QUIKSAN
MSDS Preparation Date: 01/31/2013

MATERIAL SAFETY DATA SHEET

SECTION I - PRODUCT IDENTIFICATION

Product Name : **QUIKSAN**
Product Use : Hand Sanitizer
Chemical Family : Alcohol solution.

Supplier's name and address:
The Dodge Chemical Company (Canada) Ltd.
1265 Fewster Drive
Mississauga, Ontario, Canada
L4W 1A2
(905) 625 0311

Manufacturer's name and address:
Refer to Supplier

24 Hr. Emergency Tel # : (613) 996-6666 (CANUTEC)
WHMIS CLASS : B2, D2B

SECTION II - HAZARDOUS INGREDIENTS

Ingredients	CAS #	Wt.%	LC_{50}(4hr) (Rat, ihl.)	LD_{50} mg/kg (Oral, rat)	LD_{50} mg/kg (Rabbit, dermal)
Isopropanol	67-63-0	60.00 - 100.00	17,000 ppm	4710	12,870

SECTION III - PHYSICAL DATA

Physical state : Clear liquid.
Odour : Perfumed odour.
Appearance : Slightly viscous
Odour threshold : 43 ppm (detectable); 19 ppm (recognizable)
pH : N/Av
Boiling point : 70 - 72°C (158 - 162°F)
Specific gravity : 0.87 - 0.89
Melting/Freezing point : N/Av
Coefficient of water/oil distribution : N/Av
Vapour pressure (mmHg @ 20° C / 68° F) : 33
Solubility in water : Complete
Vapour density (Air = 1) : > 1
Evaporation rate (n-Butyl acetate = 1) : > 1
Volatiles (% by weight) : 99

SECTION IV - FIRE AND EXPLOSION DATA

Fire hazards/conditions of flammability
: Flammable liquid and vapour. Will ignite when exposed to heat, flame and other sources of ignition.
Flash point : 9 - 11°C (48 - 52°F)
Flash point Method : TCC
Auto-ignition temperature : N/Av
Lower flammable limit (% by vol.) : 2 (Isopropanol)
Upper flammable limit (% by vol.) : 12 (Isopropanol)
Means Of Extinction : Dry chemical, carbon dioxide and foam. Water may be ineffective on fire, but may be helpful in cooling unburned containers.
Explosion data: Sensitivity to mechanical impact / static discharge
: May be sensitive to static discharge. Not expected to be sensitive to mechanical impact.
Special fire-fighting procedures/equipment
: 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. Avoid spreading burning liquid with water spray used for cooling purposes.
Unusual Fire and Explosion Hazards

: Vapours are heavier than air and collect in confined and low-lying areas. Closed containers may build up pressure when exposed to heat and flame. Vapour can travel considerable distance and flashback to a source of ignition.

Hazardous combustion products

: Carbon oxides, unburned alcohol and other irritating fumes and smoke.

SECTION V - REACTIVITY DATA

Stability and reactivity : Stable at ambient temperatures and pressures. Hazardous polymerisation does not occur.

Conditions of reactivity : Keep away from excessive heat, open flames, sparks and other possible sources of ignition.

Incompatible materials : Strong oxidizing agents and acids.

Hazardous decomposition products

: None known, refer to hazardous combustion products in Section 4.

SECTION VI - TOXICOLOGICAL PROPERTIES

***** Routes of exposure and acute/chronic effects *****

Exposure Limits

Ingredients	ACGIH TLV		OSHA PEL	
	TWA	STEL	PEL	STEL
Isopropanol	200 ppm	400 ppm	400 ppm	N/Av

Routes of exposure : Skin contact; Skin Absorption; Eye contact; Ingestion; Inhalation.

Irritancy : Moderate to severe eye irritant. Mild skin irritant

Potential Acute Health Effects

Inhalation : Inhalation may cause respiratory irritation and central nervous system depression. Symptoms may include pain, headache, nausea, vomiting, dizziness, drowsiness and other central nervous system effects. May result in unconsciousness and possibly death.

Skin : May cause mild skin irritation.

Eyes : Causes moderate to severe irritation. Symptoms will include pain, redness and tearing.

Ingestion : Ingestion of large amounts may cause nausea, vomiting, diarrhea, as well as depression of the central nervous system. Ingestion may cause symptoms similar to inhalation. May be an aspiration hazard. Aspiration may occur during swallowing or vomiting, resulting in lung injury.

Effects of Chronic Exposure : Prolonged or repeated skin contact may cause drying and irritation. Liver and kidney injuries may occur.

