

## SAFETY DATA SHEET – RED-KOTE (LIQUID)

Safety Data Sheet according to WHS and ADG requirements

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### SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

#### Product Identifier

Product name	RED-KOTE (LIQUID)
Proper Shipping Name	FLAMMABLE LIQUID N.O.S. (contains acetone, methyl ethyl ketone)
Chemical Name	Mixture blended from discrete components – not applicable
Synonyms	Liquid Fuel Tank Liner
Chemical Formula	Mixture blended from discrete components – not applicable
Other Means of Identification	Not Available
CAS Number	Mixture blended from discrete components – not applicable

#### Relevant identified uses of the substance or mixture and uses advised against

Relevant Identified Uses	FUEL TANK SEALER
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#### Details of the supplier of the safety data sheet

Registered Company Name	FUEL TANK AND RADIATOR SERVICE
Address	10 Holland St, Northgate, QLD, 4013
Telephone	+61 7 3260 6197
FAX	
Website	
Email	

#### Emergency telephone number

Organisation	Chemical Consulting Services Pty Ltd
Emergency Contact Number	0417720832
Other Emergency Numbers	13 11 26 (Poisons Information Centre Hotline)

### SECTION 2 HAZARDS IDENTIFICATION

#### Classification of the substance or mixture

**HAZARDOUS CHEMICAL. DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.**

<b>POISONS SCHEDULE CLASSIFICATION</b>	Not Scheduled Flammable liquid 2 Eye irritation 2A Skin Irritation 2 Specific Target Organ Toxicity 3 Respiratory System Carcinogenicity 2
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#### Label elements



GHS LABEL ELEMENTS

SIGNAL WORD

**DANGER**

**Hazard statement(s)**

Highly flammable liquid and vapour  
 Causes serious eye irritation  
 Causes skin irritation  
 May cause drowsiness or dizziness  
 AUH066 Repeated exposure may cause skin dryness and cracking  
 Suspected of causing cancer

**Precautionary statement(s) Prevention**

Keep away from sparks and open flames. No smoking.  
 Use only outdoors or in a well-ventilated area.  
 Avoid breathing vapors and dust.  
 Keep container tightly closed  
 Ground / bond container and receiving equipment  
 Use only non-sparking tools  
 Take precautionary measures against static discharge  
 Wash hands thoroughly after handling.  
 Wear protective gloves such as rubber or latex (NOT disposable latex).  
 Wear eye protection such as safety glasses with side shields.

**Precautionary statement(s) Response**

IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical attention. Take off contaminated clothing and wash it before reuse.  
 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 INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER if you feel unwell.

In case of fire: Use B or C Class extinguisher or alcohol resistant foam.

**Precautionary statement(s) Storage**

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

**Precautionary statement(s) Disposal**

P501 Dispose of contents/container in accordance with local regulations.

**SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS****Substances**

CAS #	% w/w	NAME
Trade Secret	10 – 30	Vinylidene chloride copolymer
67-64-1	30 – 60	acetone
78-93-3	30 - 60	2-butanone
106-88-7	< 2%	1,2-butylene oxide
	To 100%	Other ingredients not determined to be hazardous

**Mixtures**

See section above for composition of Substances

**SECTION 4 FIRST AID MEASURES****Description of first aid measures**

**Eye Contact:** Immediately flush eyes with water, lifting upper and lower eyelids occasionally. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists, seek medical attention

**Skin Contact:** Wipe off wet material with a paper towel or rag. If dry, material will often peel or rub off – if not, apply a small amount of acetone or MEK on a rag to remove. Wash exposed area with soap and water. Remove contaminated clothing and footwear. If irritation develops and persists, seek medical attention.

**Inhalation:** Move the affected person to fresh air. If irritation persists, seek medical attention. If breathing has stopped, give artificial respiration and seek medical attention immediately

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**Ingestion:** If the product is swallowed, do NOT induce vomiting. If the affected person is conscious, give a glass of water or milk to drink. Get medical attention immediately.

### Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5 FIREFIGHTING MEASURES

### Extinguishing media

Water (fog), carbon dioxide, dry chemical or alcohol foam.

### Special hazards arising from the substrate or mixture

**Fire Incompatibility** None noted

### Advice for firefighters

Alert Fire Brigade and tell them location and nature of hazard.  
Wear breathing apparatus plus protective gloves in the event of a fire.  
Prevent, by any means available, spillage from entering drains or water courses.  
Use fire fighting procedures suitable for surrounding area.  
**DO NOT** approach containers suspected to be hot.  
Cool fire exposed containers with water spray from a protected location.  
If safe to do so, remove containers from path of fire.  
Equipment should be thoroughly decontaminated after use.

### Fire Fighting

#### HIGHLY FLAMMABLE

Decomposition may produce toxic fumes of:

- carbon dioxide (CO<sub>2</sub>)
- other pyrolysis products typical of burning organic material.
- May emit corrosive fumes.

## HAZCHEM

2YE

## SECTION 6 ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

See section 8

### Environmental precautions

See section 12

#### Spills

Clean up all spills immediately.  
Eliminate all sources of ignition and use a respirator if the spill is large  
Take all necessary steps to prevent entry into drains or waterways.  
If material is wet – small spills may be wiped up. When material is tacky it may be shovelled or scraped up – use non-sparking tools only  
Clean residue with a solvent such as MEK or acetone.  
For larger spills – scoop into metal containers for disposal or absorb onto non-combustible absorbent (vermiculite, sand or diatomite) and put into sealed metal containers.  
NOTE : Rags and adsorbent material remain highly flammable until all solvent has evaporated.

## SECTION 7 HANDLING AND STORAGE

### Precautions for safe handling

Do not use, pour, spill or store near sources of ignition (heat, sparks, heating elements or open flames)  
Vapours may be ignited by pilot lights, static discharge, other flames, sparks, heaters, smoking, electric motors or other ignition sources at a considerable distance from the source.  
When pouring or transferring material, ground and bond both the source and receiving containers with connecting wires or alligator clips.  
Avoid all personal contact, including inhalation.  
Wear protective clothing when risk of exposure occurs.  
Use in a well-ventilated area.  
Prevent concentration in hollows and sumps.  
**DO NOT enter confined spaces until atmosphere has been checked.** Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.  
**DO NOT allow material to contact humans, exposed food or food utensils. When handling, DO NOT eat, drink or smoke.** Use good occupational work practice.  
Avoid contact with incompatible materials.  
Keep containers securely sealed when not in use. Protect containers against physical damage and check regularly for leaks.  
Always wash hands with soap and water after handling.  
Work clothes should be laundered separately. Launder contaminated clothing before re-use.  
Store in original containers.

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Store in a cool, dry, well-ventilated area.  
Store away from incompatible materials and foodstuff containers.  
Observe manufacturer's storage and handling recommendations contained within this SDS.

### Conditions for safe storage, including any incompatibilities

#### Suitable container

Store in original container only.  
Packing as recommended by manufacturer.  
Check all containers are clearly labelled and free from leaks.

#### Storage incompatibility

Do not allow product to come into contact with acids, acid chlorides, acid anhydrides and chloroformates, amines, ammonia  
Avoid reaction with oxidising agents.

## SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

### Control parameters

#### OCCUPATIONAL EXPOSURE LIMITS (OEL)

##### INGREDIENT DATA

	TWA	STEL
Acetone	500ppm / 1185 mg/m <sup>3</sup>	1000 ppm / 2375 mg/m <sup>3</sup>
Methyl ethyl ketone (MEK / 2-butanone)	150ppm / 445 mg/m <sup>3</sup>	300 ppm / 890 mg/m <sup>3</sup>

##### IDHL

Acetone	2500ppm
Methyl ethyl ketone (MEK / 2-butanone)	5000ppm

##### MATERIAL DATA

### Exposure controls

#### Appropriate engineering controls

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.

Employers may need to use multiple types of controls to prevent employee overexposure.

