



Section 01 - Identification

Product Identifier	Concrete Retardant – Vertical
Other Means of Identification	None
Product Use and Restrictions on Use	A reddish surface retardant for use on a vertically placed concrete.
Initial Supplier Identifier	Advance Chemicals Ltd. 1500 Quebec Avenue Saskatoon, SK. Canada S7K 1V7
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Section 02 - Hazard Identification

GHS-Classification

Serious Eye Damage/Irritation	Category 2
STOT-Single Exposure	Category 3

Physical Hazards

Flammable Liquid	Category 3
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Warning

Hazards Statements

H319 – Causes serious eye irritation.
H336 – May cause drowsiness or dizziness.
H226 – Flammable liquid and vapour.

Pictograms



Precautionary Statements

P403 + P235 – Store in a well-ventilated place. Keep cool.
P210 – Keep away from heat, sparks, open flames, and hot surfaces. — No smoking.
P233 – Keep container tightly closed.
P405 – Store locked up.
P240 – Ground/bond container and receiving equipment.

P241 – Use explosion-proof electrical, ventilating, lighting, and equipment.
 P242 – Use only non-sparking tools.
 P243 – Take precautionary measures against static discharge.
 P370 + P378 – In case of fire: Use carbon dioxide, dry chemical powder, appropriate foam, water spray or fog for extinction.
 P261 – Avoid breathing fumes, mist, vapours, or spray.
 P271 – Use only outdoors or in a well-ventilated area.
 P304 + P340 – IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P312 – Call a POISON CENTER or doctor/physician if you feel unwell.
 P280 – Wear protective gloves, protective clothing, eye protection, and face protection.
 P303 + P361 + P353 – IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337 + P313 – If eye irritation persists: Get medical advice/attention.
 P501 – Dispose of contents/container in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

Section 03 - Composition / Information on Ingredients

Chemical Name	CAS Number	Weight %	Unique Identifiers
Isopropyl Alcohol	67-63-0	<10%	
Water and/or ingredients not classified as hazardous under the Hazardous Products Regulations		≥ 90%	

Section 04 - First Aid Measures

Inhalation	Remove victim to fresh air. Give artificial respiration only if breathing has stopped. If breathing is difficult, give oxygen. Seek medical attention.
Skin Contact / Absorption	Removed contaminated clothing. Rinse skin with lukewarm, gently flowing water. If irritation persists, repeat flushing and seek medical attention. Completely decontaminate clothings, shoes and leather goods before reuse or discard.
Eye Contact	Immediately flush eye(s) with lukewarm, gently flowing water for at least 30 minutes, while forcibly holding the eyelid(s) open to ensure complete irrigation of the eye tissue. If a contact lens is present, remove only if easy to do so. If irritation persists, seek medical attention.
Ingestion	NEVER give anything by mouth if victim is rapidly losing consciousness, is unconscious or convulsing. Have victim rinse mouth thoroughly with water. DO NOT INDUCE VOMITING. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Have victim rinse mouth with water again. Seek immediate medical attention.
Additional Information	This chemical is flammable. Take proper precautions to ensure your own safety before assisting others.

Section 05 - Fire Fighting Measures

Suitable Extinguishing Media	Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog. Water may be effective for cooling, but may not be effective for extinguishing a fire as it may not cool isopropanol below its flash point. Firefighting foams, such as multipurpose alcohol-resistant foams, are recommended for most flammable liquid fires.
Unsuitable Extinguishing Media	Not Available
Specific Hazards Arising From the Chemical	During a fire, irritating/toxic gases, such as carbon monoxide and carbon dioxide, and other toxic and irritating gases, smoke and fumes may be generated. The vapour can accumulate in confined spaces, resulting in a toxicity and flammability hazard. Closed containers may rupture violently and suddenly release large amounts of product when exposed to fire or excessive heat for a sufficient period of time.

Special Protective Equipment and Precautions for Fire-Fighters Wear NIOSH-approved self-contained breathing apparatus and protective gear.

Further Information Isopropanol can readily form explosive mixtures with air.

Section 06 - Accidental Release Measures

Personal Precautions / Protective Equipment / Emergency Procedures Wear appropriate personal protective equipment. Ventilate area. Only enter area with PPE. Stop or reduce leak if safe to do so. Flush with water to remove any residue.

Environmental Precautions Prevent material from entering sewers, waterways or confined spaces.

