

SAFETY DATA SHEET



Revision date: 24-Aug-2021

Revision Number 5

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product identifier

Product Name SODIUM METHOXIDE 30% SOLUTION IN METHANOL

Product Code(s) 000000050038

Other means of identification

UN number 1289

Recommended use of the chemical and restrictions on use

Recommended use Catalyst

Uses advised against No information available.

Details of the supplier of the safety data sheet

Supplier

Ixom Operations Pty Ltd (Incorporated in Australia)
NZBN: 9429041465226 Address: 166 Totara Street
Mt Maunganui South
New Zealand

Telephone Number: +64 9 368 2700

Facimile: +64 9 368 2710

For further information, please contact

Contact Point Product Safety Department

Emergency telephone number

Emergency Telephone 0 800 734 607 (ALL HOURS)

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the "Other Information" section at the end of this Data Sheet.

2. HAZARDS IDENTIFICATION

Classified as a Dangerous Good according to NZS 5433 Transport of Dangerous Goods on Land; DANGEROUS GOODS.

Classified as hazardous according to criteria in the Hazardous Substances (Hazard Classification) Notice 2020.

GHS Classification

SIGNAL WORD

Danger

Additives, Process Chemicals and Raw Materials (Flammable, Acutely Toxic, Corrosive) Group Standard 2020

Approval Number: HSR002501

Flammable liquids	Category 3
Acute toxicity - Oral	Category 3
Acute toxicity - Dermal	Category 3

Acute toxicity - Inhalation (Vapors)	Category 3
Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1
Reproductive toxicity	Category 2
Specific target organ toxicity (single exposure)	Category 1

Label elements**Hazard statements**

H226 - Flammable liquid and vapor
H301 - Toxic if swallowed
H311 - Toxic in contact with skin
H331 - Toxic if inhaled
H314 - Causes severe skin burns and eye damage
H361 - Suspected of damaging fertility or the unborn child
H370 - Causes damage to organs

Precautionary Statements - Prevention

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
Keep container tightly closed
Ground/bond container and receiving equipment
Use explosion-proof electrical, ventilating, lighting equipment
Use only non-sparking tools
Take precautionary measures against static discharge
Do not breathe fume, gas, mist, vapours, spray
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Use only outdoors or in a well-ventilated area
Wear protective gloves / protective clothing / eye protection / face protection

Precautionary Statements - Response

Specific treatment (see First aid on this SDS)
IF exposed: Call a POISON CENTER or doctor/physician
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTER or doctor/physician
IF ON SKIN: Wash with plenty of soap and water
Call a POISON CENTER or doctor/physician if you feel unwell
Remove/Take off immediately all contaminated clothing
Wash contaminated clothing before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/physician
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Rinse mouth
Do NOT induce vomiting
In case of fire: Use extinguishing media as outlined in Section 5 of this Safety Data Sheet for extinction.

Precautionary Statements - Storage

Store locked up
Store in a well-ventilated place. Keep container tightly closed
Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable

Other hazards which do not result in classification

Reacts violently with water

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Chemical name	CAS No.	Weight-%
Methanol (methyl alcohol)	67-56-1	70%
Methanol, sodium salt	124-41-4	30%

4. FIRST AID MEASURES

Description of first aid measures

General advice	Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.
Emergency telephone number	Poisons Information Center, New Zealand: 0800 764 766 Poisons Information Center, Australia: 13 11 26
Inhalation	Remove to fresh air. If breathing is difficult, (trained personnel should) give oxygen. If breathing has stopped, give artificial respiration. Get medical attention immediately.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	Wash skin with soap and water. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediate medical attention is required.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Call a physician immediately.

Most important symptoms and effects, both acute and delayed

Symptoms	Irritation/Corrosion. May cause redness and tearing of the eyes. Coughing and/ or wheezing. Difficulty in breathing. Vapors may cause drowsiness and dizziness.
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Indication of any immediate medical attention and special treatment needed

Note to physicians	Treat symptomatically. Metabolic acidosis may occur up to 12 hours after ingestion. Administration of ethanol reduces toxic effects by blocking the metabolic route to formaldehyde/formic acid production in the body.
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5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media

Suitable Extinguishing Media	Alcohol resistant foam is the preferred firefighting medium but, if it is not available, fine water spray or water fog can be used.
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Unsuitable extinguishing media	High volume water jet.
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Specific hazards arising from the chemical

Specific hazards arising from the chemical Flammable. Keep product and empty container away from heat and sources of ignition. May form explosive mixtures with air. Most vapors are heavier than air. Vapors may spread along ground and collect in low or confined areas (sewers, basements, tanks). Pay attention to flashback.

