



# SAFETY DATA SHEET TITANIUM DIOXIDE (RUTILE) REVISION 6, DATE 25 APR 22

## 1. IDENTIFICATION

<b>Product Name</b>	<b>Titanium Dioxide (Rutile)</b>
<b>Other Names</b>	CI 77891; Pigment White 6; R2195; R906; R-996; RC 822+; Rutile [CAS#1317-80-2]
<b>Uses</b>	Pigment, opacifying agent.
<b>Chemical Family</b>	No Data Available
<b>Chemical Formula</b>	TiO <sub>2</sub>
<b>Chemical Name</b>	Titanium dioxide
<b>Product Description</b>	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



## Globally Harmonised System

<b>Hazard Classification</b>	NOT hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)
<b>Signal Word</b>	None

## 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
Titanium dioxide	TiO <sub>2</sub>	13463-67-7	80 - 100 %
Amorphous Silica	SiO <sub>2</sub>	7631-86-9	0 - 8 %
Aluminium hydroxide	Al(OH) <sub>3</sub>	21645-51-2	0 - 5 %
Zirconium oxide	ZrO <sub>2</sub>	1314-23-4	0 - 1 %
Ingredients determined not to be hazardous	Unspecified	Unspecified	Balance %

## 4. FIRST AID MEASURES

*Description of necessary measures according to routes of exposure*

<b>Swallowed</b>	IF SWALLOWED: Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Get medical advice/attention if you feel unwell. Never give anything by mouth to an unconscious person.
<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.
<b>Medical Conditions Aggravated by Exposure</b>	No information available.

## 5. FIRE FIGHTING MEASURES

<b>General Measures</b>	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. If safe to do so, move undamaged containers from fire area. Cool containers with water spray until well after fire is out.
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<b>Flammability Conditions</b>	Product is inert, non-flammable and non-combustible.
<b>Extinguishing Media</b>	If material is involved in a fire, use an extinguishing agent suitable for the surrounding environment and circumstances.
<b>Fire and Explosion Hazard</b>	No specific fire or explosion hazard. *Static discharge can potentially build up during transport and/or when pouring product from plastic bags. In the presence of flammable or combustible materials, a safety assessment should be carried out.
<b>Hazardous Products of Combustion</b>	Decomposition products may include metal oxide/oxides. *At high temperature decomposition products may include formaldehyde and ethyl acrolein as a result of decomposition of the organic component.
<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>	No action shall be taken involving any personal risk or without suitable training. Ensure adequate ventilation. ELIMINATE all ignition sources. Do not touch or walk through spilled material - Can cause slippery conditions when wet! Avoid generating dust. Avoid breathing dust and contact with eyes, skin and clothing.
<b>Clean Up Procedures</b>	Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. *Avoid creating dusty conditions and prevent wind dispersal.
<b>Containment</b>	Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas.
<b>Decontamination</b>	No information available.
<b>Environmental Precautionary Measures</b>	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
<b>Evacuation Criteria</b>	Spill or leak area should be isolated immediately. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering.
<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, especially in confined areas. Handle in accordance with good industrial hygiene and safety practice. Avoid generating dust. Avoid breathing dust and contact with eyes, skin and clothing. Do not ingest. Use personal protective equipment as required (see SECTION 8). Take precautionary measures against static discharge.
<b>Storage</b>	Store in accordance with local regulations. Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep container tightly closed and sealed until ready for use. Avoid exposure to moisture. Keep away from heat and sources of ignition - No smoking. Keep away from food/feedstuffs and incompatible materials (see SECTION 10). Use appropriate containment to avoid environmental contamination.
<b>Container</b>	Keep in the original container. Do not store in unlabelled containers.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>General</b>	For Titanium dioxide (CAS No. 13463-67-7):
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- Safe Work Australia Exposure Standard: TWA = 10 mg/m<sup>3</sup> (This value is for inhalable dust containing no asbestos and <1% crystalline silica).

COMPONENT: Aluminium oxide (CAS No. 1344-28-1):

- Safe Work Australia Exposure Standard: TWA = 10 mg/m<sup>3</sup> (This value is for inhalable dust containing no asbestos and <1% crystalline silica).

COMPONENT: Amorphous Silica (CAS No. 7631-86-9):

- Safe Work Australia Exposure Standard: TWA = 2 mg/m<sup>3</sup> (respirable dust).

