

DA-2I Alcohol

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SECTION 1. IDENTIFICATION

Product identifier used on the label

: **DA-2I Alcohol**

Other means of identification : Not available.

Recommended use of the chemical and restrictions on use

: Industrial solvent.
Use pattern: Professional Use Only
Restriction on use: None known

Chemical family : Mixture

Name, address, and telephone number
of the supplier:

Comet Chemical Company Ltd.

3463 Thomas Street
Innisfill, ON, Canada
L9S 3W4

Supplier's Telephone # : (705) 436-5580

24 Hr. Emergency Tel # : GFL Environmental - 1-888-772-2543

Name, address, and telephone number of
the manufacturer:

Refer to supplier

SECTION 2. HAZARDS IDENTIFICATION

Classification of the chemical

Clear colourless liquid. Alcohol odour.

Most important hazards: Causes serious eye irritation. Highly flammable liquid and vapour. May cause drowsiness or dizziness.

This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Hazard classification:

Flammable liquids - Category 2

Serious eye damage/eye irritation - Category 2A

Specific target organ toxicity, single exposure - Category 3 (narcotic effects)

Label elements

Hazard pictogram(s)



Signal Word

DANGER!

Hazard statement(s)

Highly flammable liquid and vapour!
Causes serious eye irritation.
May cause drowsiness or dizziness.

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Precautionary statement(s)

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No Smoking
 Keep container tightly closed.
 Ground and bond container and receiving equipment.
 Use explosion-proof electrical and ventilating equipment.
 Use non-sparking tools.
 Take action to prevent static discharges.
 Avoid breathing mist or vapours.
 Wash thoroughly after handling.
 Use only outdoors or in a well-ventilated area.
 Wear protective gloves and eye/face protection.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
 Continue rinsing.
 If eye irritation persists: get medical advice/attention.
 If inhaled: Remove person to fresh air and keep comfortable for breathing.
 Call a POISON CENTER or doctor/physician if you feel unwell.
 In case of fire: Use water fog, dry chemical, CO₂ or 'alcohol' foam to extinguish.

Store in a well-ventilated place. Keep cool.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards

Other hazards which do not result in classification: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

<u>Chemical name</u>	<u>Common name and synonyms</u>	<u>CAS #</u>	<u>Concentration (% by weight)</u>
Isopropyl alcohol	Isopropyl alcohol 2-Propanol	67-63-0	5.0-10.0
Ethyl alcohol	Ethyl alcohol Ethyl hydrate	64-17-5	80.0-100.0
Ethyl acetate	Ethyl ethanoate Acetoxyethane	141-78-6	1.0-5.0

The exact concentrations of the above listed chemicals are being withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

Description of first aid measures

- Ingestion* : Call a physician or poison control centre immediately. Do not induce vomiting. If vomiting occurs spontaneously, keep victim's head lowered (forward) to reduce the risk of aspiration. Never give anything by mouth to an unconscious person.
- Inhalation* : If inhaled, move to fresh air. If breathing is difficult, give oxygen by qualified medical personnel only. If breathing has stopped, give artificial respiration. Get medical attention if symptoms persist.
- Skin contact* : Wash off with soap and plenty of water. If irritation or symptoms develop, seek medical attention. Wash contaminated clothing before re-use.
- Eye contact* : Immediately flush eyes with running water for at least 15 minutes. Obtain medical attention if irritation persists.

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Most important symptoms and effects, both acute and delayed

- : Causes serious eye irritation. Symptoms may include redness, pain, tearing and conjunctivitis. Direct skin contact may cause slight or mild, transient irritation. May cause central nervous system effects. Symptoms may include pain, headache, nausea, vomiting, dizziness, drowsiness and other central nervous system effects. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Indication of any immediate medical attention and special treatment needed

- : Treat symptomatically. This product is a CNS depressant.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

- : Use water fog or fine spray, foams, carbon dioxide or dry chemical.

Unsuitable extinguishing media

- : Do not use a solid water stream as it may scatter and spread fire.

Special hazards arising from the substance or mixture / Conditions of flammability

- : Highly flammable liquid and vapour. Vapors may travel considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. Static discharge, impact, friction, and heat may ignite exposed chemical material.

Flammability classification (OSHA 29 CFR 1910.106)

- : Flammable liquids - Category 2

Hazardous combustion products

- : Carbon oxides.

Special protective equipment and precautions for firefighters

Protective equipment for fire-fighters

- : Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Do not enter without wearing specialized protective equipment suitable for the situation. Firefighter's normal protective clothing (Bunker Gear) will not provide adequate protection. A full-body encapsulating chemical protective suit with positive pressure self-contained breathing apparatus (NIOSH approved or equivalent) may be necessary.