Hazardous combustion products Carbon oxides. Formaldehyde.

Special protective actions for fire-fighters

Special protective equipment for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

Hazchem code •2WE

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Do not breathe vapor or mist. Avoid contact with skin, eyes, and clothing. Do not touch or walk through spilled material. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Ensure adequate ventilation. Evacuate personnel to safe areas. Remove all sources of ignition. Take precautionary measures against static discharges. Use personal protective equipment as required. Wash thoroughly after handling.

For emergency responders Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Use non-sparking tools.

Precautions to prevent secondary hazards

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Do not breathe vapor or mist. Avoid contact with skin, eyes, and clothing. Ensure adequate ventilation. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers. Use personal protection equipment. Wash thoroughly after handling. Not to be used by pregnant workers and workers who have recently given birth or who are breastfeeding.

Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place. Store away from foodstuffs and sources of heat or ignition. Keep container closed when not in use.
Incompatible materials	Acids. Caustics. Water. Oxidizing agents. Reactive metals. Isocyanates. Chromic anhydride.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits No value assigned for this specific material by the New Zealand Workplace Health & Safety Authority. However, Workplace Exposure Standard(s) for constituent(s):

Methyl alcohol (Methanol): WES-TWA 200 ppm, 262 mg/m³; WES-STEL 250 ppm, 328 mg/m³, skin, bio - BEI 15mg/L (in urine)

As published by the New Zealand Workplace Health & Safety Authority.

WES - TWA (Workplace Exposure Standard - Time Weighted Average) - The eight-hour, time-weighted average exposure standard is designed to protect the worker from the effects of long-term exposure.

WES - STEL (Workplace Exposure Standard - Short Term Exposure Limits) - The 15 minute average exposure standard. Applies to any 15 minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both short-term and eight-hour, time-weighted average exposures should be determined.

'Skin' Notice - absorption through the skin may be a significant source of exposure. The exposure standard is invalidated if such contact should occur.

'bio' - Biological Exposure Index.

These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Appropriate engineering controls

Engineering controls Ensure that eyewash stations and safety showers are close to the workstation location. Apply technical measures to comply with the occupational exposure limits.

If in the handling and application of this material, safe exposure levels could be exceeded, the use of engineering controls such as local exhaust ventilation must be considered and the results documented. If achieving safe exposure levels does not require engineering controls, then a detailed and documented risk assessment using the relevant Personal Protective Equipment (PPE) (refer to PPE section below) as a basis must be carried out to determine the minimum PPE requirements.

Individual protection measures, such as personal protective equipment

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, CHEMICAL GOGGLES, RUBBER BOOTS, AIR MASK , GLOVES (Long), APRON.



Eye/face protection	Tight sealing safety goggles.
Hand protection	Impervious gloves.
Skin and body protection	Antistatic boots. Wear fire/flame resistant/retardant clothing. Overalls.
Respiratory protection	If determined by a risk assessment an inhalation risk exists, wear an organic vapour/particulate respirator or an air supplied mask meeting the requirements of AS/NZS 1715 and AS/NZS 1716.
Environmental exposure controls	No information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	No information available.
Color	Colourless or Yellowish
Odor	Methanol
Odor threshold	No information available.

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	ca. 11	None known
Melting point / freezing point	1-5°C	
Boiling point / boiling range	93°C	
Flash point	32°C	
Evaporation rate	No data available	
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	26.5%	
Lower flammability or explosive limits	5.5%	
Vapor pressure	50 mmHg @20°C	
Vapor density	1.1 for methanol (air=1)	
Relative density	0.969	
Water solubility	Hydrolysed by water	
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	455°C	
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	

Other information

10. STABILITY AND REACTIVITY

Reactivity

Reactivity Reacts violently with water.

Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge Yes.

Possibility of hazardous reactions

Possibility of hazardous reactions Heating causes rise in pressure with risk of bursting.

