



# SAFETY DATA SHEET OLEORESIN, CUMIN REVISION 2, DATE 04 JUL 19

## 1. IDENTIFICATION

<b>Product Name</b>	<b>Oleoresin, Cumin</b>
<b>Other Names</b>	Cumin Oil; Cumin Oleoresin Roasted; Cumin, ext. [CAS#84775-51-9]; Oils, cumin
<b>Uses</b>	Industrial uses; Food flavouring.
<b>Chemical Family</b>	No Data Available
<b>Chemical Formula</b>	Unspecified
<b>Chemical Name</b>	Cumin, ext.
<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	Level 2, No. 8, Jalan Sapir 33/7 Seksyen 33, Shah Alam Premier Industrial Park 40400 Shah Alam Sengalor, 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	Westmead NSW	1800-251525 131126
Chemcall	Australia	1800-127406 +64-4-9179888
Chemcall	Malaysia	+64-4-9179888
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

<b>Hazard Classification</b>		Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)	
<b>Hazard Categories</b>		Flammable Liquids - Category 4 Sensitisation (Skin) - Category 1 Aspiration Hazard - Category 1 Long-term Hazard To The Aquatic Environment - Category 2	
<b>Pictograms</b>		  	
<b>Signal Word</b>		Danger	
<b>Hazard Statements</b>		<b>H227</b>	Combustible liquid.
		<b>H304</b>	May be fatal if swallowed and enters airways.
		<b>H317</b>	May cause an allergic skin reaction.
		<b>H411</b>	Toxic to aquatic life with long lasting effects.
<b>Precautionary Statements</b>	Prevention	<b>P210</b>	Keep away from flames and hot surfaces. No smoking.
		<b>P280</b>	Wear protective gloves/eye protection/face protection.
		<b>P261</b>	Avoid breathing mist/vapours/spray.
		<b>P273</b>	Avoid release to the environment.
		<b>P272</b>	Contaminated work clothing should not be allowed out of the workplace.
	Response	<b>P370 + P378</b>	In case of fire: Alcohol resistant foam is the preferred fire-fighting medium but, if it is not available, normal foam can be used.
		<b>P301 + P310</b>	IF SWALLOWED: Immediately call a POISON CENTER or doctor.
		<b>P331</b>	Do NOT induce vomiting.
		<b>P302 + P352</b>	IF ON SKIN: Wash with plenty of water/...
		<b>P333 + P313</b>	If skin irritation or rash occurs: Get medical advice/attention.
		<b>P363</b>	Wash contaminated clothing before reuse.
		<b>P391</b>	Collect spillage.
		<b>P403 + P235</b>	Store in a well-ventilated place. Keep cool.
	Storage	<b>P405</b>	Store locked up.
	Disposal	<b>P501</b>	Dispose of contents/container in accordance with local / regional / national / international regulations.

## National Transport Commission (Australia)

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

<b>Dangerous Goods Classification</b>	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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## 3. COMPOSITION/INFORMATION ON INGREDIENTS

## Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Oleoresin, Cumin	Unspecified	8014-13-9	<=100 %

#### 4. FIRST AID MEASURES

##### *Description of necessary measures according to routes of exposure*

<b>Swallowed</b>	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a Poison Centre or doctor/physician for advice.
<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: Remove contaminated clothing and shoes immediately. Flush skin with running water for at least 15 minutes. For minor skin contact, avoid spreading material on unaffected skin. If skin irritation or rash occurs, get medical advice/attention. Wash contaminated clothing and shoes before reuse.
<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. Apply resuscitation if victim is not breathing - Do not use direct mouth-to-mouth method if victim ingested or inhaled the substance; use alternative respiratory method or proper respiratory device - Administer oxygen if breathing is difficult.
<b>Advice to Doctor</b>	Treat symptomatically. Keep victim calm and warm - Obtain immediate medical care. Ensure that attending medical personnel are aware of the identity and nature of the product(s) involved, and take precautions to protect themselves.
<b>Medical Conditions Aggravated by Exposure</b>	May cause an allergic skin reaction.

#### 5. FIRE FIGHTING MEASURES

<b>General Measures</b>	If safe to do so, move undamaged containers from fire area. Cool containers with water spray until well after fire is out. Avoid getting water inside containers. Large fire: Consider initial evacuation of areas within 100 m in all directions.
<b>Flammability Conditions</b>	Combustible liquid: 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 use water jets.
<b>Fire and Explosion Hazard</b>	Containers may explode when heated.
<b>Hazardous Products of Combustion</b>	Fire will produce irritating, toxic and/or corrosive gases, including Carbon oxides and other unidentified organic compounds.
<b>Special Fire Fighting Instructions</b>	Contain runoff from fire control or dilution water - Runoff may pollute waterways.
<b>Personal Protective Equipment</b>	Wear self-contained breathing apparatus (SCBA) and chemical splash suit. SCBA and structural firefighter's uniform may provide limited protection.
<b>Flash Point</b>	76.5 °C
<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. Avoid breathing vapours and contact with eyes, skin and clothing.
<b>Clean Up Procedures</b>	Absorb with earth, sand or other non-combustible material and transfer to a suitable container for disposal (see SECTION 13).

