

SAFETY DATA SHEET

1. Identification

Product identifier Long Range Indicator
Product code R-1003U
Recommended use Use as directed by manufacturer for purposes directly related to water testing.
Recommended restrictions None known

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Anderson Chemical Company
Address 325 South Davis Avenue
Litchfield, MN 55355
United States
Telephone (320) 639-2477 Monday–Friday, 8:00 a.m.–4:30 p.m.
Website www.accomn.com
E-mail lmt@accomn.com
Emergency phone number (800) 424-9300

2. Hazard(s) identification

Physical hazards Flammable liquids Category 2
Health hazards Carcinogenicity Category 1B
Eye damage/irritation Category 2A
Germ cell mutagenicity Category 2
Specific target organ toxicity, single exposure Category 3 narcotic effects
Specific target organ toxicity, single exposure Category 3 respiratory tract irritation
Environmental hazards Not currently regulated by OSHA; refer to section 12 of the SDS for additional information.

Label elements



Signal word Danger
Hazard statement Highly flammable liquid and vapor. May cause cancer. Causes serious eye irritation. Suspected of causing genetic defects. May cause respiratory irritation. May cause drowsiness or dizziness.

Precautionary statement

Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames.–No smoking. Keep container tightly closed. Ground or bond container and receiving equipment. Use explosion-proof electrical/ventilating equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves/eye protection/face protection.

Response IF EXPOSED OR CONCERNED: Get medical advice/attention.
IF ON SKIN (OR HAIR): Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a physician or poison control center if you feel unwell.
IF EYE IRRITATION PERSISTS: Get medical advice/attention.
IN CASE OF FIRE: Use alcohol resistant foam, carbon dioxide, dry chemical, water fog, water spray to extinguish. Sand or earth can be used for small fires only.

Storage Store locked up. Store in a well-ventilated place. Keep cool. Keep container tightly closed.
Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified None
Supplemental information None

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Deionized water	Dihydrogen oxide	7732-18-5	20–30
Isopropanol	Dimethyl carbinol; 2-Propanol; Isopropyl alcohol	67-63-0	70–80
Phenolphthalein	3,3-Bis(4-hydroxyphenyl)phthalide	77-09-8	0.01–0.1

4. First-aid measures

Inhalation Move to fresh air. Give oxygen or artificial respiration if needed. Get medical attention immediately.

Skin contact Immediately flush skin with running water for at least 20 minutes. Immediately take off all contaminated clothing. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.

Eye contact Immediately flush eyes with plenty of water for at least 20 minutes. Remove contact lenses if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.

Ingestion Call a physician or poison control center immediately. Rinse mouth. Never give anything by mouth to a person who is unconscious or is having convulsions. Do NOT induce vomiting unless directed by physician. If vomiting occurs, keep head low so that stomach content does not get into the lungs.

Most important symptoms/effects, acute and delayed
Direct skin contact may cause slight or mild transient irritation. Symptoms may include redness, edema, drying, and cracking of the skin.
Direct contact with concentrated solutions may be harmful to the eyes and may cause severe damage including blindness. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.
Inhalation of mists can cause respiratory irritation. Symptoms may include coughing and breathing difficulties. May cause drowsiness or dizziness. Symptoms may include pain, headache, nausea, vomiting, dizziness, drowsiness, and other central nervous system problems.
Ingestion may cause gastrointestinal irritation, nausea, vomiting, diarrhea, as well as depression of the central nervous system.
Possible germ cell hazard. May cause heritable genetic damage, based on animal data.
Possible cancer hazard. May cause cancer, based on animal data.

Indication of immediate medical attention and special treatment needed
Provide general supportive measures and treat symptomatically.
This product is a CNS depressant.

General information
Ensure medical personnel are aware of the material(s) involved and take precautions to protect themselves.

5. Firefighting measures

Suitable extinguishing media Alcohol-resistant foam. Carbon dioxide. Dry chemical powder. Water fog. Sand or earth may be used for small fires only.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can be electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential static discharge, use proper bonding and grounding procedures. During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Firefighting equipment/instructions

Firefighters should wear full protective gear. Evacuate the area promptly. Fight fire from upwind to avoid exposure to combustion products. Cool containers/tanks with water spray. Do not get water inside container. Move containers from fire area if it can be done without risk. Prevent fire-extinguishing water from contaminating surface water or the ground water system.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards

Flammable liquid and vapor. This material may be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, or mechanical/electrical equipment). Vapors are heavier than air and may spread along floors. Vapors may travel considerable distance to a source of ignition and flash back.

Hazardous combustion products

Carbon oxides. Other irritating fumes and smoke.