Special fire-fighting procedures

- : Fight fires from a safe distance. Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

- : Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. Individuals involved in the cleanup must wear appropriate personal protective equipment. For personal protection see section 8.

Environmental precautions : Do not allow material to contaminate ground water system. For large spills, dike the area to prevent spreading.

Methods and material for containment and cleaning up

- : Ventilate area of release. Stop spill or leak at source if safely possible. Dike for water control. Use only non-sparking tools and equipment in the clean-up process. Contain and absorb spilled liquid with inert, non-combustible absorbent material (e.g. sand, vermiculite), then place material into open, unsealed containers. For waste disposal, see Section 13 of the SDS.



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Special spill response procedures

- : In Canada: For 24-hour emergency assistance, call: 1-613-996-6666 (CANUTEC).
- US CERCLA Reportable quantity (RQ): Ethyl acetate (5000 lbs / 2270 kg)

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

- : Use only in well-ventilated areas. Wear suitable protective equipment during handling. Avoid breathing vapours. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Keep away from heat, sparks and open flames. Use only non-sparking tools. Avoid contact with incompatible materials. Keep containers tightly closed when not in use. Use explosion-proof electrical and ventilating equipment. Take precautionary measures against static discharge. Bond and ground transfer containers and equipment to avoid static accumulation.

- Conditions for safe storage** : Store in a cool, dry, well-ventilated area. Store away from incompatible materials. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. No smoking in the area. Store locked up.

- Incompatible materials** : Strong oxidizing agents; Strong acids.; Alkali metals; Aluminium.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<u>Chemical Name</u>	<u>ACGIH TLV</u>		<u>OSHA PEL</u>	
	<u>TWA</u>	<u>STEL</u>	<u>PEL</u>	<u>STEL</u>
Isopropyl alcohol	200 ppm	400 ppm	400 ppm (980 mg/m ³)	N/Av
Ethyl alcohol	N/Av	1000 ppm	1000 ppm (1900 mg/m ³)	N/Av
Ethyl acetate	400 ppm	N/Av	400 ppm (1400 mg/m ³)	N/Av

Exposure controls

Ventilation and engineering measures

- : Ensure adequate ventilation, especially in confined areas. Use general or local exhaust ventilation to maintain air concentrations below recommended exposure limits. Use explosion-proof electrical and ventilating equipment.

Respiratory protection

- : Respiratory protection is required if the concentrations exceed the TLV. NIOSH-approved respirators are recommended. Advice should be sought from respiratory protection specialists. Respirators should be selected based on the form and concentration of contaminants in air, and in accordance with OSHA (29 CFR 1910.134) or CSA Z94.4-02.

Skin protection

- : Wear protective gloves. Advice should be sought from glove suppliers.

Eye / face protection

- : Wear eye/face protection. Wear safety glasses with side shields (or goggles).

Other protective equipment

- : An eyewash station and safety shower should be made available in the immediate working area. Depending on conditions of use, an impervious apron should be worn. Other equipment may be required depending on workplace standards.

General hygiene considerations

- : Avoid breathing vapour or mist. Avoid contact with skin, eyes and clothing. Do not ingest. Do not eat, drink or smoke when using this product. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Remove soiled clothing and wash it thoroughly before reuse.

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	: Liquid
Colour	: Clear, colorless.
Odour	: Alcohol odour.
Odour threshold	: Not available.
pH	: N/Av
Melting Point/Freezing point	: Not available.
Initial boiling point and boiling range	: 78.8°C
Flash point	: 13°C
Flashpoint (Method)	: Tag closed cup
Evaporation rate (BuAe = 1)	: Not available.
Flammability	: Not applicable.
Lower explosion or flammability limit (% by vol.)	: Not available.
Upper explosion or flammability limit (% by vol.)	: Not available.
Oxidizing properties	: None.
Explosive properties	: Not explosive
Vapour pressure	: Not available.
Relative vapour density	: Not available.
Relative density / Specific gravity	: 0.7915
Solubility in water	: Soluble
Other solubility(ies)	: Not available.
Partition coefficient: n-octanol/water or Coefficient of water/oil distribution	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not applicable.
Viscosity	: Not available.
Particle characteristics	: Not applicable.
Volatiles (% by weight)	: 100%
Volatile organic Compounds (VOC's)	: N/Av
Absolute pressure of container	: N/Av
Flame projection length	: N/Av
Other physical/chemical comments	: None known or reported by the manufacturer.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Not normally reactive.
Chemical stability	: Stable under the recommended storage and handling conditions prescribed.
Possibility of hazardous reactions	: Hazardous polymerization will not occur.
Conditions to avoid	: Keep away from excessive heat, open flames, sparks and other possible sources of ignition. Avoid contact with incompatible materials. Do not use in areas without adequate ventilation. Avoid heat, open flames, sparks, static electricity and electrical equipment.