Conditions to avoid

Conditions to avoid Heat, flames and sparks. Contact with foodstuffs.

Incompatible materials

Incompatible materials Acids. Caustics. Water. Oxidizing agents. Reactive metals. Isocyanates. Chromic anhydride.

Hazardous decomposition products

Hazardous decomposition products Carbon oxides. Formaldehyde.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Information on likely routes of exposure

Product Information Methanol is more toxic to humans and primates than to most experimental animals, due to differences in how it is metabolized. Non-primates do not appear to experience the acidosis or vision effects observed in humans and primates.

No adverse health effects expected if the chemical is handled in accordance with this Safety Data Sheet and the chemical label. Symptoms or effects that may arise if the chemical is mishandled and overexposure occurs are:

Inhalation May cause central nervous system depression with nausea, headache, dizziness, vomiting, and incoordination. In confined or poorly ventilated areas, vapors can readily accumulate and can cause unconsciousness and death. Toxic if inhaled.

Eye contact Causes serious eye damage.

Skin contact Contact causes severe skin irritation and possible burns. May be absorbed through the skin in harmful amounts. Toxic in contact with skin.

Ingestion Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. Ingestion of larger amounts may cause defects to the central nervous system (e.g. dizziness, headache). MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED. Toxic if swallowed.

Symptoms Irritation/Corrosion. May cause redness and tearing of the eyes. Coughing and/ or

wheezing. Difficulty in breathing. Vapors may cause drowsiness and dizziness.

Acute toxicity

Numerical measures of toxicity

No information available.

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Methanol (methyl alcohol)	= 6200 mg/kg (Rat)	= 15840 mg/kg (Rabbit) = 15800 mg/kg (Rabbit)	= 64000 ppm (Rat) 4 h = 22500 ppm (Rat) 8 h
Methanol, sodium salt	= 2037 mg/kg (Rat)	> 2000 mg/kg (Rat)	-

See section 16 for terms and abbreviations

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Causes burns. Classification is based on mixture calculation methods based on component data.
Serious eye damage/eye irritation	Causes serious eye damage. Classification is based on mixture calculation methods based on component data.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	H361 - Suspected of damaging fertility or the unborn child.
STOT - single exposure	Causes damage to organs.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.
Chronic effects:	Chronic exposure to methanol from skin contact, inhalation or swallowing, at concentrations greater than 1000 ppm can result in permanent blindness and central nervous system effects. Absorption of methanol into the body results in the production of metabolic toxins, formaldehyde and formic acid, which causes metabolic acidosis and selective injurious effects to the eye tissues.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity	Keep out of waterways.
Terrestrial ecotoxicity	There is no data for this product.

Chemical name	EarthWorm	Avian	Honeybees
Methanol (methyl alcohol)	LC50 > 1 mg/cm2 (Eisenia foetida 48 h filter paper)	-	-

Chemical name	Algae/aquatic plants	Fish	Crustacea
Methanol (methyl alcohol)	-	LC50: =28200mg/L (96h, Pimephales promelas) LC50: >100mg/L (96h, Pimephales promelas) LC50: 19500 - 20700mg/L (96h, Oncorhynchus mykiss) LC50: 18 - 20mL/L (96h, Oncorhynchus mykiss) LC50: 13500 - 17600mg/L (96h, Lepomis macrochirus)	-
Methanol, sodium salt	-	LC50: =346mg/L (48h, Leuciscus idus)	-

Persistence and degradability

Persistence and degradability No information available.

Bioaccumulative potential

Bioaccumulation There is no data for this product.

Mobility

Mobility in soil No information available.

Component Information

Chemical name	Partition coefficient
Methanol (methyl alcohol)	-0.77

Other adverse effects

Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS**Waste treatment methods****Waste from residues/unused products**

Dispose of product in packaging/container in a way that is consistent with the Hazardous Substances (Disposal) Notice 2017 and the Act, and Hazardous Substances (Amendments and Revocations) Notice 2020. Treat the chemical using a method that changes the characteristics or composition of the chemical so that the chemical is no longer a hazardous chemical; or export the chemical from New Zealand as waste. Class 2, 3 and 4 chemicals - may not be disposed of into or onto a landfill or sewage facility. They may only be burnt in certain situations. Class 2.1.1, 3.1 and 4.1.1 chemicals may only be discharged into the environment as waste if the substance will not at any time come into contact with class 1 or class 5 substances; and there will be no ignition source in the vicinity of the disposal site at any time and if the substance were to ignite, no person, or place where a person may legally be, would be exposed to an unsafe level of heat radiation.

