



## 1. IDENTIFICATION

<b>Product Name</b>	<b>Hydroxypropyl methyl cellulose (HPMC)</b>
<b>Other Names</b>	No Data Available
<b>Uses</b>	Food additive; Thickening agent. Pharmaceutical excipient; film coating material, binder.
<b>Chemical Family</b>	No Data Available
<b>Chemical Formula</b>	C <sub>3</sub> H <sub>8</sub> O <sub>2</sub> .xCH <sub>4</sub> O.x
<b>Chemical Name</b>	Cellulose, 2-hydroxypropyl methyl ether
<b>Product Description</b>	No Data Available

### Contact Details of the Supplier of this Safety Data Sheet

<b>Organisation</b>	<b>Location</b>	<b>Telephone</b>
Redox Ltd	2 Swettenham Road Minto NSW 2566 Australia	+61-2-97333000
Redox Ltd	11 Mayo Road Wiri Auckland 2104 New Zealand	+64-9-2506222
Redox Inc.	3960 Paramount Boulevard Suite 107 Lakewood CA 90712 USA	+1-424-675-3200
Redox Chemicals Sdn Bhd	Suite 13A.03, Menara Summit Persiaran Kewajipan USJ1 47600 UEP Subang Jaya Selangor, Malaysia	+60-3-5614-2111

### Emergency Contact Details

*For emergencies only; DO NOT contact these companies for general product advice.*

<b>Organisation</b>	<b>Location</b>	<b>Telephone</b>
Poisons Information Centre	Australia – Westmead NSW	1800-251525 131126
Chemcall	Australia	1800-127406 +64-4-9179888
Chemcall	Malaysia	+64-4-9179888
National Poison Centre	Malaysia	+60-4-6536-999
Chemcall	New Zealand	0800-243622 +64-4-9179888
National Poisons Centre	New Zealand	0800-764766
CHEMTREC	USA & Canada	1-800-424-9300 CN723420 +1-703-527-3887

## 2. HAZARD IDENTIFICATION

**Poisons Schedule (Aust)**

Not Scheduled



## Globally Harmonised System

**Hazard Classification** NOT hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

**Signal Word** None

## National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

**Dangerous Goods Classification** NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

## Safe Work Australia

National Guide for Classifying Hazardous Chemicals under the Model WHS Regulations

**Hazard Classification** NOT hazardous according to the criteria of Safe Work Australia under Model WHS Regulations

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

## Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Hydroxypropyl methyl cellulose	Unspecified	9004-65-3	<=100 %

## 4. FIRST AID MEASURES

## Description of necessary measures according to routes of exposure

<b>Swallowed</b>	IF SWALLOWED: Rinse mouth, then drink plenty of water. Do not induce vomiting. Get medical advice/attention if you feel unwell.
<b>Eye</b>	IF IN EYES: Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting the upper and lower lids. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. If eye irritation persists, get medical advice/attention.
<b>Skin</b>	IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs, get medical advice/attention.
<b>Inhaled</b>	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If respiratory symptoms persist, get medical advice/attention. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.
<b>Advice to Doctor</b>	Treat symptomatically. *Most important symptoms and effects, both acute and delayed: None known.
<b>Medical Conditions Aggravated by Exposure</b>	No information available.

## 5. FIRE FIGHTING MEASURES

**General Measures** If safe to do so, move undamaged containers from fire area. Cool containers with water spray until well after fire is out.

	Dike fire-control water for later disposal.
<b>Flammability Conditions</b>	Combustible material; May burn but does not ignite readily.
<b>Extinguishing Media</b>	Use dry chemical, Carbon dioxide (CO <sub>2</sub> ), foam or water spray for extinction. Do not scatter spilled material with high pressure water jets.
<b>Fire and Explosion Hazard</b>	Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.
<b>Hazardous Products of Combustion</b>	Fire may produce irritating and/or toxic gases, including Carbon oxides.
<b>Special Fire Fighting Instructions</b>	Contain runoff from fire control or dilution water - Runoff may cause pollution.
<b>Personal Protective Equipment</b>	Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.
<b>Flash Point</b>	No Data Available
<b>Lower Explosion Limit</b>	No Data Available
<b>Upper Explosion Limit</b>	No Data Available
<b>Auto Ignition Temperature</b>	No Data Available
<b>Hazchem Code</b>	No Data Available

## 6. ACCIDENTAL RELEASE MEASURES

<b>General Response Procedure</b>	Ensure adequate ventilation. ELIMINATE all ignition sources. Do not touch or walk through spilled material - Spilled powder becomes slippery when wet! Avoid generating dust. Avoid breathing dust and contact with eyes, skin and clothing.
<b>Clean Up Procedures</b>	Sweep up and shovel. Keep in suitable, closed containers for disposal (see SECTION 13).
<b>Containment</b>	Stop leak if you can do it without risk. Prevent dust cloud. Prevent entry into waterways, sewers, basements or confined areas.
<b>Decontamination</b>	After spills, wash area, preventing runoff from entering drains.
<b>Environmental Precautionary Measures</b>	Prevent entry into drains and waterways.
<b>Evacuation Criteria</b>	Spill or leak area should be isolated immediately. Keep unauthorised personnel away.
<b>Personal Precautionary Measures</b>	Use personal protective equipment as required (see SECTION 8).