COMPONENT: Zirconium oxide (CAS No. 1314-23-4):

- Safe Work Australia Exposure Standard for Zirconium compounds (as Zr): TWA = 5 mg/m<sup>3</sup>; STEL = 10 mg/m<sup>3</sup>.

### 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: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators (refer to AS/NZS 1715 & 1716).

- Eye/face protection: Wear appropriate eye protection to avoid eye contact. Recommended: If operating conditions cause high dust concentrations to be produced, use dust goggles.

- Hand protection: Handle with gloves. Recommended: Natural rubber/Natural latex, Polyvinyl chloride.

- Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Personal protective equipment for the body, appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

### Special Hazards Precautions

Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose, and throat. Avoid breathing dust. Minimise prolonged skin contact to prevent drying, as all fine powders can absorb moisture and natural oils from the surface of the skin, which could lead to skin cracking.

\*Each work environment must be assessed to determine hazards.

### Work Hygienic Practices

Do not eat, drink or smoke when using this product. Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.

\*Individuals having sensitive skin may find it beneficial to use a barrier cream or moisturizer when excessive or prolonged contact with the skin is likely.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Physical State

Solid

### Appearance

Powder

### Odour

Odourless

### Colour

White

### pH

5.5 - 8.5 (10 g/100 ml aq. sol'n)

### Vapour Pressure

No Data Available

### Relative Vapour Density

No Data Available

### Boiling Point

2,500 - 3,000 °C

### Melting Point

1,830 - 1,850 °C

### Freezing Point

No Data Available

### Solubility

Insoluble in water

### Specific Gravity

3.6 - 4.2

### Flash Point

No Data Available

### Auto Ignition Temp

No Data Available

### Evaporation Rate

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>	No information available.
<b>Potential for Dust Explosion</b>	Static discharge can potentially build up during transport and/or when pouring product from plastic bags. In the presence of flammable or combustible materials, a safety assessment should be carried out.
<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>	Product is inert, non-flammable and non-combustible.
<b>Reactions That Release Gases or Vapours</b>	Decomposition products may include metal oxide/oxides. *At high temperature decomposition products may include formaldehyde and ethyl acrolein as a result of decomposition of the organic component.
<b>Release of Invisible Flammable Vapours and Gases</b>	No information available.

## 10. STABILITY AND REACTIVITY

<b>General Information</b>	No information available.
<b>Chemical Stability</b>	Chemically stable and non-reactive.
<b>Conditions to Avoid</b>	Avoid generating dust. Take precautionary measures against static discharge.
<b>Materials to Avoid</b>	None known.
<b>Hazardous Decomposition Products</b>	Decomposition products may include metal oxide/oxides. *At high temperature decomposition products may include formaldehyde and ethyl acrolein as a result of decomposition of the organic component.
<b>Hazardous Polymerisation</b>	Hazardous polymerisation will not occur.

## 11. TOXICOLOGICAL INFORMATION

<b>General Information</b>	- Acute toxicity: Practically non-toxic. Not classified based on available information.
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- Skin corrosion/irritation: Not classified based on available information. Individuals with sensitive skin may experience skin drying on prolonged or repeated exposure.
- Eye damage/irritation: Not classified based on available information. No significant irritation expected other than mechanical irritation.
- Respiratory/skin sensitisation: Not classified based on available information.
- Germ cell mutagenicity: Not classified based on available information.
- Carcinogenicity: Not classified based on available information. COMPONENT: Titanium dioxide (CAS No. 13463-67-7): Based on the results of chronic inhalation studies (with positive results only in a single species - rat), IARC has concluded that "There is inadequate evidence in humans for the carcinogenicity of titanium dioxide" but that "There is sufficient evidence in experimental animals for carcinogenicity of titanium dioxide". IARC's overall evaluation was that "Titanium dioxide is possibly carcinogenic to humans (Group 2B)." In 2020, the European Commission classified Titanium dioxide (TiO<sub>2</sub>), in powder form containing 1% or more of particles with aerodynamic diameter ≤ 10 µm, as category 2 suspected carcinogen by inhalation.
- Reproductive toxicity: Not classified based on available information.
- STOT (single exposure): Not classified based on available information. Dust may induce mild and temporary upper respiratory irritation with cough and shortness of breath.
- STOT (repeated exposure): Not classified based on available information.
- Aspiration toxicity: Not classified based on available information.

