muscular coordination, reduced arousal, slow or unnatural breathing, hypothermia and loss of reflexes are observed in group exposed in the concentration of 100ppm.(Rat, OECD TG 403, GLP)

Specific target organ toxicity (repeated exposure) :
- There is no damage due to exposure to backbone and peripheral nervous system of rats. (Rat, OECD TG 413, GLP)

Aspiration hazard: (Cat. 1)
- Not classified.

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12. Ecological Information

Aquatic toxicity:

Fish: LC50= 10000 mg/L (Pimephales promelas, OECD TG 203, GLP, 96h)
Crustacean: LC50> 10000 mg/L (Daphnia magna, OECD TG 202, GLP, 24h)

Persistence and degradation: log Kow= 0.05 (Calculated),
BOD=86%(14d, OECD TG 301 F, GLP)
Bioaccumulative potential: BCF= 3(Calculated)
Mobility in soil: Koc= 1.5(Calculated)
Other adverse effects: No data available

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13. Disposal Information

Waste Disposal

Keep out of sewers and waterways. Dispose of container and unused contents in accordance with federal, state and local environmental control regulations.

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14. Transport Information

US DOT
UN/NA: 1219
Proper Shipping Name: Isopropanol (Isopropyl Alcohol)
Hazard Class: 3
Packing Group: II

IMDG/ IATA
UN/NA: 1219
Proper Shipping Name: Isopropanol (Isopropyl Alcohol)
Hazard Class: 3
Packing Group: II
Marine pollutant: Not listed

Special safety response for transportation or transportation measure:
- Emergency measures in case of fire : F-E
- Emergency measures in the effluent : S-D

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15. Regulatory Information

California Prop 65
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm**.**

Occupational Safety and Health Act in Korea:
- Work environment monitoring substance(measurement period:6month)
- Substance for administration
- Special medical examination substance(examination period:12month)
- Exposure standard established

Chemicals Control Act in Korea
Not applicable

Safety Control of Dangerous Substances Act in Korea
Class 4 alcohol 400ℓ

Wastes Control Act in Korea
Designated waste

Other regulations in KOREA and Abroad regulations
- **Other regulation (Domestic):**
  - Persistent Organic Pollutants (POPs) Control Act: Not applicable
- **National regulations:**
  - U.S.A. management information(OSHA regulation): Not applicable
  - U.S.A. management information(CERCLA regulation): Not applicable
  - U.S.A. management information(EPCRA 302 regulation): Not applicable
  - U.S.A. management information(EPCRA 304 regulation): Not applicable
  - U.S.A. management information(EPCRA 313 regulation): Not applicable
  - U.S.A. management information(Rotterdam Convention on Substances): Not applicable
  - U.S.A. management information(Stockholm Convention on Substances): Not applicable
  - U.S.A. management information(Mont- real Protocol on Substances): Not applicable
  - EU Classification (Classification): F; R11 Xi; R36 R67
  - EU Classification (Risk Phrases): R11, R36, R67
  - EU Classification (Safety Phrases): S2, S7, S16, S24, S25, S26

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16. Other Information

NFPA Grade: Health 1, Flammability 3, Reactivity 0

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