## 7. HANDLING AND STORAGE

<b>Handling</b>	Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Keep exposure to this product to a minimum and minimise the quantities kept in work areas. Minimise dust generation and accumulation. Avoid breathing dust and contact with eyes, skin and clothing. Do not ingest. Use personal protective equipment as required (see SECTION 8). WARNING: May form combustible dust concentrations in air! Keep away from heat and sources of ignition - No smoking. Take action to prevent static discharges.
<b>Storage</b>	Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep container tightly closed. Keep away from heat and sources of ignition - No smoking. Keep away from incompatible materials (see SECTION 10).
<b>Container</b>	Keep in the original container; make sure that packaging is sound and store in a suitable clean environment

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>General</b>	No specific exposure standards are available for this product. For dusts from solid substances without specific occupational exposure standards:
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- Safe Work Australia Exposure Standard for Nuisance dusts: 8 hr TWA = 10 mg/m<sup>3</sup> (measured as inhalable dust).
- New Zealand WES for Particulates not otherwise classified: TWA = 10 mg/m<sup>3</sup>; TWA = 3 mg/m<sup>3</sup> (respirable dust).

<b>Exposure Limits</b>	No Data Available
<b>Biological Limits</b>	No information available.
<b>Engineering Measures</b>	A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.
<b>Personal Protection Equipment</b>	<ul style="list-style-type: none"> <li>- Respiratory protection: In case of inadequate ventilation, wear respiratory protection. Recommended: Dust mask/particulate respirator (refer to AS/NZS 1715 &amp; 1716).</li> <li>- Eye/face protection: Wear appropriate eye protection to avoid eye contact. Recommended: Suitable protective glasses or goggles.</li> <li>- Hand protection: Handle with gloves. Recommended: Suitable gloves (preferably elbow-length), when skin contact is likely.</li> <li>- Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Protective clothing made from rubber, PVC.</li> </ul>
<b>Special Hazards Precautions</b>	No information available.
<b>Work Hygienic Practices</b>	Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry. Make sure that the work environment remains clean and that dusts are minimised.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State</b>	Solid
<b>Appearance</b>	Powder
<b>Odour</b>	Odourless or slight
<b>Colour</b>	White to off-white
<b>pH</b>	4 - 9 2% aqueous solution
<b>Vapour Pressure</b>	No Data Available
<b>Relative Vapour Density</b>	No Data Available
<b>Boiling Point</b>	No Data Available
<b>Melting Point</b>	No Data Available
<b>Freezing Point</b>	No Data Available
<b>Solubility</b>	Soluble in water
<b>Specific Gravity</b>	1.26 - 1.31
<b>Flash Point</b>	No Data Available
<b>Auto Ignition Temp</b>	No Data Available
<b>Evaporation Rate</b>	No Data Available
<b>Bulk Density</b>	No Data Available
<b>Corrosion Rate</b>	No Data Available
<b>Decomposition Temperature</b>	280 - 300 °C
<b>Density</b>	No Data Available
<b>Specific Heat</b>	No Data Available
<b>Molecular Weight</b>	No Data Available
<b>Net Propellant Weight</b>	No Data Available
<b>Octanol Water Coefficient</b>	No Data Available
<b>Particle Size</b>	No Data Available
<b>Partition Coefficient</b>	No Data Available
<b>Saturated Vapour Concentration</b>	No Data Available
<b>Vapour Temperature</b>	No Data Available

Viscosity	No Data Available
Volatile Percent	approx. 5% (water content)
VOC Volume	No Data Available
Additional Characteristics	Cellulose ethers are water soluble polymers which form aqueous dispersions by swelling and by successive hydration of their structural layers.
Potential for Dust Explosion	Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.
Fast or Intensely Burning Characteristics	No information available.
Flame Propagation or Burning Rate of Solid Materials	No information available.
Non-Flammables That Could Contribute Unusual Hazards to a Fire	No information available.
Properties That May Initiate or Contribute to Fire Intensity	Combustible material; May burn but does not ignite readily.
Reactions That Release Gases or Vapours	Fire/decomposition may produce irritating and/or toxic gases, including Carbon oxides.
Release of Invisible Flammable Vapours and Gases	No information available.