<b>Containment</b>	Stop leak if safe to do so - Prevent entry into waterways, drains or confined areas.
<b>Decontamination</b>	No information available.
<b>Environmental Precautionary Measures</b>	Spillages and decontamination runoff should be prevented from entering drains and watercourses.
<b>Evacuation Criteria</b>	Spill or leak area should be isolated immediately. Keep unauthorised personnel away. Keep upwind and to higher ground.
<b>Personal Precautionary Measures</b>	Use personal protective equipment as required (see SECTION 8). Large spill: Wear SCBA and chemical splash suit.

## 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. Avoid breathing mist/vapours and contact with eyes, skin and clothing. Do not ingest. Use personal protective equipment as required (see SECTION 8). COMBUSTIBLE LIQUID: Keep away from heat and sources of ignition - No smoking. Avoid release to the environment - Collect spillage (see SECTION 6).
<b>Storage</b>	Store in a cool, dry and well-ventilated place. Protect from light. Keep container tightly closed. Keep cool. Keep away from heat and sources of ignition - No smoking. Keep away from foodstuffs and incompatible materials (see SECTION 10). Store locked up.
<b>Container</b>	Keep in the original container.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>General</b>	No specific exposure standards are available for this product.
<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: Organic vapour/particulate filter respirator (refer to AS/NZS 1715 &amp; 1716).</li><li>- Eye/face protection: Wear appropriate eye protection to avoid eye contact. Recommended: Chemical safety goggles.</li><li>- Hand protection: Wear protective gloves. Recommended: Chemical-resistant gloves.</li><li>- Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Overalls, safety shoes.</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 hands before breaks and at the end of work. Remove contaminated clothing and shoes immediately and wash before reuse. Contaminated work clothing should not be allowed out of the workplace.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State</b>	Liquid
<b>Appearance</b>	Clear liquid
<b>Odour</b>	Distinctive aroma (Cuminaldehyde)
<b>Colour</b>	Golden yellow
<b>pH</b>	No Data Available
<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 fixed oils
<b>Specific Gravity</b>	0.9100 - 0.9300
<b>Flash Point</b>	76.5 °C
<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>	No Data Available
<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
<b>Viscosity</b>	No Data Available
<b>Volatile Percent</b>	No Data Available
<b>VOC Volume</b>	No Data Available
<b>Additional Characteristics</b>	Refractive Index: 1.4700 - 1.4790
<b>Potential for Dust Explosion</b>	Not applicable.
<b>Fast or Intensely Burning Characteristics</b>	No information available.
<b>Flame Propagation or Burning Rate of Solid Materials</b>	No information available.
<b>Non-Flammables That Could Contribute Unusual Hazards to a Fire</b>	No information available.
<b>Properties That May Initiate or Contribute to Fire Intensity</b>	Combustible liquid: May burn but does not ignite readily.
<b>Reactions That Release Gases or Vapours</b>	Fire/decomposition will produce irritating, toxic and/or corrosive gases, including Carbon oxides and other unidentified organic compounds.
<b>Release of Invisible Flammable Vapours and Gases</b>	No information available.

## 10. STABILITY AND REACTIVITY

<b>General Information</b>	Does not undergo any dangerous reactions under normal conditions.
<b>Chemical Stability</b>	Stable under normal operating conditions.
<b>Conditions to Avoid</b>	Keep away from heat and sources of ignition.
<b>Materials to Avoid</b>	Incompatible/reactive with strong oxidising agents.
<b>Hazardous Decomposition Products</b>	Fire/decomposition will produce irritating, toxic and/or corrosive gases, including Carbon oxides and other unidentified organic compounds.

**Hazardous Polymerisation** Does not occur.

## 11. TOXICOLOGICAL INFORMATION

**General Information**

- Acute toxicity: May be harmful if swallowed. Consumption may cause queasiness and stomach aches.
- Skin corrosion/irritation: May cause skin irritation, stinging.
- Eye damage/irritation: May cause eye irritation, reddening.
- Respiratory/skin sensitisation: May cause an allergic skin reaction.
- Germ cell mutagenicity: No information available.
- Carcinogenicity: No information available.
- Reproductive toxicity: No information available.
- STOT (single exposure): Inhalation may cause choking, drowsiness, respiratory disruptions.
- STOT (repeated exposure): No information available.
- Aspiration toxicity: May be fatal if swallowed and enters airways.

