

MATERIAL SAFETY DATA SHEET

Methylated Spirits

SECTION 1.

Identification of the Substance and Supplier

PRODUCTS APPLICABLE	Methylated Spirits 5L
PRODUCT USE	Solvent, glass cleaner, hard surface cleaner, fuel
SUPPLIER	Simms Jones Ltd, 217 Lichfield St, Christchurch
PHONE	(03) 366 5769
FAX	(03) 365 4727
E-MAIL	cleanser@simmsjones.co.nz
EMERGENCY CONTACT	Craig Keenan 027 291 6181

SECTION 2.

Hazards Identification

HAZARDS

Flammable liquids Category 2, Serious eye damage/eye irritation Category 2A

HAZARD STATEMENTS

Danger. Highly flammable liquid and vapour. Causes serious eye irritation.

PREVENTION STATEMENTS

Keep away from heat, sparks, open flames, and hot surfaces. No smoking. Keep container tightly closed. Read label before use. Use explosion-proof electrical equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves and eye/face protection. Wash hands thoroughly after handling.

RESPONSE STATEMENTS

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 attention.
IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water.

STORAGE STATEMENTS

Store in a well-ventilated place. Keep cool.

DISPOSAL STATEMENT

Triple rinse empty container before offering for recycling or disposal.

SECTION 3.

Composition and Information on Ingredients

INGREDIENT	PROPORTION	CAS NUMBER
Ethanol	98%	64-17-5
Methanol	2%	67-56-1

SECTION 4.

First Aid Measures

- 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 attention.
- IF ON SKIN (or hair):** Remove immediately all contaminated clothing. Rinse skin with water.

SECTION 5.

Fire-Fighting Measures

- EXTINGUISHING MEDIA** Foam, CO₂, dry chemical, or water fog
- COMBUSTION PRODUCTS** Carbon dioxide and water
- FIRE-FIGHTING PROCEDURES** Use breathing apparatus, firefighting gear, and rubber or PVC gloves

SECTION 6.

Accidental Release Measures

- EMERGENCY PROCEDURES** Remove all ignition sources
- ENVIRONMENTAL PRECAUTIONS** No special precautions required
- SPILL CONTROL** Ventilate area. Remove ignition sources. Wear protective equipment. Apply sand or inert absorbent material. Sweep up and dispose.

SECTION 7.

Handling and Storage

- HANDLING PRECAUTIONS**
Keep away from heat, sparks, open flames, and hot surfaces. No smoking. Keep container tightly closed. Read label before use. Use explosion-proof electrical equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves and eye/face protection. Wash hands thoroughly after handling.

- STORAGE**
Store locked up. Store in a well-ventilated place. Keep cool. Keep out of reach of children.

SECTION 8.

Exposure Controls/Personal Protection

EXPOSURE LIMITS	8 h TWA = 260 mg/m ³
ENGINEERING CONTROLS	Ensure ventilation is adequate
RESPIRATORY PROTECTION	Full-face-piece positive-pressure air-supplied respirator
PROTECTIVE GLOVES	Nitrile rubber or PVC
EYE PROTECTION	Splash-proof goggles or full-face-shield

SECTION 9.

Physical and Chemical Properties

APPEARANCE	Clear colourless or purple liquid
ODOUR	Mild alcohol
ODOUR THRESHOLD	Not Available
pH	Not Applicable
MELTING POINT/FREEZING POINT	-114°C
INITIAL BOILING POINT	78°C
FLASH POINT	14°C
FLAMMABILITY	Flammable
LOWER FLAMMABILITY LIMIT	3.3% by volume
UPPER FLAMMABILITY LIMIT	19% by volume
VAPOUR PRESSURE	5.95 kPa at 20°C
VAPOUR DENSITY	1.59
RELATIVE DENSITY	0.79
SOLUBILITY	Completely miscible with water
PARTITION CO-EFFICIENT: n-OCTANOL/WATER	log P _{ow} = -0.349 at 24°C
AUTO-IGNITION TEMPERATURE	363°C
DECOMPOSITION TEMPERATURE	427°C
KINEMATIC VISCOSITY	1.4x10 ⁻⁶ m ² /s

SECTION 10.

Stability and Reactivity

REACTIVITY	Reacts with strong oxidisers and peroxides
STORAGE CONDITIONS	Store locked up. Store in a well-ventilated place. Keep cool.
INCOMPATIBLE SUBSTANCES	Strong oxidisers, peroxides, and alkali metals
HAZARDOUS DECOMPOSITION PRODUCTS	Oxides of carbon

SECTION 11.