Local exhaust ventilation is required where solids are handled as powders or crystals; even when particulates are relatively large, a certain proportion will be powdered by mutual friction.

If in spite of local exhaust an adverse concentration of the substance in air could occur, respiratory protection should be considered.

Such protection might consist of:

(a): particle dust respirators, if necessary, combined with an absorption cartridge; (b): filter respirators with absorption cartridge or canister of the right type; (c): fresh-air hoods or masks.

Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

#### Personal protection



Safety glasses with side shields. Chemical goggles.

Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury

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experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]

Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent).

When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended. When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended. Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-term use. Contaminated gloves should be replaced. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended. Experience indicates that the following polymers are suitable as glove materials for protection against undissolved, dry solids, where abrasive particles are not present. polychloroprene. nitrile rubber. butyl rubber. fluorocautchouc. polyvinyl chloride. Gloves should be examined for wear and/ or degradation constantly.

**Other protection** Overalls.

P.V.C. apron.

Barrier cream.

Skin cleansing cream.

Eye wash unit.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES****Information on basic physical and chemical properties****Appearance**

Clear, red, viscous liquid with distinctive solvent odour

Physical state	Viscous liquid	Relative Density (Water = 1)	0.970 @ 20°C
Odour	Characteristic ketone odour	Partition co-efficient n-octanol / water	Not Available
Odour Threshold	62 ppm as acetone	Autoignition Temperature	465°C
pH (as supplied)	Not applicable	Decomposition Temperature	Not Available
Melting Point / Freezing Point (°C)	Not Available	Viscosity	Not determined
Initial Boiling point and boiling range (°C)	IBP 79.5°C Range not available	Molecular Weight	Not Applicable
Flash Point (°C)	- 20°C	Taste	Not Applicable
Evaporation Rate	3.7 (water = 1)	Explosive Properties	Not Applicable
Flammability	Highly Flammable	Oxidizing Properties	Not Oxidising
Upper Explosive Limit (UEL %)	12.8%	Surface Tension (mN/m)	Not Determined
Lower Explosive Limit (LEL %)	1.74%	Volatile Component	75%
Vapour pressure (kPa)	As for water	Gas Group	Not Applicable
Solubility in water (g/L)	immiscible	pH as a solution (3%)	7 @ 25°C
Vapour density (Air = 1)	2.5	VOC g/L	348 g/L

**SECTION 10 STABILITY AND REACTIVITY**

<b>Reactivity</b>	See section 7
<b>Chemical stability</b>	Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur.
<b>Possibility of hazardous reactions</b>	See section 7
<b>Conditions to avoid</b>	See section 7
<b>Incompatible materials</b>	See section 7
<b>Hazardous decomposition products</b>	See section 5

**SECTION 11 TOXICOLOGICAL INFORMATION****Information on toxicological effects**

Eyes - causes irritation, redness, tearing, blurred vision. Possible damage from abrasion as material sticks to eyes, lids and lashes.

Skin – Prolonged or repeated use may cause skin drying, mild irritation, redness, possible dermatitis.

Swallowing – Moderately toxic – may obstruct airway - may cause gastrointestinal irritation and nausea.

Breathing - excessive inhalation of vapors may cause nasal and respiratory irritation, dizziness, headache, nausea . High concentrations are narcotic and may cause central nervous system (CNS) depression.

<b>Material</b>	<b>Toxicity</b>
<b>Acetone</b>	<b>LD50 – 5.8g/kg (rat oral)</b>
<b>Methyl ethyl ketone (MEK / 2-butanone)</b>	<b>LD50 – 3.4g/kg (rat oral)</b>
<b>1,2 butylene oxide</b>	<b>LD50 – 1 – 2g/kg (rat oral)</b>

Note : Butylene oxide is not rated as a carcinogen by OSHA or NTP. IARC rates it in Group 2b, possibly carcinogenic, for the following reasons. Butylene oxide has been shown to produce benign and malignant tumors in rats but not in mice. These tumors occurred only following high exposure levels. Butylene oxide is not believed to pose a carcinogenic risk to man. The small percentage of butylene oxide in Red-Kote makes a high exposure level impossible. In female rats exposed by inhalation to > 1000ppm 2-Butanone (5X TLV), minor embryotoxic/fetotoxic effects were observed. The Australian Hazardous Chemical Information System (HCIS) follows the IARC rating system in this regard.

