

1. IDENTIFICATION

Product Name	Ethylene Propylene Terpolymer
Other Names	DUTRAL K TER; EPDM terpolymers - oil extended
Uses	Production of various rubber final applications.
Chemical Family	No Data Available
Chemical Formula	Unspecified
Chemical Name	Ethylene, propylene, ethylidenenorbornene terpolymer (EPDM)
Product Description	No Data Available

Contact Details of the Supplier of this Safety Data Sheet

Organisation	Location	Telephone
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.

Organisation	Location	Telephone
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

Redox Ltd

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Australia Adelaide Brisbane Melbourne Perth UK Sydney

New Zealand Malaysia Auckland Christchurch USA Los Angeles Hawke's Bay Oakland Mexico London Saltillo

Kuala Lumpur



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
Ethylene, propylene, ethylidenenorbornene terpolymer (EPDM)	No Data Available	25038-36-2	<=100 %

4. FIRST AID MEASURES
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Description of necessary measures a	according to routes of exposure
	IF SWALLOWED: Rinse mouth. Get medical advice/attention if you feel unwell. Never give anything by mouth to an unconscious person.
t	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.
C *	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. *In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin. Removal of solidified molten material from skin requires medical assistance.
	IF INHALED (dust or gas/vapours released by heat): Remove victim to fresh air and keep at rest in a position comfortable for breathing. If respiratory symptoms persist, get medical advice/attention.
Advice to Doctor	Treat symptomatically.
Medical Conditions Aggravated by N Exposure	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.

Flammability Conditions	The product is combustible.
Extinguishing Media	Use dry chemical, Carbon dioxide (CO2), foam or water spray for extinction.
Fire and Explosion Hazard	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.
Hazardous Products of Combustion	Fire may produce Carbon dioxide, Carbon monoxide (when starved of air/oxygen) and possible unburned hydrocarbons. Overheating/pyrolysis may evolve vapours made up of monomers, low molecular weight polymers and their oxidation products.
Special Fire Fighting Instructions	Contain runoff from fire control or dilution water - Runoff may cause pollution.
Personal Protective Equipment	Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.
Flash Point	No Data Available
Lower Explosion Limit	No Data Available
Upper Explosion Limit	No Data Available
Auto Ignition Temperature	>300 °C
Hazchem Code	No Data Available

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure	Ensure adequate ventilation. ELIMINATE all ignition sources (if dust clouds can occur). Do not touch or walk through spilled material. Avoid generating dust. Avoid breathing dust and contact with eyes, skin and clothing.
Clean Up Procedures	Pick up mechanically. Sweep up and shovel. Keep in suitable, closed containers for disposal (see SECTION 13).
Containment	Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas. Prevent dust cloud.
Decontamination	No information available.
Environmental Precautionary Measures	Do not discharge into drains or waterways.
Evacuation Criteria	Spill or leak area should be isolated immediately. Keep unprotected persons away.
Personal Precautionary Measures	Use personal protective equipment as required (see SECTION 8). *Use respiratory protective device against the effects of fumes/dust/aerosol.