Methods and Materials for Containment and Cleaning Up Keep materials which can burn away from spilled material.
SMALL SPILLS: Soak up spill with absorbent material which does not react with spilled chemical. Put material in suitable, covered, labelled containers. Flush area with water.
LARGE SPILLS: Contact fire and emergency services and supplier for advice. Contain spill with earth, sand, or absorbent material which does not react with spilled material. Remove liquid by explosion-proof pumps or vacuum equipment. Place in suitable, covered, labelled containers.
Contaminated absorbent material may pose the same hazards as the spilled product.

Section 07 - Handling and Storage

Precautions for Safe Handling This material is a FLAMMABLE liquid and an EYE IRRITANT. Use proper equipment for lifting and transporting all containers. Use sensible industrial hygiene and housekeeping practices. Wash thoroughly after handling. Avoid all situations that could lead to harmful exposure.

Conditions for Safe Storage Store in a cool, well-ventilated area, out of direct sunlight and away from heat and ignition sources. Keep storage area clear of burnable materials. Lighted cigarettes, matches, or any other ignition sources should not be allowed around indoor or outdoor storage areas.

Incompatibilities Strong oxidizing agents and strong acids.

Section 08 - Exposure Controls and Personal Protection

Exposure Limit(s)

Component	Regulation	Type of Listing	Value
Isopropanol	ACGIH	TLV-TWA	200ppm
	ACGIH	TLV-STEL	400ppm
	OSHA	PEL-TWA	400ppm
	OSHA	PEL-STEL	500ppm

Engineering Control(s)

Ventilation Requirements Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions must be provided in accordance with all fire codes and regulatory requirements. Supply sufficient replacement air to make up for air removed by exhaust systems.

Other Emergency shower and eyewash must be available and tested in accordance with regulations and be in close proximity.

Protective Equipment

Eyes/Face Chemical safety goggles and/or face shield should be worn while product is being handled. Contact lenses should not be worn while product is being handled as they may contribute to severe eye damage.

Hand Protection	Impervious gloves of chemically resistant material (rubber or PVC) should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.
Skin and Body Protection	RECOMMENDED (resistance to breakthrough longer than 8 hours): Butyl rubber, neoprene rubber, nitrile rubber, Viton(R), Viton butyl rubber, Barrier (PE/PA/PE), Silver Shield/4H(R) (polyethylene/ethylene vinyl alcohol), Tychem (R) CPF3, Tychem F(R), Tychem(R) Responder(R).
Respiratory Protection	<p>NIOSH/OSHA RECOMMENDATIONS FOR ISOPROPYL ALCOHOL CONCENTRATIONS IN AIR:</p> <p>UP TO 2000ppm: SAR operated in a continuous-flow mode; or full-face piece chemical cartridge respirator with organic vapour cartridge(s); or gas mask with organic vapour canister; or powered air-purifying respirator with organic vapour cartridge(s); or full-face piece SCBA; or full-face piece SAR.</p> <p>EMERGENCY OR PLANNED ENTRY INTO UNKNOWN CONCENTRATIONS OR IDLH CONDITIONS: Positive pressure, full-face piece SCBA; or positive pressure, full-face piece SAR with an auxiliary positive pressure SCBA.</p> <p>ESCAPE: Gas mask with organic vapour canister; or escape-type SCBA.</p>
Thermal Hazards	Not Available

Section 09 - Physical and Chemical Properties

Appearance

Physical State	Liquid
Colour	Clear, red
Odour	Sweet, blended odour
Odour Threshold	Not Available

Property

pH	Not Available
Melting Point/Freezing Point	Not Available
Initial Boiling Point and Boiling Range	Not Available
Flash Point	30-41°C (87.8-105°F)
Evaporation Rate	Not Available
Flammability	Flammable liquid
Upper Flammable Limit	12%
Lower Flammable Limit	2%
Vapour Pressure (mm Hg, 20°C)	Not Available
Vapour Density (Air=1)	Not Available
Relative Density	Not Available
Solubility(ies)	Soluble in water

Partition Coefficient: n-octanol/water	Not Available
Auto-ignition Temperature	399°C
Decomposition Temperature	Not Available
Viscosity	Not Available
Explosive Properties	Can readily form explosive mixtures with air.
Specific Gravity (Water=1)	1.08
% Volatiles by Volume	Not Available
Formula	Mixture
Molecular Weight	Not Available

