



SAFETY DATA SHEET D-LIMONENE REVISION 6, DATE 26 JAN 2023

1. IDENTIFICATION

Product Name	D-Limonene
Other Names	Citrus sinensis; Orange Terpenes; Hydrocarbons, terpene processing by product [CAS#68956-56-9]; Orange, sweet, extract/Sweet orange, peel, tincture [CAS#8028-48-6]; Terpenes and terpenoids, mixed grapefruit oil and shaddock oil [CAS#68917-58-8]; Terpenes and terpenoids, mixed sour and sweet orange oil [CAS#68917-57-7]; Terpenes and terpenoids, orange oil [CAS#68647-72-3]; Terpenes and terpenoids, turpentine oil, limonene fraction [CAS#65996-99-8]
Uses	It can be used to formulate cleaners and as flavour and fragrance ingredient.
Chemical Family	No Data Available
Chemical Formula	C ₁₀ H ₁₆
Chemical Name	Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (R)-
Product Description	A colourless liquid with a neutral citrus odour.

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

Hazard Classification

Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

Hazard Categories

Flammable Liquids - Category 3

Skin Corrosion/Irritation - Category 2

Sensitisation (Skin) - Category 1

Aspiration Hazard - Category 1

Acute Hazard To The Aquatic Environment - Category 1

Long-term Hazard To The Aquatic Environment - Category 1

Pictograms



Signal Word

Danger

Hazard Statements

H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements

Prevention

P233 Keep container tightly closed.
P240 Ground and bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P242 Use non-sparking tools.
P243 Take action to prevent static discharges.
P261 Avoid breathing mist/vapours/spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280 Wear protective gloves/protective clothing/eye protection/face protection and suitable respirator.

Response

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P331 Do NOT induce vomiting.
P333 + P313 If skin irritation or rash occurs: Get medical attention.
P370 + P378 In case of fire: Use sand or water for extinction.
P391 Collect spillage.
P363 Wash contaminated clothing before reuse.

Storage

P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

Disposal

P501 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 & Rail (ADG Code)

Dangerous Goods Classification 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 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
D-Limonene	C10H16	5989-27-5	<=100 %
Hydrocarbons, terpene processing by product	Alternative CAS No.	68956-56-9	No Data Available
Orange, sweet, extract	Alternative CAS No.	8028-48-6	No Data Available
Terpenes and terpenoids, mixed grapefruit oil and shaddock oil	Alternative CAS No.	68917-58-8	No Data Available
Terpenes and terpenoids, mixed sour and sweet orange oil	Alternative CAS No.	68917-57-7	No Data Available
Terpenes and terpenoids, orange oil	Alternative CAS No.	68647-72-3	No Data Available
Terpenes and terpenoids, turpentine oil, limonene fraction	Alternative CAS No.	65996-99-8	No Data Available

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed	IF SWALLOWED: Rinse mouth, then drink plenty of water. Do NOT induce vomiting. Immediately call a Poison Centre or doctor/physician for advice. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain an open airway and prevent aspiration. Never give anything by mouth to an unconscious person.
Eye	IF IN EYES: Do not rub affected area! 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.
Skin	IF ON SKIN (or hair): Immediately flush skin and hair with running water for at least 15 minutes, while removing contaminated clothing and shoes. Wash skin with soap and water. If skin irritation or rash occurs, get medical advice/attention. Wash contaminated clothing and shoes before reuse. *In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin.
Inhaled	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. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Administer oxygen if breathing is difficult.
Advice to Doctor	Treat symptomatically. Keep victim calm and warm. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. *Most important symptoms and effects, both acute and delayed: May be fatal if swallowed and enters airways. Delayed pulmonary edema may occur! Causes skin irritation. May cause and allergic skin reaction.
Medical Conditions Aggravated by Exposure	No information available.

