

Material Safety Data Sheet



DIGISAN AEROSOL FOAM HAND SANITIZER

Section 1. Chemical product and company identification

Trade name : DIGISAN AEROSOL FOAM HAND SANITIZER
Product use : Skin antiseptic
Supplier : Ecolab Co.
5105 Tomken Road
Mississauga ON L4W 2X5
1-800-352-5326
Code : 901103-01
Date of issue : 04-May-2006

EMERGENCY HEALTH INFORMATION: 1-800-328-0026
Outside United States and Canada CALL 1-651-222-5352 (in USA)

Section 2. Composition, information on ingredients

<u>Name</u>	<u>CAS number</u>	<u>% by weight</u>
ethanol	64-17-5	40 - 70
difluoroethane	75-37-6	1 - 5
isobutane	75-28-5	1 - 5

Section 3. Hazards identification

Physical state : Liquid. (Aerosol.)
Emergency overview : DANGER!
EXTREMELY FLAMMABLE LIQUID AND VAPOUR.
VAPOUR MAY CAUSE FLASH FIRE.
MAY CAUSE EYE IRRITATION.
CONTENTS UNDER PRESSURE.
Can cause central nervous system depression.
Avoid contact with eyes. Avoid all possible sources of ignition (spark or flame). Do not puncture, incinerate or store the container at temperatures above 49°C (120°F) or in direct sunlight. Keep away from heat and direct sunlight. Keep container closed. Use only with adequate ventilation.
Routes of entry : Skin contact, Eye contact, Inhalation, Ingestion
Potential acute health effects
Eyes : Moderately irritating to eyes.
Skin : Slightly irritating to the skin.
Inhalation : Slightly irritating to the respiratory system. High vapour concentrations can cause headaches, dizziness, drowsiness and nausea and may lead to unconsciousness.
Ingestion : May be harmful if swallowed.

See toxicological information (section 11)

Section 4. First-aid measures

Eye contact : In case of contact, immediately flush eyes with cool running water. Remove contact lenses and continue flushing with plenty of water for at least 15 minutes. Get medical attention if irritation persists.
Skin Contact : Get medical attention if symptoms appear. Wash clothing before reuse.
Inhalation : If inhaled, remove to fresh air.
Ingestion : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Section 5. Fire-fighting measures

Auto-ignition temperature	: Not available.
Flash point	: 12.7778 °C (Closed cup)
Flammable limits	
Upper:	Not available.
Lower:	Not available.
Products of combustion	: These products are halogenated compounds, hydrogen fluoride.
Fire-fighting media and instructions	: In case of fire, use water spray (fog), foam, dry chemical, or CO ₂ . Dyke liquid for later disposal. Extremely flammable liquid and vapour. Vapour may cause flash fire. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Risk of explosion of the product in the presence of mechanical impact: Not available.
	Risk of explosion of the product in the presence of static discharge: Not available.

Section 6. Accidental release measures

Personal Precautions	: Immediately contact emergency personnel. Eliminate all ignition sources. Keep unnecessary personnel away. Use suitable protective equipment. Do not touch or walk through spilt material.
Environmental precautions	: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.
Methods for cleaning up	: If emergency personnel are unavailable, contain spilt material. For small spills, add absorbent (soil may be used in the absence of other suitable materials) and use a non-sparking or explosion-proof means to transfer material to a sealable, appropriate container for disposal. For large spills, dyke spilt material or otherwise contain material to ensure runoff does not reach a waterway. Place spilt material in an appropriate container for disposal.

Section 7. Handling and storage

Handling	: Avoid contact with eyes. Keep container closed. Use only with adequate ventilation. Keep away from heat, sparks and flame. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Use explosion-proof electrical (ventilating, lighting and material handling) equipment.
Storage	: Keep out of the reach of children. Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame). Do not store above 20°C

Section 8. Exposure controls, personal protection

Engineering controls	: Good general ventilation should be sufficient to control airborne levels.
Personal protection	
Eyes	: Eye protection recommended.
Hands	: No protective equipment is needed under normal use conditions.
Skin	: No protective equipment is needed under normal use conditions.
Respiratory	: A respirator is not needed under normal and intended conditions of product use.
Name	Exposure limits
ethanol	ACGIH TLV (United States, 1/2005). TWA: 1880 mg/m ³ 8 hour(s). Form: All forms TWA: 1000 ppm 8 hour(s). Form: All forms
isobutane	ACGIH TLV (United States, 1/2005). TWA: 1000 ppm 8 hour(s). Form: All forms