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Incompatible materials : Strong oxidizing agents; Strong acids; Strong alkalis
Hazardous decomposition products
 : None known, refer to hazardous combustion products in Section 5.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Routes of entry inhalation : YES

Routes of entry skin & eye : YES

Routes of entry Ingestion : YES

Routes of exposure skin absorption
 : NO

Potential Health Effects:

Signs and symptoms of short-term (acute) exposure

Sign and symptoms Inhalation

: May cause central nervous system effects. Symptoms may include pain, headache, nausea, vomiting, dizziness, drowsiness and other central nervous system effects.

Sign and symptoms ingestion

: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Sign and symptoms skin

: May cause mild skin irritation.

Sign and symptoms eyes

: Causes serious eye irritation. Symptoms may include stinging, tearing, redness, swelling and blurred vision.

Potential Chronic Health Effects

: Prolonged or repeated skin contact may cause drying and irritation. Prolonged overexposure may cause liver and kidney effects.

Mutagenicity

: Not expected to be mutagenic in humans.

Carcinogenicity

: No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.

Reproductive effects & Teratogenicity

: Not expected to have other reproductive effects.

Sensitization to material

: Not expected to be a skin or respiratory sensitizer.

Specific target organ effects

: This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015). May cause drowsiness or dizziness.

Medical conditions aggravated by overexposure

: Pre-existing skin, eye and respiratory disorders.

Synergistic materials

: None known or reported by the manufacturer.

Toxicological data

: There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data.

Chemical name	LC ₅₀ (4hr) inh. rat	LD ₅₀	
		(Oral, rat)	(Rabbit, dermal)
Isopropyl alcohol	17 000 ppm (41.8 mg/L) (vapour)	4720 mg/kg	12 890 mg/kg
Ethyl alcohol	> 32 380 ppm (61 mg/L) (vapour)	7060 mg/kg	> 15 800 mg/kg
Ethyl acetate	8000 - 16 000 ppm (28.8 - 57.7 mg/L) (vapour)	10 200 mg/kg	> 18 000 mg/kg

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Other important toxicological hazards

: None known or reported by the manufacturer.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity : Not expected to be harmful to aquatic organisms. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. See data for individual ingredient ecotoxicity data.

Ecotoxicity data:

<u>Ingredients</u>	CAS #	Toxicity to Fish		
		LC50 / 96h	NOEC / 21 day	M Factor
Isopropyl alcohol	67-63-0	9640 mg/L (Fathead minnow)	N/Av	None.
Ethyl alcohol	64-17-5	> 100 mg/L (Fathead minnow)	N/Av	None.
Ethyl acetate	141-78-6	> 100 mg/L	N/Av	None.

<u>Ingredients</u>	CAS #	Toxicity to Daphnia		
		EC50 / 48h	NOEC / 21 day	M Factor
Isopropyl alcohol	67-63-0	> 10 000 mg/L/24hr (Daphnia magna)	N/Av	None.
Ethyl alcohol	64-17-5	5012 mg/L (Daphnia magna)	N/Av	None.
Ethyl acetate	141-78-6	> 100 mg/L	2.4 mg/L	None.

<u>Ingredients</u>	CAS #	Toxicity to Algae		
		EC50 / 96h or 72h	NOEC / 96h or 72h	M Factor
Isopropyl alcohol	67-63-0	N/Av	N/Av	None.
Ethyl alcohol	64-17-5	1000 mg/L/96hr (Green algae)	N/Av	None.
Ethyl acetate	141-78-6	> 100 mg/L/72hr	N/Av	None.

Persistence and degradability

: Readily biodegradable.

Bioaccumulation potential

: No data is available on the product itself.

<u>Components</u>	<u>Partition coefficient n-octanol/water (log Kow)</u>	<u>Bioconcentration factor (BCF)</u>
Isopropyl alcohol (CAS 67-63-0)	0.05	1.0
Ethyl alcohol (CAS 64-17-5)	- 0.31	N/Av
Ethyl acetate (CAS 141-78-6)	0.73	30 (Fish)

Mobility in soil : No data is available on the product itself.

Other Adverse Environmental effects

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: No data is available on the product itself.

SECTION 13. DISPOSAL CONSIDERATIONS

- Handling for Disposal** : See Section 7 (Handling and Storage) for further details. Empty containers retain residue (liquid and/or vapour) and can be dangerous. Do not cut, weld, drill or grind on or near this container.
- Methods of Disposal** : Dispose in accordance with all applicable federal, state, provincial and local regulations.
- RCRA** : If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method.