6. Accidental release measures

Personal precautions, protective equipment, and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during cleanup. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protective equipment, refer to section 8 of the SDS.

Methods and materials for containment and cleaning up

Ventilate the contaminated area. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools.

Large Spills: Dike the spilled material where this is possible. Stop leak if it can be done without risk. Absorb spillage to prevent material damage. Absorb in vermiculite, dry sand or earth, and place into containers. Prevent entry into waterways, sewer, basements, or confined areas. Following product recovery, flush area with water.

Small Spills: Absorb spillage with noncombustible, absorbent material. Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for reuse. For waste disposal, refer to section 13 of the SDS. Contaminated absorbent material may pose the same hazards as the spilled product.

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Environmental precautions

Avoid discharge into drains, watercourses, or onto the ground.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Vapors may form explosive mixtures with air. Keep away from sources of ignition. NO SMOKING. Do not handle, store, or open near an open flame, sources of heat or sources of ignition. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Provide adequate ventilation. Wear appropriate personal protective equipment. For personal protective equipment, refer to section 8 of the SDS. Keep away from incompatibles. Observe good industrial hygiene practices. Label containers appropriately.

Conditions for safe storage, including any incompatibilities

Store locked up. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (refer to section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

U.S. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Isopropanol (CAS 67-63-0)	PEL	980 mg/m ³	Not applicable
		400 ppm	Not applicable

U.S. ACGIH Threshold Limit Values

Components	Type	Value	Form
Isopropanol (CAS 67-63-0)	STEL	400 ppm	Not applicable
	TWA	200 ppm	Not applicable

U.S. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Isopropanol (CAS 67-63-0)	STEL	1225 mg/m ³	Not applicable
		500 ppm	Not applicable
	TWA	980 mg/m ³	Not applicable
		400 ppm	Not applicable

Biological limit values**U.S. ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
Isopropanol (CAS 67-63-0)	40 mg/L	Acetone	Urine	Not available

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eyewash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Wear safety glasses with side shields (or goggles) and a face shield. Provide an emergency eyewash fountain and quick-drench shower in the immediate work area.

Skin protection**Hand protection**

Wear appropriate chemical-resistant gloves. Advice should be sought from glove suppliers.

Other

Wear appropriate chemical-resistant clothing.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. Use a NIOSH approved respirator if there is a risk of exposure to dust/fumes at levels exceeding the exposure limits. Advice should be sought from respiratory protection suppliers.

Thermal hazards

When necessary, wear appropriate thermal protective clothing.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking and/or smoking. Routinely wash work clothing and protective equipment to remove contamination.

9. Physical and chemical properties**Appearance****Physical state**

Liquid

Form

Liquid

Color

Dark green

Odor

Alcohol

Odor threshold

Odorless

pH

Not available

Melting point/freezing point

Not available

Initial boiling point and boiling range

190°F (87.8°C)

Flash point

66°F (18.9°C) Open cup

Evaporation rate

Not available

Flammability (solid, gas)

Flammable

Upper/lower flammability or explosive limits**Flammability limit, lower (%)**

Not applicable

Flammability limit, upper (%)

Not applicable

Explosive limit, lower (%)	3.3%
Explosive limit, upper (%)	18.9%
Vapor pressure	33 mm Hg
Vapor density	2
Relative density	0.97 g/cm ³
Solubility(ies)	
Solubility (water)	Soluble in all proportions
Partition coefficient (n-octanol/water)	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Other information	
Explosive properties	Not applicable
Oxidizing properties	Not applicable
Percent volatile	99%
Specific gravity	0.97

10. Stability and reactivity

Reactivity	This product is stable and nonreactive under normal conditions of use, storage, and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use
Conditions to avoid	Heat, sparks, open flames, and other ignition sources. Temperatures exceeding the flash point. Direct sunlight. Contact with incompatible materials. Do not use in areas without adequate ventilation.
Incompatible materials	Combustible materials. Reducing agents.
Hazardous decomposition products	None known. For hazardous combustion products, refer to section 5 of the SDS.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause drowsiness and dizziness. May cause irritation to the respiratory system.
Skin contact	May cause slight or mild transient irritation
Eye contact	May cause severe irritation
Ingestion	May cause irritation, nausea, vomiting, and diarrhea
Most important symptoms/effects, acute and delayed	<p>Direct skin contact may cause slight or mild transient irritation. Symptoms may include redness, edema, drying, and cracking of the skin.</p> <p>Direct contact with concentrated solutions may be harmful to the eyes and may cause severe damage, including blindness. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.</p> <p>Inhalation of mists can cause respiratory irritation. Symptoms may include coughing and breathing difficulties. May cause drowsiness or dizziness. Symptoms may include pain, headache, nausea, vomiting, dizziness, drowsiness, and other central nervous system problems.</p> <p>Ingestion may cause gastrointestinal irritation, nausea, vomiting, diarrhea, as well as depression of the central nervous system.</p> <p>Possible germ cell hazard. May cause heritable genetic damage, based on animal data.</p> <p>Possible cancer hazard. May cause cancer, based on animal data.</p>
Acute toxicity	This product is not classified as an acute toxicity hazard. See below for individual ingredient acute toxicity data.