Repeated or prolonged exposure to acetone may be toxic to kidneys, the reproductive system, liver and skin.

**SECTION 12 ECOLOGICAL INFORMATION**

Product is a polymer of low environmental concern.

Do not dispose of product in the environment.

**SECTION 13 DISPOSAL CONSIDERATIONS**

Waste treatment methods

Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.

A Hierarchy of Controls seems to be common - the user should investigate:

Reduction  
Reuse  
Recycling  
Disposal (if all else fails)

This material 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. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.

DO NOT allow wash water from cleaning or process equipment to enter drains.

It may be necessary to collect all wash water for treatment before disposal.

In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. Where in doubt contact the responsible authority.

Recycle wherever possible.

Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.

Dispose of by: burial in a land-fill specifically licenced to accept chemical and / or pharmaceutical wastes or incineration in a licenced apparatus (after admixture with suitable combustible material).

Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

## SECTION 14 TRANSPORT INFORMATION



Labels Required

Marine Pollutant NO

HAZCHEM +2YE

## Land transport (ADG)

UN number 1993  
 UN proper shipping name FLAMMABLE LIQUID N.O.S. (contains acetone, methyl ethyl ketone)  
 Transport hazard class(es) Class 3 (Flammable Liquid)  
 Packing group II  
 Environmental hazard Not Applicable  
 Special precautions for user Special provisions Not applicable  
 Limited quantity 1 L

## Air transport (ICAO-IATA / DGR)

UN number 1993  
 UN proper shipping name FLAMMABLE LIQUID N.O.S. (contains acetone, methyl ethyl ketone)  
 Transport hazard class(es) ICAO/IATA Class 3 (Flammable Liquid)  
 Packing group II  
 Environmental hazard Not Applicable  
 Special precautions for user Cargo Only Packing Instructions 364  
 Cargo Only Maximum Qty / Pack 60 L  
 Passenger and Cargo Packing Instructions 353  
 Passenger and Cargo Maximum Qty / Pack 5 L  
 Passenger and Cargo Limited Quantity Packing Instructions Y341  
 Passenger and Cargo Limited Maximum Qty / Pack 1 L

## Sea transport (IMDG-Code / GGVSee)

UN number 1993  
 UN proper shipping name FLAMMABLE LIQUID N.O.S. (contains acetone, methyl ethyl ketone)  
 Transport hazard class(es) IMDG Class 3 (Flammable Liquid)  
 Packing group II  
 Environmental hazard Not Applicable  
 Special precautions for user EMS Number F-E, S-D  
 Special provisions Not applicable  
 Limited quantity 1 L

Transport in bulk according to Annex II of MARPOL and the IBC code

Oxygenated aliphatic hydrocarbon mixture Z 3

## SECTION 15 REGULATORY INFORMATION

The components of this product are on the AIIC Australian Inventory of Industrial Chemicals.



**SECTION 16 OTHER INFORMATION**

Other information

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

Definitions and abbreviations

PC—TWA: Permissible Concentration-Time Weighted Average

PC—STEL: Permissible Concentration-Short Term Exposure Limit

IARC: International Agency for Research on Cancer

ACGIH: American Conference of Governmental Industrial Hygienists

STEL: Short Term Exposure Limit

TEEL: Temporary Emergency Exposure Limit.

IDLH: Immediately Dangerous to Life or Health Concentrations

OSF: Odour Safety Factor

NOAEL :No Observed Adverse Effect Level

LOAEL: Lowest Observed Adverse Effect Level

TLV: Threshold Limit Value

LOD: Limit Of Detection

OTV: Odour Threshold Value

BCF: BioConcentration Factors

BEI: Biological Exposure Index