SECTION 14. TRANSPORT INFORMATION

Regulatory Information	UN Number	UN proper shipping name	Transport hazard class(es)	Packing Group	Label
TDG	UN1170	ETHYL ALCOHOL SOLUTION	3	II	
TDG Additional information	May be shipped as LIMITED QUANTITY when transported in quantities no larger than 1 Litre, in packages not exceeding 30 kg gross mass.				
49CFR/DOT	UN1170	ETHANOL SOLUTION	3	II	
49CFR/DOT Additional information	May be shipped as LIMITED QUANTITY when transported in quantities no larger than 1 Litre, in packages not exceeding 30 kg gross mass.				
ICAO/IATA	UN1170	Ethyl alcohol solution	3	II	
ICAO/IATA Additional information	Refer to ICAO/IATA Packing Instruction				
IMDG	UN1170	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	3	II	
IMDG Additional information	Consult the IMDG regulations for exceptions.				

Special precautions for user : Keep away from heat, sparks and open flame - No smoking.

Environmental hazards : This product does not meet the criteria for an environmentally hazardous mixture, according to the IMDG Code. See ECOLOGICAL INFORMATION, Section 12.

SECTION 15 - REGULATORY INFORMATION

US Federal Information:

Components listed below are present on the following U.S. Federal chemical lists:



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<u>Ingredients</u>	CAS #	TSCA Inventory	CERCLA Reportable Quantity(RQ) (40 CFR 117.302):	SARA TITLE III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355:	SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical	
					Toxic Chemical	de Minimis Concentration
Isopropyl alcohol	67-63-0	Yes	None.	None.	Yes	No
Ethyl alcohol	64-17-5	Yes	None.	None.	No	No
Ethyl acetate	141-78-6	Yes	5000 lb/ 2270 kg	None.	No	No

SARA TITLE III: Sec. 311 and 312, SDS Requirements, 40 CFR 370 Hazard Classes: Fire Hazard; Immediate (Acute) health hazard

US State Right to Know Laws:

The following chemicals are specifically listed by individual States:

<u>Ingredients</u>	CAS #	California Proposition 65		State "Right to Know" Lists					
		Listed	Type of Toxicity	CA	MA	MN	NJ	PA	RI
Isopropyl alcohol	67-63-0	No	N/Ap	Yes	Yes	Yes	Yes	Yes	Yes
Ethyl alcohol	64-17-5	Yes	Cancer (in alcoholic beverages) Developmental (in alcoholic beverages)	Yes	Yes	Yes	Yes	Yes	Yes
Ethyl acetate	141-78-6	No	N/Ap	Yes	Yes	Yes	Yes	Yes	Yes

Canadian Information:

All ingredients are present on the DSL.

International Information:

Components listed below are present on the following International Inventory list:

<u>Ingredients</u>	CAS #	European EINECs	Australia AICS	Philippines PICCS	Japan ENCS	Korea KECI/KECL	China IECSC	NewZealand IOC
Isopropyl alcohol	67-63-0	200-661-7	Present	Present	(2)-207	KE-29363	Present	HSR001180
Ethyl alcohol	64-17-5	200-578-6	Present	Present	(2)-202	KE-13217	Present	HSR001144
Ethyl acetate	141-78-6	205-500-4	Present	Present	(2)-726	KE-00047	Present	HSR001041

SECTION 16. OTHER INFORMATION

Legend

- : ACGIH: American Conference of Governmental Industrial Hygienists
- CAS: Chemical Abstract Services
- CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
- CNS: Central Nervous System
- COC: Cleveland Open Cup
- CSA: Canadian Standards Association
- DOT: Department of Transportation

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IARC: International Agency for Research on Cancer
 LC: Lethal Concentration
 LD: Lethal Dose
 N/Ap: Not Applicable
 N/Av: Not Available
 NIOSH: National Institute of Occupational Safety and Health
 NTP: National Toxicology Program
 OSHA: Occupational Safety and Health Administration
 PEL: Permissible exposure limit
 SARA: Superfund Amendments and Reauthorization Act
 STEL: Short Term Exposure Limit
 TLV: Threshold Limit Values
 TWA: Time Weighted Average

References :

1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices
2. ECHA - European Chemical Agency
3. Canadian Centre for Occupational Health and Safety, CCInfoWeb databases
4. Safety Data Sheets from manufacturer.
5. US EPA Title III List of Lists
6. California Proposition 65 List
7. OECD - The Global Portal to Information on Chemical Substances - eChemPortal

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Revision Information

:

Other special considerations for handling

: Provide adequate information, instruction and training for operators.

<p>Prepared for: Comet Chemical Company Ltd. 3463 Thomas Street Innisfill, ON L9S 3W4 Information (M-F 8:00-5:00): 705-436-5580 www.cometchemical.com</p>	
<p>Prepared by: ICC The Compliance Center Inc. Telephone: (888) 442-9628 (U.S.); (888) 977-4834 (Canada) http://www.thecompliancecenter.com</p>	

DISCLAIMER

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