## 10. STABILITY AND REACTIVITY

General Information	This product is unlikely to react or decompose under normal storage conditions.
Chemical Stability	Stable under normal conditions of use.
Conditions to Avoid	Avoid generating dust. Keep away from heat and sources of ignition.
Materials to Avoid	Incompatible/reactive with strong oxidising agents, strong acids, strong bases.
Hazardous Decomposition Products	Fire/decomposition may produce irritating and/or toxic gases, including Carbon oxides. Decomposition products depend on temperature, air supply and the presence of other materials.
Hazardous Polymerisation	Will not occur.

## 11. TOXICOLOGICAL INFORMATION

General Information	<p>Information on toxicological effects:</p> <ul style="list-style-type: none"><li>- Acute toxicity: Not classified.</li><li>- Skin corrosion/irritation: Not classified.</li><li>- Serious eye damage/irritation: Classification not possible.</li><li>- Respiratory/skin sensitisation: Classification not possible.</li><li>- Germ cell mutagenicity: Classification not possible.</li><li>- Carcinogenicity: Not classified.</li><li>- Reproductive toxicity: Not classified.</li><li>- STOT (single exposure): Classification not possible.</li><li>- STOT (repeated exposure): Not classified.</li><li>- Aspiration toxicity: Classification not possible.</li></ul> <p>Information on likely routes of exposure:</p> <ul style="list-style-type: none"><li>- Ingestion: Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.</li><li>- Eye contact: Solid or dust may cause irritation or corneal injury due to mechanical action.</li><li>- Skin contact: Essentially non-irritating to skin.</li><li>- Inhalation: No adverse effects are anticipated from single exposure to dust.</li></ul> <p>Chronic effects: No information available.</p>
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**Acute**

Ingestion	Acute toxicity (Oral): - LD50, Rat: >10,000 mg/kg [Supplier's SDS].
Carcinogen Category	None

**12. ECOLOGICAL INFORMATION**

Ecotoxicity	Not expected to be acutely toxic to aquatic organisms.
Persistence/Degradability	No appreciable biodegradation is expected.
Mobility	No information available.
Environmental Fate	Prevent entry into drains and waterways.
Bioaccumulation Potential	No bio-concentration is expected because of the relatively high molecular weight.
Environmental Impact	No Data Available

**13. DISPOSAL CONSIDERATIONS**

General Information	This product may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. If neither of these options is suitable, consider controlled incineration, or landfill. Recycle containers wherever possible, after careful cleaning.
Special Precautions for Land Fill	Reduce, reuse and recycle, and only if all else fails, should disposal be considered.

**14. TRANSPORT INFORMATION****Land Transport (Australia)**

ADG Code

Proper Shipping Name	Hydroxypropyl methyl cellulose (HPMC)
Class	No Data Available
Subsidiary Risk(s)	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

**Land Transport (Malaysia)**

ADR Code

Proper Shipping Name	Hydroxypropyl methyl cellulose (HPMC)
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available

# SAFETY DATA SHEET HYDROXYPROPYL METHYL CELLULOSE (HPMC) REVISION 3, DATE 08 APR 2024

UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

## Land Transport (New Zealand)

NZS5433

Proper Shipping Name	Hydroxypropyl methyl cellulose (HPMC)
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

## Land Transport (United States of America)

US DOT

Proper Shipping Name	Hydroxypropyl methyl cellulose (HPMC)
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

## Sea Transport

IMDG Code

Proper Shipping Name	Hydroxypropyl methyl cellulose (HPMC)
Class	No Data Available
Subsidiary Risk(s)	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
EMS	No Data Available
Marine Pollutant	No
Comments	NON-DANGEROUS GOODS: Not regulated for SEA transport.

## Air Transport

IATA DGR

Proper Shipping Name	Hydroxypropyl methyl cellulose (HPMC)
Class	No Data Available
Subsidiary Risk(s)	No Data Available

UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for AIR transport.