Toxicological Information

ACUTE TOXICITY	May cause blindness, coma, or death
SKIN CORROSION/IRRITATION	No skin irritation
SERIOUS EYE DAMAGE/IRRITATION	Causes serious eye irritation
RESPIRATORY OR SKIN SENSITISATION	No sensitisation
GERM CELL MUTAGENICITY	No data available
CARCINOGENICITY	Not carcinogenic
REPRODUCTIVE TOXICITY	No reproductive toxicity
SPECIFIC TARGET ORGAN TOXICITY	
-SINGLE EXPOSURE	No specific organ toxicity
-REPEATED EXPOSURE	No specific organ toxicity
ASPIRATION HAZARD	No aspiration hazard

TOXICITY

METHANOL

Acute inhalation of methanol vapour concentrations below 260 mg/m³ (200 ppm) or ingestion of up to 20 mg methanol/kg by healthy or moderately folate-deficient humans should not result in formate accumulation above endogenous levels.

Visual disturbances of several types (blurring, constriction of the visible field, changes in colour perception, and temporary or permanent blindness) have been reported in workers who experienced methanol air levels of about 1500 mg/m³ (1200 ppm) or more.

A widely used occupational exposure limit for methanol is 260 mg/m³ (200 ppm), which is designed to protect workers from any of the effects of methanol-induced formic acid metabolic acidosis and ocular and nervous system toxicity.

No other adverse effects have been reported in humans except minor skin and eye irritation at exposures well above 260 mg/m³ (200 ppm).

STUDY

Adult female crab-eating macaques (*Macaca fascicularis*) were exposed to one of four concentrations of methanol vapours (0, 200, 600, and 1800 ppm) for 2.5 hours each day during the following periods: (1) before breeding, (2) during breeding, and (3) during pregnancy. Adult blood methanol and formate concentrations were monitored. Pharmacokinetic studies assessed pregnancy-related changes and determined whether methanol disposition (which includes absorption, distribution, metabolism, and excretion) was altered as a result of repeated methanol exposures. The infants were examined at regular intervals during the first nine months of life to assess their growth and neurobehavioural development.

RESULT

The health of the adult monkeys prior to or during pregnancy was not affected. Single 2.5-hour exposures to methanol vapours caused short-term elevations in blood methanol concentrations in all groups. Peak blood methanol concentrations declined slightly over the first month and remained constant thereafter. Plasma formate concentrations remained at baseline levels in all groups. Pregnancy had no effect on methanol disposition. Serum folate concentrations were not affected by pregnancy or methanol exposure.

Most measures of reproductive performance, including menstrual cycles, conception rate, and live-birth delivery rate, were not affected. There was a decrease of about six to eight days in the duration of pregnancy compared to the control animals.

Infant growth and physical development for the first year of life were not affected. Two female offspring exposed in utero to 1800 ppm methanol experienced growth retardation, malnutrition, and gastroenteritis after one year of age.

Most of the measures used to test infant neurobehavioural development (neonatal behaviour, early reflex responses, infant gross motor development, spatial memory, and social behaviour) were not affected. There were two possible methanol-related effects, one on visually-directed reaching in male infants (a test of sensorimotor development), and one of novelty preference (a test of memory and cognitive function).

SOURCE: University of Washington

ETHANOL

CLASSIFICATION: Irritating to the eye

SPECIES: Rabbit

RESULT: Moderately irritating

SOURCE: BP Chemicals Ltd, London

SECTION 12.

Ecological Information

BIODEGRADABILITY	Rapidly Degradable
BIOACCUMULATIVE POTENTIAL	Not Bioaccumulative
MOBILITY IN SOIL	Not Determined

METHANOL ECOTOXICITY

STUDY: Mouse, LD₅₀
VALUE: 870 mg/kg
SOURCE: H&S: Methyl Alcohol 67-56-1

SECTION 13.

Disposal Considerations

DISPOSAL	Triple rinse empty container before offering for recycling or disposal.
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SECTION 14.

Transportation Information

UN NUMBER	1170
SHIPPING NAME	Ethanol Solution (Ethyl Alcohol Solution)
DANGEROUS GOODS CLASS	Flammable liquids Category 2
UN PACKING GROUP	PG II
ENVIRONMENTAL HAZARDS	Not Environmentally Hazardous
SPECIAL PRECAUTIONS	No special precautions required

SECTION 15.

Regulatory Information

HSNO APPROVAL NUMBER	HSR002553
GROUP STANDARD	Denatured Ethanol Group Standard 2017
SPECIAL REQUIREMENTS	Not Applicable

SECTION 16.

Other Information

Date Issued: 31-7-2018

ABBREVIATIONS

8 h TWA (Time-Weighted Average)

The time-weighted average airborne concentration of a substance when calculated over an eight-hour working day for a five-day working week.

LD₅₀ (Lethal Dose 50%)

The amount of a drug, antibody or toxicant that kills half of a population.

UN

United Nations

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Simms Jones Limited

217 Lichfield St, Christchurch 8011, New Zealand

PO Box 32054, Christchurch 8147, New Zealand

Phone +64 3 366 5769

Fax +64 3 365 4727

Freephone 0800 808 848

cleanser@simmsjones.co.nz

simmsjones.co.nz