5. FIRE FIGHTING MEASURES

General Measures	If safe to do so, move undamaged containers from fire area. Cool container with water spray until well after fire is out. Avoid getting water inside containers.
Flammability Conditions	FLAMMABLE LIQUID & VAPOUR: Will be easily ignited by heat, sparks or flames.
Extinguishing Media	Use dry chemical, Carbon dioxide (CO ₂), foam or water spray for extinction - Do not use water jets. *CAUTION: This product has a very low flash point: Use of water spray when fighting fire may be inefficient.
Fire and Explosion Hazard	Risk of violent reaction or explosion! Vapours may form explosive mixtures with air. Vapours may travel to source of ignition and flash back. Most vapours are heavier than air and will spread along ground and will collect in low or confined areas. Vapor explosion hazard indoors, outdoors or in sewers! Many liquids are lighter than water. Containers may explode when heated.
Hazardous Products of Combustion	Fire may produce irritating, toxic and/or corrosive gases, including Carbon oxides and other non-identified organic compounds.
Special Fire Fighting Instructions	Contain runoff from fire control or dilution water - Runoff may cause pollution. Vapours from runoff may create an explosion hazard! Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Personal Protective Equipment	Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.
Flash Point	45 - 48 °C
Lower Explosion Limit	0.7 %
Upper Explosion Limit	6.1 %
Auto Ignition Temperature	237 °C
Hazchem Code	3Y

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure	Ensure adequate ventilation - Ventilate enclosed spaces before entering. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). All equipment used in handling the product must be earthed. Do not touch or walk through spilled material. Avoid breathing mist/vapours and contact with eyes, skin and clothing.
Clean Up Procedures	Absorb with earth, sand or other non-combustible material. Use clean, non-sparking tools to collect absorbed material and place it into suitable containers for later disposal (see SECTION 13).
Containment	Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas. Dike far ahead of large spill for later disposal. *Vapour-suppressing foam may be used to control vapours. Water spray may reduce vapour, but may not prevent ignition in closed spaces.
Decontamination	Clean area with soap (detergent) and water.
Environmental Precautionary Measures	Spillages and decontamination runoff should be prevented from entering drains and watercourses.
Evacuation Criteria	Spill or leak area should be isolated immediately. Evacuate personnel to safe areas. Keep unauthorised/unprotected personnel away. Keep upwind and to higher ground. *Large spill: Immediately contact Police or Fire Brigade. Consider initial downwind evacuation for at least 300 m.
Personal Precautionary Measures	SCBA and gas-tight suits should be worn when dealing with damaged or leaking containers and where there is no risk of ignition. SCBA and structural firefighting uniform provide limited protection where there is a risk of ignition.

7. HANDLING AND STORAGE

Handling	Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure
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adequate ventilation, especially in confined areas. Handle in accordance with good industrial hygiene and safety practice. Avoid breathing mist/vapours and contact with eyes, skin and clothing. Do not ingest. Wear protective gloves/protective clothing/eye protection/face protection and suitable respirator (see SECTION 8). FLAMMABLE LIQUID & VAPOUR: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources - No smoking. Ground and bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharges. Avoid release to the environment - Collect spillage (see SECTION 6).

Storage

Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources - No smoking. Keep away from foodstuffs and incompatible materials (see SECTION 10). Store locked up.

Container

Keep in the original, properly labelled container.

*Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers. Dispose of in accordance with federal, state and local regulations.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**General**

No specific exposure standards are available for this product.

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: Organic vapour respirator (refer to AS/NZS 1715 & 1716).
- Eye/face protection: Wear appropriate eye protection to avoid eye contact. Recommended: Use safety glasses and face shield, if required.
- Hand protection: Wear protective gloves. Recommended: Use chemically-resistant gloves.
- Skin/body protection: Wear appropriate personal protective clothing to prevent skin contact. Recommended: Overalls, safety shoes.

Special Hazards Precautions

Vapour heavier than air – prevent concentration in hollows or sumps. Do NOT enter confined spaces where vapour may have collected.

Work Hygienic Practices

Do not eat, drink or smoke when using this product. Wash the hands thoroughly after handling and before eating, drinking or smoking. Contaminated clothing must be changed and washed before reuse. Contaminated work clothing should not be allowed out of the workplace.

9. PHYSICAL AND CHEMICAL PROPERTIES**Physical State**

Liquid

Appearance

Liquid

Odour

Characteristic, citrus

Colour

Colourless to pale yellow

pH

No Data Available

Vapour Pressure

approx. 2 mmHg (@ 25 °C)