**Acute**

<b>Ingestion</b>	Acute toxicity (Oral): COMPONENT: Titanium dioxide (CAS No. 13463-67-7): - LD50, Rats: >5,000 mg/kg bw.
<b>Inhalation</b>	Acute toxicity (Inhalation): COMPONENT: Titanium dioxide (CAS No. 13463-67-7): - LC50, Rat: >6.82 mg/L air (4 h).
<b>Carcinogen Category</b>	None

**12. ECOLOGICAL INFORMATION**

<b>Ecotoxicity</b>	Aquatic toxicity: COMPONENT: Titanium dioxide (CAS No. 13463-67-7): - LC50, Fish ( <i>Leuciscus idus</i> ): 1,000 mg/L (48 h).
<b>Persistence/Degradability</b>	The material is not biodegradable.
<b>Mobility</b>	No information available.
<b>Environmental Fate</b>	Prevent entry into drains and waterways.
<b>Bioaccumulation Potential</b>	Does not bioaccumulate.
<b>Environmental Impact</b>	No Data Available

**13. DISPOSAL CONSIDERATIONS**

<b>General Information</b>	Dispose of contents/container in accordance with local/regional/national regulations.
<b>Special Precautions for Land Fill</b>	This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues.

**14. TRANSPORT INFORMATION**

**Land Transport (Australia)**

ADG Code

<b>Proper Shipping Name</b>	Titanium Dioxide (Rutile)
<b>Class</b>	No Data Available
<b>Subsidiary Risk(s)</b>	No Data Available
	No Data Available
<b>UN Number</b>	No Data Available
<b>Hazchem</b>	No Data Available
<b>Pack Group</b>	No Data Available
<b>Special Provision</b>	No Data Available
<b>Comments</b>	NON-DANGEROUS GOODS: Not regulated for LAND transport.

**Land Transport (Malaysia)**

ADR Code

<b>Proper Shipping Name</b>	Titanium Dioxide (Rutile)
<b>Class</b>	No Data Available
<b>Subsidiary Risk(s)</b>	No Data Available
	No Data Available
<b>UN Number</b>	No Data Available
<b>Hazchem</b>	No Data Available
<b>Pack Group</b>	No Data Available
<b>Special Provision</b>	No Data Available
<b>Comments</b>	NON-DANGEROUS GOODS: Not regulated for LAND transport.

**Land Transport (New Zealand)**

NZS5433

<b>Proper Shipping Name</b>	Titanium Dioxide (Rutile)
<b>Class</b>	No Data Available
<b>Subsidiary Risk(s)</b>	No Data Available
	No Data Available
<b>UN Number</b>	No Data Available
<b>Hazchem</b>	No Data Available
<b>Pack Group</b>	No Data Available
<b>Special Provision</b>	No Data Available
<b>Comments</b>	NON-DANGEROUS GOODS: Not regulated for LAND transport.

**Land Transport (Singapore)**

<b>Proper Shipping Name</b>	Titanium Dioxide (Rutile)
<b>Class</b>	No Data Available
<b>Subsidiary Risk(s)</b>	No Data Available
	No Data Available
<b>UN Number</b>	No Data Available
<b>Hazchem</b>	No Data Available
<b>Pack Group</b>	No Data Available
<b>Special Provision</b>	No Data Available
<b>Comments</b>	NON-DANGEROUS GOODS: Not regulated for LAND transport.

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

US DOT

<b>Proper Shipping Name</b>	Titanium Dioxide (Rutile)
<b>Class</b>	No Data Available
<b>Subsidiary Risk(s)</b>	No Data Available
	No Data Available
<b>UN Number</b>	No Data Available
<b>Hazchem</b>	No Data Available
<b>Pack Group</b>	No Data Available
<b>Special Provision</b>	No Data Available
<b>Comments</b>	NON-DANGEROUS GOODS: Not regulated for LAND transport.

**Sea Transport**

IMDG Code

<b>Proper Shipping Name</b>	Titanium Dioxide (Rutile)
<b>Class</b>	No Data Available
<b>Subsidiary Risk(s)</b>	No Data Available
<b>UN Number</b>	No Data Available
<b>Hazchem</b>	No Data Available
<b>Pack Group</b>	No Data Available
<b>Special Provision</b>	No Data Available
<b>EMS</b>	No Data Available
<b>Marine Pollutant</b>	No
<b>Comments</b>	NON-DANGEROUS GOODS: Not regulated for SEA transport.