Class 6 and 8 chemicals – may be discharged into the environment if a tolerable exposure limit has been set for the substance (or a component of that chemical); and the discharge does not, after reasonable mixing, result in the concentration of the substance in an environmental medium exceeding the tolerable exposure limit. If there is not tolerable exposure limit for the substance, then it may only be discharged into the environment if the substance is very rapidly converted to substances that are not hazardous substances.

Contaminated packaging

For packages that have been in direct contact with hazardous chemicals, the person must

ensure that the package is rendered incapable of containing any chemical. It must be disposed of in a manner that is consistent with the requirements for disposal of the chemical that it contained, taking into account the material the package is manufactured from. Packages may only be reused or recycled if the package has been treated to remove any residual contents of the hazardous chemical (class 1, 2, 3, 4, or 5); or the contents of the residue in the package are below the threshold for the chemical to be classified as hazardous (class 6, 8, or 9 chemical).

14. TRANSPORT INFORMATION

ROAD AND RAIL TRANSPORT

Classified as a Dangerous Good according to NZS 5433 Transport of Dangerous Goods on Land; DANGEROUS GOODS.

UN number	1289
Proper shipping name	SODIUM METHYLATE SOLUTION
Hazard class	3
Subsidiary hazard class	8
Subsidiary hazard class 2	6.1
Packing group	II
Hazchem code	•2WE

IATA

UN number	1289
UN proper shipping name	SODIUM METHYLATE SOLUTION
Transport hazard class(es)	3
Subsidiary hazard class	8
Subsidiary hazard class 2	6.1
Packing group	II

IMDG

UN number	1289
UN proper shipping name	SODIUM METHYLATE SOLUTION
Transport hazard class(es)	3
Subsidiary hazard class	8
Subsidiary hazard class 2	6.1
Packing group	II
IMDG EMS Fire	F-E
IMDG EMS Spill	S-C

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

New Zealand

National regulations See section 8 for national exposure control parameters

International Inventories

NZIoC	All the constituents of this material are listed on the New Zealand Inventory of Chemicals.
TSCA	Contact supplier for inventory compliance status.
DSL/NDL	Contact supplier for inventory compliance status.
EINECS/ELINCS	Contact supplier for inventory compliance status.
ENCS	Contact supplier for inventory compliance status.
IECSC	Contact supplier for inventory compliance status.

KECL Contact supplier for inventory compliance status.
PICCS Contact supplier for inventory compliance status.
AIIC All the constituents of this material are listed on the Australian Inventory of Industrial Chemicals.

Legend:

NZIoC - New Zealand Inventory of Chemicals
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
- Australian Inventory of Industrial Chemicals

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

16. OTHER INFORMATION

Prepared By This Safety Data Sheet has been prepared by Ixom Operations Pty Ltd (Toxicology and SDS Services).
Issuing Date: 24-Aug-2021
Reason(s) For Issue: 5 Yearly Revised Primary SDS

Revision Note:

The symbol (*) in the margin of this SDS indicates that this line has been revised.

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
C	Carcinogen		

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
 U.S. Environmental Protection Agency ChemView Database
 European Food Safety Authority (EFSA)
 EPA (Environmental Protection Agency)
 Acute Exposure Guideline Level(s) (AEGL(s))
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
 U.S. Environmental Protection Agency High Production Volume Chemicals
 Food Research Journal
 Hazardous Substance Database
 International Uniform Chemical Information Database (IUCLID)
 Japan GHS Classification
 Australian Industrial Chemicals Introduction Scheme (AICIS)
 NIOSH (National Institute for Occupational Safety and Health)
 National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
RTECS (Registry of Toxic Effects of Chemical Substances)
World Health Organization

Disclaimer

This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Ixom Operations Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their Ixom representative or Ixom Operations Pty Ltd at the contact details on page 1.

Ixom Operations Pty Ltd's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.

End of Safety Data Sheet