**National Transport Commission (Australia)**

Australian Code for the Transport of Dangerous Goods by Road &amp; Rail (ADG Code)

Dangerous Goods Classification	NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)
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**15. REGULATORY INFORMATION**

General Information	No Data Available
Poisons Schedule (Aust)	Not Scheduled

**Environmental Protection Authority (New Zealand)**

Hazardous Substances and New Organisms Amendment Act 2015

Approval Code	Not Hazardous
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**National/Regional Inventories**

Australia (AIIIC)	Listed
Canada (DSL)	Listed
Canada (NDSL)	Not Determined
China (IECSC)	Listed
Europe (EINECS)	618-389-6
Europe (REACH)	Not Determined
Japan (ENCS/METI)	Listed
Korea (KECI)	Listed
Malaysia (List of Classified Substances)	Not Determined
New Zealand (NZIoC)	Listed
Philippines (PICCS)	Listed
Taiwan (TCSI)	Listed
USA (TSCA)	Listed
Mexico (INSQ)	Not Determined



## 16. OTHER INFORMATION

Related Product Codes	HYPRMC0040, HYPRMC1000, HYPRMC1001, HYPRMC1002, HYPRMC1003, HYPRMC1004, HYPRMC1500, HYPRMC2000, HYPRMC2020, HYPRMC2100, HYPRMC2317, HYPRMC2334, HYPRMC2500, HYPRMC2800, HYPRMC2823, HYPRMC2900, HYPRMC3000, HYPRMC3010, HYPRMC3020, HYPRMC3030, HYPRMC3040, HYPRMC3041, HYPRMC3100, HYPRMC3200, HYPRMC3300, HYPRMC3400, HYPRMC3500, HYPRMC3600, HYPRMC4000, HYPRMC4100, HYPRMC4300, HYPRMC4500, HYPRMC5000, HYPRMC5500, HYPRMC6000, HYPRMC6200, HYPRMC6400, HYPRMC7000, HYPRMC7200, HYPRMC7210, HYPRMC7500, HYPRMC7550, HYPRMC8000, HYPRMC8500, HYPRMC8501, HYPRMC9000, HYPRMC9004, HYPRMC9010, HYPRMC9020, HYPRMC9030, HYPRMC9100, HYPRMC9500, HYPRMC9700
Revision	3
Revision Date	08 Apr 2024
Key/Legend	<p>&lt; Less Than &gt; Greater Than</p> <p><b>AICS</b> Australian Inventory of Chemical Substances  <b>atm</b> Atmosphere  <b>CAS</b> Chemical Abstracts Service (Registry Number)  <b>cm<sup>2</sup></b> Square Centimetres  <b>CO<sub>2</sub></b> Carbon Dioxide  <b>COD</b> Chemical Oxygen Demand  <b>deg C (°C)</b> Degrees Celcius  <b>EPA (New Zealand)</b> Environmental Protection Authority of New Zealand  <b>deg F (°F)</b> Degrees Farenheit  <b>g</b> Grams  <b>g/cm<sup>3</sup></b> Grams per Cubic Centimetre  <b>g/l</b> Grams per Litre  <b>HSNO</b> Hazardous Substance and New Organism  <b>IDLH</b> Immediately Dangerous to Life and Health  <b>immiscible</b> Liquids are insoluable in each other.  <b>inHg</b> Inch of Mercury  <b>inH<sub>2</sub>O</b> Inch of Water  <b>K</b> Kelvin  <b>kg</b> Kilogram  <b>kg/m<sup>3</sup></b> Kilograms per Cubic Metre  <b>lb</b> Pound  <b>LC50</b> LC stands for lethal concentration. LC50 is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.  <b>LD50</b> LD stands for Lethal Dose. LD50 is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.  <b>ltr or L</b> Litre  <b>m<sup>3</sup></b> Cubic Metre  <b>mbar</b> Millibar  <b>mg</b> Milligram  <b>mg/24H</b> Milligrams per 24 Hours  <b>mg/kg</b> Milligrams per Kilogram  <b>mg/m<sup>3</sup></b> Milligrams per Cubic Metre  <b>Misc or Miscible</b> Liquids form one homogeneous liquid phase regardless of the amount of either component present.  <b>mm</b> Millimetre  <b>mmH<sub>2</sub>O</b> Millimetres of Water  <b>mPa.s</b> Millipascals per Second  <b>N/A</b> Not Applicable  <b>NIOSH</b> National Institute for Occupational Safety and Health  <b>NOHSC</b> National Occupational Heath and Safety Commission  <b>OECD</b> Organisation for Economic Co-operation and Development  <b>Oz</b> Ounce  <b>PEL</b> Permissible Exposure Limit  <b>Pa</b> Pascal  <b>ppb</b> Parts per Billion  <b>ppm</b> Parts per Million  <b>ppm/2h</b> Parts per Million per 2 Hours  <b>ppm/6h</b> Parts per Million per 6 Hours  <b>psi</b> Pounds per Square Inch</p>

**R** Rankine  
**RCP** Reciprocal Calculation Procedure  
**STEL** Short Term Exposure Limit  
**TLV** Threshold Limit Value  
**tne** Tonne  
**TWA** Time Weighted Average  
**ug/24H** Micrograms per 24 Hours  
**UN** United Nations  
**wt** Weight