**Carcinogen Category** None

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity** No information available.

**Persistence/Degradability** No information available.

**Mobility** No information available.

**Environmental Fate** Toxic to aquatic life with long lasting effects - Prevent entry into drains and waterways.

**Bioaccumulation Potential** No information available.

**Environmental Impact** No Data Available

## 13. DISPOSAL CONSIDERATIONS

**General Information** Dispose of contents/container in accordance with local/regional/national regulations.

**Special Precautions for Land Fill** No information available.

## 14. TRANSPORT INFORMATION

### Land Transport (Australia)

ADG Code

<b>Proper Shipping Name</b>	Oleoresin, Cumin
<b>Class</b>	C1 Combustible Liquids - Flash Point >60°C - <=93°C, Closed Cup
<b>Subsidiary Risk(s)</b>	No Data Available
<b>EPG</b>	47 Low To Moderate Hazard Substances
<b>UN Number</b>	No Data Available
<b>Hazchem</b>	No Data Available
<b>Pack Group</b>	No Data Available

**Special Provision**

No Data Available

**Comments**

UN#3082: Not regulated as DG when transported by road or rail in packagings that do not incorporate a receptacle exceeding 500 kg(L) or IBCs.

**Land Transport (Malaysia)**

ADR Code

**Proper Shipping Name**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Oleoresin, Cumin)

**Class**

9 Miscellaneous Dangerous Goods and Articles

**Subsidiary Risk(s)**

No Data Available

**EPG**

47 Low To Moderate Hazard Substances

**UN Number**

3082

**Hazchem**

3Z

**Pack Group**

III

**Special Provision**

No Data Available

**Land Transport (New Zealand)**

NZS5433

**Proper Shipping Name**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Oleoresin, Cumin)

**Class**

9 Miscellaneous Dangerous Goods and Articles

**Subsidiary Risk(s)**

No Data Available

**EPG**

47 Low To Moderate Hazard Substances

**UN Number**

3082

**Hazchem**

3Z

**Pack Group**

III

**Special Provision**

No Data Available

**Land Transport (United States of America)**

US DOT

**Proper Shipping Name**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Oleoresin, Cumin)

**Class**

9 Miscellaneous Dangerous Goods and Articles

**Subsidiary Risk(s)**

No Data Available

**ERG**

171 Substances (Low to Moderate Hazard)

**UN Number**

3082

**Hazchem**

3Z

**Pack Group**

III

**Special Provision**

No Data Available

**Sea Transport**

IMDG Code

**Proper Shipping Name**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Oleoresin, Cumin)

**Class**

9 Miscellaneous Dangerous Goods and Articles

**Subsidiary Risk(s)**

No Data Available

**UN Number**

3082

**Hazchem**

3Z

**Pack Group**

III

**Special Provision**

No Data Available

**EMS**

F-A, S-F

**Marine Pollutant**

Yes

Air Transport

IATA DGR	
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Oleoresin, Cumin)
Class	9 Miscellaneous Dangerous Goods and Articles
Subsidiary Risk(s)	No Data Available
UN Number	3082
Hazchem	3Z
Pack Group	III
Special Provision	No Data Available

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)

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 Assessed
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National/Regional Inventories

Australia (AIIIC)	Listed
Canada (DSL)	Not Determined
Canada (NDSL)	Not Determined
China (IECSC)	Not Determined
Europe (EINECS)	Not Determined
Europe (REACH)	Not Determined
Japan (ENCS/METI)	Not Determined
Korea (KECI)	Not Determined
Malaysia (EHS Register)	Not Determined
New Zealand (NZIoC)	Not Determined
Philippines (PICCS)	Not Determined

Switzerland (Giftliste 1)	Not Determined
Switzerland (Inventory of Notified Substances)	Not Determined
Taiwan (NCSR)	Not Determined
USA (TSCA)	Not Determined

## 16. OTHER INFORMATION

Related Product Codes	OLECUM1000, OLECUM1100, OLECUM2000
Revision	2
Revision Date	04 Jul 2019
Key/Legend	<p>&lt; Less Than &gt; Greater Than  <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>LC<sub>50</sub></b> LC stands for lethal concentration. LC<sub>50</sub> 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>LD<sub>50</sub></b> LD stands for Lethal Dose. LD<sub>50</sub> 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</p>

**ppm** Parts per Million  
**ppm/2h** Parts per Million per 2 Hours  
**ppm/6h** Parts per Million per 6 Hours  
**psi** Pounds per Square Inch  
**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