7. HANDLING AND STORAGE

Handling	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. Minimise dust generation and accumulation. Avoid breathing fumes/dust/aerosol and contact with eyes, skin and clothing. Do not ingest. Use personal protective equipment as required (see SECTION 8). Elevated processing temperatures may result in some degree of thermal degradation: as a guideline 250 °C is the maximum allowed temperature, for a very short time. WARNING: May form combustible dust concentrations in air (during processing). Keep away from heat, hot surfaces, sparks, open flames and other ignition sources - No smoking. The product is a poor conductor and it is likely to accumulate electrostatic charges. Precautions normally used for not-conductive materials and against the accumulation of electrostatic charges should be used during processes which employ powdered materials or produce dust (e.g. reduce speed to the minimum, install earthing systems, the absolute prohibition to smoke and use free flames, use inert gases in mills and in closed systems).
Storage	Store in a cool (advised temperature 20 - 30 °C), dry and well-ventilated place, out of direct sunlight. Keep container tightly closed. Re-seal opened containers. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources - No smoking. Keep away from incompatible materials (see SECTION 10). *Earth storage silos as a precautionary measure against static electricity build-up.
Container	Keep in the original container.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	No specific exposure standards are available for this product. For dusts from solid substances without specific occupational exposure standards: - Safe Work Australia Exposure Standard (Nuisance dusts): 8 hr TWA = 10 mg/m3 (measured as inhalable dust). - New Zealand WES (Particulates not otherwise classified): TWA = 10 mg/m3; TWA = 3 mg/m3 (respirable dust).
Exposure Limits	No Data Available
Biological Limits	No information available.
Engineering Measures	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.
Personal Protection Equipment	 Respiratory protection: In case of inadequate ventilation, wear respiratory protection. Recommended: Dust mask/particulate respirator. Use respirators and components tested and approved under appropriate government standards (refer to AS/NZS 1715 & 1716). Eye/face protection: Wear appropriate eye protection to avoid eye contact. Recommended: Safety glasses. Use equipment for eye protection tested and approved under appropriate government standards. Hand protection: Handle with gloves. Recommended: Protective gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use. Wash and dry hands. Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Standard work clothes. Choose body protection in relation to its type, to the concentration and amount of hazardous substance(s), and to the specific work-place.
Special Hazards Precaustions	Residual monomers may be present in the product at trace levels, hindered in the polymer matrix, and therefore not available in normal conditions. Traces of monomers and other volatile substances may be given off during processing, particularly at unusually high processing temperatures. Workrooms must be provided with adequate ventilation and exhaust equipment to collect dust and gas/vapours that may be evolved during the conversion.
Work Hygienic Practices	Do not eat, drink or smoke when using this product. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Appearance	Bales, crumbs, pellets
Odour	Characteristic
Colour	Clear to grey/greenish
рН	No Data Available
Vapour Pressure	No Data Available
Relative Vapour Density	No Data Available
Boiling Point	No Data Available
Melting Point	No Data Available
Freezing Point	No Data Available
Solubility	Insoluble in water
Specific Gravity	No Data Available
Flash Point	No Data Available
Auto Ignition Temp	>300 °C
Evaporation Rate	No Data Available
Bulk Density	300 - 600 kg/m3 (at 20 °C)
Corrosion Rate	No Data Available
Decomposition Temperature	No Data Available
Density	0.86 - 0.89 g/cm3

Specific Heat	No Data Available
Molecular Weight	No Data Available
Net Propellant Weight	No Data Available
Octanol Water Coefficient	No Data Available
Particle Size	No Data Available
Partition Coefficient	No Data Available
Saturated Vapour Concentration	No Data Available
Vapour Temperature	No Data Available
Viscosity	No Data Available
Volatile Percent	No Data Available
VOC Volume	No Data Available
Additional Characteristics	The product is a poor conductor and it is likely to accumulate electrostatic charges.
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	The product is combustible.
Reactions That Release Gases or Vapours	Fire may produce Carbon dioxide, Carbon monoxide (when starved of air/oxygen) and possible unburned hydrocarbons. Overheating/pyrolysis may evolve vapours made up of monomers, low molecular weight polymers and their oxidation products.
Release of Invisible Flammable Vapours and Gases	No information available.

10. STABILITY AND REACTIVITY

General Information	Prevent the formation of noxious gases and vapours by using the advised conversion conditions.
Chemical Stability	The product is stable and inert in the recommended storage and handling conditions.
Conditions to Avoid	Avoid generating dust. Avoid exposure to sunlight, heat and sources of ignition. Take action to prevent static discharges.
Materials to Avoid	Incompatible/reactive with oxidising substances.
Hazardous Decomposition Products	Fire may produce Carbon dioxide, Carbon monoxide (when starved of air/oxygen) and possible unburned hydrocarbons. Overheating/pyrolysis may evolve vapours made up of monomers, low molecular weight polymers and their oxidation products.
Hazardous Polymerisation	No information available.

11. TOXICOLOGICAL INFORMATION

General Information	- Acute toxicity: Based on the available data, the classification criteria are not met.
	- Skin corrosion/irritation: Based on the available data, the classification criteria are not met. Contact with molten
	substance may cause thermal burns.
	- Eye damage/irritation: The product's dust may cause irritation of eyes.

- Respiratory/skin sensitisation: Based on the available data, the classification criteria are not met.
- Germ cell mutagenicity: Based on the available data, the classification criteria are not met.
- Carcinogenicity: Based on the available data, the classification criteria are not met.

- Reproductive toxicity: Based on the available data, the classification criteria are not met.

- STOT (single exposure): Based on the available data, the classification criteria are not met. Dust or gas/vapours released by heat may cause irritation of respiratory organs, Eyes reddening.
- STOT (repeated exposure): Based on the available data, the classification criteria are not met.
- Aspiration toxicity: Based on the available data, the classification criteria are not met.