**Air Transport**

IATA DGR

<b>Proper Shipping Name</b>	Titanium Dioxide (Rutile)
<b>Class</b>	No Data Available
<b>Subsidiary Risk(s)</b>	No Data Available
<b>UN Number</b>	No Data Available
<b>Hazchem</b>	No Data Available
<b>Pack Group</b>	No Data Available
<b>Special Provision</b>	No Data Available
<b>Comments</b>	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)

<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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**15. REGULATORY INFORMATION**

<b>General Information</b>	No Data Available
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## Poisons Schedule (Aust)

Not Scheduled

## Hazardous Substances and New Organisms Amendment Act 2015

**Approval Code**

Not Hazardous

## National/Regional Inventories

### Australia (AIIC)

Listed

### Canada (DSL)

Not Determined

### Canada (NDSL)

Not Determined

### China (IECSC)

Not Determined

### Europe (EINECS)

236-675-5

## 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

TIDIEN1000, TIDIOX0100, TIDIOX0200, TIDIOX0300, TIDIOX0500, TIDIOX0501, TIDIOX0800, TIDIOX0810, TIDIOX0940, TIDIOX1000, TIDIOX1001, TIDIOX1002, TIDIOX1003, TIDIOX1004, TIDIOX1005, TIDIOX1006, TIDIOX1007, TIDIOX1008, TIDIOX1009, TIDIOX1010, TIDIOX1011, TIDIOX1012, TIDIOX1013, TIDIOX1014, TIDIOX1015, TIDIOX1016, TIDIOX1017, TIDIOX1018, TIDIOX1019, TIDIOX1021, TIDIOX1100, TIDIOX2000, TIDIOX2160, TIDIOX2165, TIDIOX2195, TIDIOX2196, TIDIOX2198, TIDIOX2295, TIDIOX2500, TIDIOX2501, TIDIOX2502, TIDIOX2503, TIDIOX2600, TIDIOX3000, TIDIOX3001, TIDIOX3002, TIDIOX3003, TIDIOX4000, TIDIOX4200, TIDIOX5000, TIDIOX5001, TIDIOX5880, TIDIOX6100, TIDIOX6101, TIDIOX6300, TIDIOX6400, TIDIOX6800, TIDIOX6900, TIDIOX6995, TIDIOX7000, TIDIOX7101, TIDIOX7300, TIDIOX7500, TIDIOX7501, TIDIOX7510, TIDIOX7600, TIDIOX7901, TIDIOX8001, TIDIOX8030, TIDIOX8080, TIDIOX8101, TIDIOX8102, TIDIOX8220, TIDIOX8221, TIDIOX8300, TIDIOX8400, TIDIOX8500, TIDIOX9000, TIDIOX9010, TIDIOX9020, TIDIOX9050, TIDIOX9060, TIDIOX9061, TIDIOX9100, TIDIOX9200, TIDIOX9300, TIDIOX9400, TIDIOX9401, TIDIOX9500, TIDIOX9600, TIDIOX9690, TIDIOX9691, TIDIOX9800, TIDIOX9850, TIDIOX9800

## Revision

6

Revision Date

25 Apr 2022

< Less Than

## Key/Legend

> Greater Than  
**AICS** Australian Inventory of Chemical Substances  
**atm** Atmosphere  
**CAS** Chemical Abstracts Service (Registry Number)  
**cm<sup>2</sup>** Square Centimetres  
**CO<sub>2</sub>** Carbon Dioxide  
**COD** Chemical Oxygen Demand  
**deg C (°C)** Degrees Celcius  
**EPA (New Zealand)** Environmental Protection Authority of New Zealand  
**deg F (°F)** Degrees Farenheit  
**g** Grams  
**g/cm<sup>3</sup>** Grams per Cubic Centimetre  
**g/l** 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  
**inH<sub>2</sub>O** Inch of Water  
**K** Kelvin  
**kg** Kilogram  
**kg/m<sup>3</sup>** Kilograms per Cubic Metre  
**lb** Pound  
**LC<sub>50</sub>** 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.  
**LD<sub>50</sub>** 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.  
**ltr or L** Litre  
**m<sup>3</sup>** Cubic Metre  
**mbar** Millibar  
**mg** Milligram  
**mg/24H** Milligrams per 24 Hours  
**mg/kg** Milligrams per Kilogram  
**mg/m<sup>3</sup>** Milligrams per Cubic Metre  
**Misc or Miscible** Liquids form one homogeneous liquid phase regardless of the amount of either component present.  
**mm** Millimetre  
**mmH<sub>2</sub>O** 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