Components	Species	Test Results
Isopropanol (CAS 67-63-0)		
Acute		
<i>Dermal</i>		
LD ₅₀	Rabbit	12890 mg/kg
<i>Inhalation</i>		
LC ₅₀	Rat	17000 ppm, 4 hours (vapor)
<i>Oral</i>		
LD ₅₀	Rat	4720 mg/kg
Deionized water (CAS 7732-18-5)		
Acute		
<i>Dermal</i>		
LD ₅₀	Rabbit	Not available
<i>Inhalation</i>		
LC ₅₀	Rat	Not available
<i>Oral</i>		
LD ₅₀	Rat	>89840 mg/kg
Skin corrosion/irritation	May cause slight or mild transient irritation	
Serious eye damage/eye irritation	May cause severe irritation	
Respiratory sensitization	Not expected to be a respiratory sensitizer	
Skin sensitization	Not expected to be a skin sensitizer	
Germ cell mutagenicity	May cause genetic defects	
Carcinogenicity	May cause cancer	
IARC Monographs. Overall Evaluation of Carcinogenicity		
Phenolphthalein (CAS 77-09-8)	2B Possibly carcinogenic to humans	
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1096)		
Not regulated		
U.S. National Toxicology Program (NTP) Report on Carcinogens		
Phenolphthalein (CAS 77-09-8)	Reasonably anticipated to be a human carcinogen	
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.	
Specific target organ toxicity, single exposure	May cause drowsiness or dizziness. May cause respiratory irritation.	
Specific target organ toxicity, repeated exposure	Not classified as a specific target organ toxicity-repeated exposure	
Aspiration toxicity	Not expected to be an aspiration hazard	
Chronic effects	Frequent or prolonged contact may dry the skin, leading to discomfort and dermatitis. Frequent or prolonged inhalation of fumes or vapors may cause chronic lung conditions such as bronchitis. Frequent or prolonged overexposure may affect the kidneys.	

12. Ecological information

Ecotoxicity Very toxic to aquatic life

Components	Species	Test Results
Isopropanol (CAS 67-63-0) – Aquatic		
Acute		
<i>Crustacea</i>		
EC ₅₀	Water flea (<i>Daphnia magna</i>)	1400 mg/L, 48 hours
LC ₅₀	Fathead minnow (<i>Pimephales promelas</i>)	9640 mg/L, 96 hours

Chronic

Crustacea

NOEC

Water flea (*Daphnia magna*)

30 mg/L, 21 days

Persistence and degradability Not available**Bioaccumulative potential** Not available**Partition coefficient n-octanol / water (log K_{ow})**

Isopropanol 0.05

(CAS 67-63-0)

Bioconcentration factor (BCF)

Isopropanol 1

(CAS 67-63-0)

Mobility in soil Not available**Other adverse effects** No other adverse environmental effects (e.g., ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.**13. Disposal considerations****Disposal instructions** Collect and reclaim or dispose of in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.**Local disposal regulations** Dispose of in accordance with all applicable regulations.**Hazardous waste code** The waste code should be assigned in discussion with the user, the producer, and the waste disposal company.**Waste from residues/unused products** Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (refer to Disposal instructions).**Contaminated packaging** Empty containers should be taken to an approved waste-handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.**14. Transportation information****DOT**

UN number UN1219
UN proper shipping name Isopropanol solution
Transport hazard class(es)
Class 3
Subsidiary risk Not listed
Label(s) 3
Packing group II
Special precautions for user Read safety instructions, SDS, and emergency procedures before handling.
Special provisions IB2, T4, TP1
Packaging exceptions 150
Packaging, non-bulk 202
Packaging, bulk 242

IATA

UN number UN1219
UN proper shipping name Isopropanol solution
Transport hazard class(es)
Class 3
Subsidiary risk Not listed
Packing group II
Environmental hazards No
ERG code 3L
Special precautions for user Read safety instructions, SDS, and emergency procedures before handling.
Other information
Passenger and cargo aircraft Allowed
Cargo aircraft only Allowed

IMDG

UN number UN1219
UN proper shipping name Isopropanol solution
Transport hazard class(es)
Class 3