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

Reproductive effects : Not expected to have other reproductive effects.

Teratogenicity : This product contains Isopropanol. Isopropanol is no longer considered a developmental toxin. Teratogenic / fetotoxic effects were observed in animals, however the effects were observed in the presence of maternal toxicity or at concentrations where maternal toxicity is expected to occur.

Mutagenicity : Not expected to be mutagenic in humans.

Sensitization to material : Not expected to be a skin or respiratory sensitizer.

Synergistic materials : N/Av

Medical Conditions Aggravated By Overexposure

: Pre-existing skin, eye, respiratory and central nervous system disorders.

SECTION VII - FIRST AID

Inhalation : Immediately remove person to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen by qualified medical personnel only. Seek immediate medical attention/advice. Provide supportive treatment, keeping victim warm and quiet.

Skin contact : Immediately flush with plenty of water, while removing contaminated clothing. 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. Seek immediate medical attention/advice.

Ingestion : Call a physician or Poison Control Centre immediately. Do NOT induce vomiting. Rinse mouth with water. Have victim drink one to two glasses of water. Guard against aspiration into lungs.

SECTION VIII - PREVENTIVE MEASURES

Spill response/cleanup : Individuals involved in the cleanup must wear appropriate personal protective equipment. Remove all sources of ignition. Ventilate area of release. Stop the spill at source if it is safe to do so. Contain and absorb spilled material with inert, non-combustible absorbent material, such as sand. Place absorbent material in a suitable, closed and labelled container for later disposal (see below). Ensure spilled product does not enter drains, sewers, waterways, or confined spaces. Notify the appropriate authorities as required.

Methods of Disposal : Handle according to recommendations listed below. Improper disposal can cause damage to the environment. Dispose of in accordance with federal, provincial and local hazardous waste laws.

***** PROTECTIVE EQUIPMENT *****

Ventilation and engineering measures : Natural or exhaust ventilation is required.

Respiratory protection : If the TLV is exceeded, a NIOSH/MSHA-approved respirator is advised. Advice should be sought from respiratory protection specialists.

Skin protection : None required under normal conditions. Advice should be sought from glove suppliers.

Eye / face protection : Chemical goggles are recommended when there is a potential for splashing.

Other protective equipment : An eyewash station and safety shower should be made available in the immediate working area. Other equipment may be required depending on workplace standards.

***** STORAGE & HANDLING *****

Safe Handling procedures : Flammable liquid and vapour. Wear chemically resistant protective equipment during handling. Use only in well-ventilated areas. Do not breathe vapours or spray mist. Avoid contact with eyes. Keep away from excessive heat, open flames, sparks and other possible sources of ignition. Keep away from oxidizing agents and incompatibles. Use caution when opening cap. Keep containers tightly closed when not in use. When using, rub hands until the liquid is absorbed and hands are dry (about 15 seconds).

Storage requirements : Store in a cool, dry, well-ventilated area. Store away from incompatibles and out of direct sunlight. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. No smoking in the area. Inspect periodically for damage or leaks.

Special Shipping Information

Regulatory Information	UN Number	Shipping Name	Class	Packing Group	Label
TDG	UN1219	ISOPROPANOL SOLUTION	3	II	
TDG Additional information	May be shipped as LIMITED QUANTITY when transported in containers no larger than 1.0 Litre, in packages not exceeding 30 kg gross mass. Under the TDGR, refer to Section 1.17 for additional exemption information, if shipping under this exemption.				

SECTION IX - PREPARATION INFORMATION

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Legend : ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstract Services
IARC: International Agency for Research on Cancer
Inh: Inhalation
MSHA: Mine Safety and Health Administration
N/Ap: not applicable
N/Av: not available
NTP
NIOSH: National Institute of Occupational Safety and Health
OSHA: Occupational Safety and Health Administration
PEL: Permissible exposure limit
STEL: Short Term Exposure Limit
TCC: Tagliabue Closed Cup
TDG: Canadian Transportation of Dangerous Goods Act & Regulations
TLV: Threshold Limit Values
TWA: Time Weighted Average
WHMIS: Workplace Hazardous Materials Identification System

References :
1. ACGIH, Threshold Limit Values and Biological Exposure Indices for 2007.
2. International Agency for Research on Cancer Monographs, searched 2008.
3. Canadian Centre for Occupational Health and Safety, CCInfoWeb databases, 2008 (Chempendium and RTECs).
4. Material Safety Data Sheet from manufacturer.

MSDS Preparation Date (mm/dd/yyyy)

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Prepared by:

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