Carcinogen Category

None

12. ECOLOGICAL INFORMATION

Ecotoxicity	The product is essentially a high molecular weight polymer, not regarded as ecotoxic.	
Persistence/Degradability The product is a non-biodegradable polymer.		
Mobility	No information available.	
Environmental Fate	Avoid releasing the product into the environment.	
Bioaccumulation Potential	Does not accumulate in organisms.	
Environmental Impact	No Data Available	

13. DISPOSAL CONSIDERATIONS

General Information	After suitable treatment (cleaning, grinding, etc), the product can be safely reused as is or mixed with fresh material, when this is compatible with the intended final application. Residues & uncleaned packaging should be disposed of as required by national and local regulations.
Special Precautions for Land Fill	Incineration must be done under approved conditions, preferably with energy recovery and only at suitable facilities equipped with a scrubber for the treatment of fumes before their release into the atmosphere.

14. TRANSPORT INFORMATION

Land Transport (Australia)

ADG Code	
Proper Shipping Name	Ethylene Propylene Terpolymer
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 (Malaysia) ADR Code	
Proper Shipping Name	Ethylene Propylene Terpolymer
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 (New Zealand) NZS5433	
Proper Shipping Name	Ethylene Propylene Terpolymer
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	Ethylene Propylene Terpolymer
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

IMDG Code	
Proper Shipping Name	Ethylene Propylene Terpolymer
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	

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Proper Shipping Name Class

Ethylene Propylene Terpolymer 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 & 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)
Bangerous coous classification	5 5

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
National/Regional Inventories	
Australia (AIIC)	Listed
Canada (DSL)	Listed
Canada (NDSL)	Not Listed
China (IECSC)	Listed
Europe (EINECS)	607-505-0
Europe (REACh)	Pre-registered
Japan (ENCS/METI)	6-47
Korea (KECI)	KE-13881
Malaysia (EHS Register)	Exempt
New Zealand (NZIoC)	Listed
Philippines (PICCS)	Listed
Switzerland (Giftliste 1)	Not Determined
Switzerland (Inventory of Notified Substances)	Not Determined

Taiwan (NCSR)	Listed
USA (TSCA)	Listed

16. OTHER INFORMATION	
Related Product Codes	ETPRTE1000, ETPRTE1700, ETPRTE1704, ETPRTE1706, ETPRTE1707, ETPRTE1708, ETPRTE1709, ETPRTE1710, ETPRTE1711 ETPRTE1712, ETPRTE1713, ETPRTE1714, ETPRTE1715, ETPRTE1716, ETPRTE1717, ETPRTE1718, ETPRTE1719, ETPRTE2000, ETPRTE2046, ETPRTE2100, ETPRTE2200, ETPRTE2201, ETPRTE2300, ETPRTE2400, ETPRTE2500, ETPRTE2700, ETPRTE2750, ETPRTE3000, ETPRTE3001
Pevision	
	18 Mar 2020
Revision Date Key/Legend	6 18 Mar 2020 <1. Less Than > Greater Than AICS Australian Inventory of Chemical Substances atm Atmosphere CAS Chemical Abstracts Service (Registry Number) cm ² Square Centimetres CO2 Carbon Dioxide EPA (New Zealand) Environmental Protection Authority of New Zealand deg F (°C) Degrees Celcius EPA (New Zealand) Environmental Protection Authority of New Zealand deg f (°T) Degrees Farenheit g Grams g/cm ³ Grams per Cubic Centimetre g/I Grams per Litre HSNO Hazardous Substance and New Organism IDLH Immediately Dangerous to Life and Health immiscible Liquids are insoluable in each other. inHg Inch of Mercury inH20 Inch of Water K Kelvin kg/m ³ Kilograms per Cubic Metre lb Pound LC50 LC stands for lethal concentration. LC50 is the concentration of a material in air which causes the death of 50% (ore half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours. LD50 LD stands for Lethal Dose. LD50 is the amount of a material, given all at once, which causes the death of 50% (or half) of a group of test animals. It or L Litre m ³ Cubic Metre m ³ Milligram mg/Z4H Milligrams per 24 Hours mg/kg Milligrams per Kubgram
	mm Millimetre mmH2O Millimetres of Water mPa.s Millipascals per Second N/A Not Applicable NIOSH National Institute for Occupational Safety and Health NOHSC National Occupational Heath and Safety Commission
	OECD Organisation for Economic Co-operation and Development Oz Ounce PEL Permissible Exposure Limit Pa Pascal ppb Parts per Billion
	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