Subsidiary risk Not listed
Packing group II
Environmental hazards
Marine pollutant No
EmS F-E, S-D
Special precautions for user Read safety instructions, SDS, and emergency procedures before handling.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code This substance/mixture is not intended to be transported in bulk.
DOT



IATA; IMDG



15. Regulatory information

U.S. federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

All components are on the U.S. EPA TSCA Inventory list.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated

CERCLA Hazardous Substance (40 CFR 302.4)

Isopropanol (CAS 67-63-0)

SARA 304 Emergency Release Notification

Not regulated

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1096)

Not regulated

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate hazard – yes
 Delayed hazard – yes
 Fire hazard – yes
 Pressure hazard – no
 Reactivity hazard – no

SARA 302 Extremely Hazardous Substance

Not regulated

SARA 311/312 Hazardous Chemical

Not regulated

SARA 313 (TRI reporting)

Chemical name	CAS number	% by weight
Isopropanol	67-63-0	70–80
Phenolphthalein	77-09-8	0.01–0.1

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs)

Not regulated

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated

Safe Drinking Water Act (SDWA)

Not regulated

U.S. state regulations

California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not regulated

Massachusetts Right-to-Know Act

Isopropanol (CAS 67-63-0)

New Jersey Worker and Community Right-to-Know Act

Isopropanol (CAS 67-63-0)

Phenolphthalein (CAS 77-09-8)

Pennsylvania Worker and Community Right-to-Know Act

Isopropanol (CAS 67-63-0)

Rhode Island Right-to-Know Act

Isopropanol (CAS 67-63-0)

Phenolphthalein (CAS 77-09-8)

California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): WARNING: This product contains a chemical known to the State of California to cause cancer.

U.S. - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Phenolphthalein Listed: May 15, 1998

(CAS 77-09-8)

International inventories

Country(ies) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	yes
Canada	Domestic Substances List (DSL)	yes
Canada	Non-Domestic Substances List (NDSL)	no
China	Inventory of Existing Chemical Substances Produced or Imported in China (IECSC)	yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	yes
Europe	European List of Notified Chemical Substances (ELINCS)	no
Japan	Existing and New Chemical Substances (ENCS)	no
Korea	Existing Chemicals List (ECL)	yes
New Zealand	New Zealand Inventory of Chemicals (NZIoC)	yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA)	yes

*A "yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(ies).

A "no" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(ies).

16. Other information, including date of preparation or last revision

List of abbreviations

ACGIH: American Conference of Governmental Industrial Hygienists
AICS: Australian Inventory of Chemical Substances
CAA: Clean Air Act
CAS: Chemical Abstract Services
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act
CFR: Code of Federal Regulations
CSA: Canadian Standards Association
DEA: Drug Enforcement Agency
DOT: Department of Transportation

DSL: Domestic Substances List
 EC: effective concentration
 ECL: Existing Chemicals List
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 ENCS: Existing and New Chemical Substances
 EPA: Environmental Protection Agency
 HAP: hazardous air pollutants
 HMIS: Hazardous Materials Identification System
 HNOC: hazards not otherwise classified
 HPA: Hazardous Products Act
 HSDB: Hazardous Substances Data Bank
 IARC: International Agency for Research on Cancer
 IATA: International Air Transport Association
 IBC Code: International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk
 ICAO: International Civil Aviation Organization
 IECSC: Inventory of Existing Chemical Substances Produced or Imported in China
 IMDG: International Maritime Dangerous Goods
 IUCLID: International Uniform Chemical Information Database
 LC: lethal concentration
 LD: lethal dose
 MARPOL: marine pollution
 MSHA: Mine Safety and Health Administration
 NDSL: Non-Domestic Substances List
 NFPA: National Fire Protection Association
 NIOSH: National Institute of Occupational Safety and Health
 NOEC: no observable effect concentration
 NTP: National Toxicology Program
 NZIoC: New Zealand Inventory of Chemicals
 OECD: Organisation for Economic Co-operation and Development
 OEL: occupational exposure limits
 OSHA: Occupational Safety and Health Administration
 PEL: permissible exposure limits
 PICCS: Philippine Inventory of Chemicals and Chemical Substances
 PPE: personal protective equipment
 RCRA: Resource Conservation and Recovery Act
 Act RQ: reportable quantity
 RTECS: Registry of Toxic Effects of Chemical Substances
 RTK: right to know
 SARA: Superfund Amendments and Reauthorization Act
 SDS: Safety Data Sheet
 SDWA: Safe Drinking Water Act
 STEL: short-term exposure limit
 TLV: threshold limit values
 TSCA: Toxic Substances Control Act
 TWA: time-weighted average
 VOC: volatile organic compounds
 WEL: workplace exposure limit

Disclaimer

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