Section 9. Physical and chemical properties

Physical state	: Liquid. (Aerosol.)
Colour	: White.
Odour	: Alcohol-like.
pH	: Not applicable.
Boiling/condensation point	: Not available.
Melting/freezing point	: Not available.
Specific gravity	: 0.871 (Water = 1)
Vapour pressure	: Not applicable.
Vapour density	: Not available.
Odour threshold	: Not available.
Evaporation rate	: Not available.
LogK _{ow}	: Not available.

Section 10. Stability and reactivity

Stability	: The product is stable.
Conditions of instability	: Not available.
Incompatibility with various substances	: Not available.
Hazardous Decomposition Products	: These products are halogenated compounds, hydrogen fluoride.

Section 11. Toxicological information

Potential acute health effects

Eyes	: Moderately irritating to eyes.
Skin	: Slightly irritating to the skin.
Inhalation	: Slightly irritating to the respiratory system. High vapour concentrations can cause headaches, dizziness, drowsiness and nausea and may lead to unconsciousness.
Ingestion	: May be harmful if swallowed.
Irritancy of Product	: Hazardous by WHMIS criteria.

Potential chronic health effects

Carcinogenic effects	: No known significant effects or critical hazards.
Mutagenic effects	: No known significant effects or critical hazards.
Teratogenic effects	: No known significant effects or critical hazards.
Reproductive effects	: No known significant effects or critical hazards.
Sensitization to Product	: No known significant effects or critical hazards.
Synergistic products (toxicologically)	: Not available.

Toxicity data

<u>Ingredient name</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
ethanol	LD50	7060 mg/kg	Oral	Rat
	LD50	6300 mg/kg	Oral	Rabbit
	LD50	3450 mg/kg	Oral	Mouse
	LDLo	1400 mg/kg	Oral	human
	LDLo	5500 mg/kg	Oral	Dog
difluoroethane	LDLo	>1500 mg/kg	Oral	Rat

Target organs : There is no known chronic effect after exposure to this product.

Section 12. Ecological information

Ecotoxicity data

<u>Ingredient name</u>	<u>Species</u>	<u>Period</u>	<u>Result</u>
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ethanol	Daphnia magna (EC50)	48 hour(s)	2 mg/l
	Daphnia magna (EC50)	48 hour(s)	9.3 mg/l
	Daphnia magna (EC50)	48 hour(s)	>100 mg/l
	Daphnia magna (LC50)	96 hour(s)	>100 mg/l
	Pimephales promelas (LC50)	96 hour(s)	>100 mg/l
	Oncorhynchus mykiss (LC50)	96 hour(s)	13000 mg/l

Products of degradation : These products are carbon oxides (CO, CO₂) and water, halogenated compounds.

Section 13. Disposal considerations

Waste disposal : The generation of waste should be avoided or minimised wherever possible. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. 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.

Consult your local or regional authorities.

Section 14. Transport information

Regulatory information	UN number	Proper shipping name	Class	Packing group	Additional information
TDG Classification	-	Consumer commodity	-	-	-

APPLIES ONLY DURING ROAD TRANSPORT

Any variation of the shipping description based on the packaging is not addressed.

Section 15. Regulatory information

WHMIS : Not a WHMIS controlled material.
DIN02248326

This product has been classified in accordance with the hazard criteria of the *Controlled Products Regulations* and the MSDS contains all the information required by the *Controlled Products Regulations*.

Section 16. Other information

Date of issue : 04-May-2006.
Responsible name : Regulatory Affairs
Date of previous issue : No previous validation.

Notice to reader

The above information is believed to be correct with respect to the formula used to manufacture the product in the country of origin. As data, standards, and regulations change, and conditions of use and handling are beyond our control, **NO WARRANTY, EXPRESS OR IMPLIED, IS MADE AS TO THE COMPLETENESS OR CONTINUING ACCURACY OF THIS INFORMATION.**