Section 10 - Stability and Reactivity

Reactivity	Peroxidation reactions may occur in anhydrous secondary alcohols, such as 2-propanol, when stored for long periods in contact with air or oxygen. A number of explosions have been reported, which occurred during distillation of 2-propanol following prolonged storage (more than 4 years). The rate of peroxidation was greatest under the following conditions: anhydrous solvent (no water), contact with air or oxygen in a partially full container, exposure to sunlight and the presence of trace amounts of contaminants such as 2-butanone which accelerated the reaction.
Stability	Normally stable.
Possibility of Hazardous Reactions	Hazardous polymerization will not occur.
Conditions to Avoid	Open flames, sparks, electrostatic discharge, heat and other ignition sources, light, prolonged storage.
Incompatible Materials	Strong oxidizing agents and strong acids.
Hazardous Decomposition Products	Unstable peroxides.

Section 11 - Toxicological Information

Acute Toxicity Estimate

Component	Oral LD₅₀	Dermal LD₅₀	Inhalation LC₅₀
Concrete Retardant-Vertical	40 g/kg	142 g/kg	462 mg/L

This product has been classified in accordance with the Hazardous Products Regulations using ATE formula documented in the GHS standard.

Chronic Toxicity – Carcinogenicity

Component	IARC
Concrete Retardant-Vertical	None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.

Skin Corrosion/Irritation	May cause moderate irritation.
Ingestion	Non-toxic.
Inhalation	Exposure to vapours may cause central nervous system depression with symptoms such as headache, nausea, dizziness, vomiting and incoordination. Vapours may also cause respiratory irritation.
Serious Eye Damage/Irritation	Isopropanol is a moderate to severe eye irritant.
Respiratory or Skin Sensitization	Not expected to be a skin sensitizer.
Germ Cell Mutagenicity	Isopropanol is not considered to be mutagenic.
Reproductive Toxicity	Isopropanol is not considered a reproductive toxin.
STOT-Single Exposure	Inhalation may cause dizziness, drowsiness and respiratory irritation.
STOT-Repeated Exposure	Not Available
Aspiration Hazard	Aspiration can result in severe, life-threatening lung damage.
Synergistic Materials	Isopropanol has enhanced the toxicity of carbon tetrachloride, 1,1,2-trichloroethane, chloroform, trichloroethylene, and dimethylnitrosamine in rodents.

Section 12 – Ecological Information

Ecotoxicity

Component	Toxicity to Algae	Toxicity to Fish	Toxicity to Daphnia and Other Aquatic Invertebrates
Isopropanol	EC ₅₀ (Green algae, 24hr): 1000mg/L	LC ₅₀ (Gambusia affinis, 24hr): >1400mg/L	LC ₅₀ (Daphnia magna, 24hr):10000mg/L
Biodegradability	Not Available		
Bioaccumulation	Not Available		
Mobility	Not Available		
Other Adverse Effects	Not Available		

Section 13 – Disposal Considerations

Waste From Residues/Unused Products	Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.
Contaminated Packaging	Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

Section 14 – Transport Information

UN Number	Not Regulated
UN Proper Shipping Name	Not Regulated
Transport Hazard Class(es)	Not Regulated
Packaging Group	Not Regulated
Environmental Hazards	Not listed as a marine pollutant under Canadian TDG Regulations, schedule III.
Special Precautions	Not Available
Transport in Bulk	Not Available
<u>TDG</u>	
Other	Secure containers (full and/or empty) with suitable hold down devices during shipment and ensure all caps, valves, or closures are secured in the closed position.

TDG PRODUCT CLASSIFICATION: This product has been classified on the preparation date specified at section 14 of this MSDS / SDS, for transportation in accordance with the requirements of part 2 of the Transportation of Dangerous Goods Regulations. If applicable, testing and/or published test data regarding the classification of this product are listed in the references at section 16 of this MSDS / SDS.

Section 15 – Regulatory Information

NOTE: THE PRODUCT LISTED ON THIS SDS HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CANADIAN CONTROLLED PRODUCTS REGULATIONS. THIS SDS CONTAINS ALL INFORMATION REQUIRED BY THOSE REGULATIONS.

Section 16 – Other Information

Preparation Date November 6, 2015

Note: The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations.

Attention: Receiver of the chemical goods / SDS coordinator

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If you have any questions or concerns please call our customer service center.

References:

- 1) CHEMINFO
- 2) eChemPortal
- 3) TOXNET
- 4) Transportation of Dangerous Goods Canada
- 5) HSDB
- 6) ECHA

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