Relative Vapour Density

approx. 4.7 Air = 1

Boiling Point

approx. 175 °C

Melting Point

-90 °C

Freezing Point

approx. -74 °C

Solubility

Immiscible with water - Soluble in ethanol

Specific Gravity

0.835 - 0.845

Flash Point

45 - 48 °C

Auto Ignition Temp	237 °C
Evaporation Rate	approx. 5.8 (Diethyl ether = 1)
Bulk Density	No Data Available
Corrosion Rate	No Data Available
Decomposition Temperature	No Data Available
Density	No Data Available
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	No information available.
Potential for Dust Explosion	Not applicable.
Fast or Intensely Burning Characteristics	Risk of violent reaction or explosion!
Flame Propagation or Burning Rate of Solid Materials	No information available.
Non-Flammables That Could Contribute Unusual Hazards to a Fire	Combustible material that has been soaked with D-Limonene may spontaneously combust.
Properties That May Initiate or Contribute to Fire Intensity	FLAMMABLE LIQUID & VAPOUR: May be ignited by heat, sparks or flames.
Reactions That Release Gases or Vapours	Fire/decomposition may produce irritating, toxic and/or corrosive gases, including Carbon oxides and other non-identified organic compounds.
Release of Invisible Flammable Vapours and Gases	Vapours may form explosive mixtures with air.

10. STABILITY AND REACTIVITY

General Information	Peroxides formed by oxidation may present an explosion hazard if they become highly concentrated through distillation.
Chemical Stability	Stable under normal conditions of storage and use.
Conditions to Avoid	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
Materials to Avoid	Incompatible/reactive with strong oxidising agents, acidic clays and mineral acids.
Hazardous Decomposition Products	Fire/decomposition may produce irritating, toxic and/or corrosive gases, including Carbon oxides and other non-identified organic compounds.
Hazardous Polymerisation	Hazardous polymerisation will not occur.

11. TOXICOLOGICAL INFORMATION

General Information	Information on toxicological effects: - Acute toxicity: May be harmful if swallowed.
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- Skin corrosion/irritation: Causes skin irritation.
- Eye damage/irritation: No information available.
- Respiratory/skin sensitisation: May cause an allergic skin reaction.
- Germ cell mutagenicity: No information available.
- Carcinogenicity: No information available.
- Reproductive toxicity: No damage to embryo or foetus when exposure values are observed.
- STOT (single exposure): No information available.
- STOT (repeated exposure): No information available.
- Aspiration toxicity: May be fatal if swallowed and enters airways.

Information on likely routes of exposure:

- Ingestion: May be fatal if swallowed and enters airways. May cause gastrointestinal irritation, abdominal pain, nausea, vomiting, diarrhoea, drowsiness, dizziness.
 - Eye contact: May cause eye irritation, reddening.
 - Skin contact: May cause reddening, swelling, blistering. Product has a degreasing effect; Repeated exposure may cause skin dryness. May cause an allergic skin reaction.
 - Inhalation: May cause irritation to the respiratory tract. May cause respiratory disruptions, sore throat, coughing, shortness of breath, drowsiness, dizziness, nausea.
- Chronic effects: No information available.

Acute

Ingestion	Acute toxicity (Oral): - LD50, Rat: 4,400 - 52,00 mg/kg [Supplier's SDS].
Carcinogen Category	None

12. ECOLOGICAL INFORMATION

Ecotoxicity	Aquatic toxicity: - LC50, Fish (Pimephales promelas): 0.619 - 0.796 mg/L (96 h). - EC50, Crustacea (Daphnia magna): 0.577 mg/L (48 h).
Persistence/Degradability	The material is partially biodegradable.
Mobility	No information available.
Environmental Fate	Very toxic to aquatic life with long lasting effects - Avoid release to the environment.
Bioaccumulation Potential	Risk of bioaccumulation in an aquatic species is high.
Environmental Impact	No Data Available

13. DISPOSAL CONSIDERATIONS

General Information	Dispose of by incineration or landfill and in accordance with local/regional/national regulations.
Special Precautions for Land Fill	Empty containers should be washed thoroughly with detergent and water before being sent for reconditioning or disposal. The washing should be treated as trade effluent.

14. TRANSPORT INFORMATION

Land Transport (Australia)

ADG Code

Proper Shipping Name	TERPENE HYDROCARBONS, N.O.S. (d-Limonene)
Class	3 Flammable Liquids

Subsidiary Risk(s)	No Data Available
EPG	15 Liquids - Flammable
UN Number	2319
Hazchem	3Y
Pack Group	III
Special Provision	No Data Available

Land Transport (Malaysia)

ADR Code

Proper Shipping Name	TERPENE HYDROCARBONS, N.O.S. (d-Limonene)
Class	3 Flammable Liquids
Subsidiary Risk(s)	No Data Available
EPG	15 Liquids - Flammable
UN Number	2319
Hazchem	3Y
Pack Group	III
Special Provision	No Data Available

Land Transport (New Zealand)

NZS5433

Proper Shipping Name	TERPENE HYDROCARBONS, N.O.S. (d-Limonene)
Class	3 Flammable Liquids
Subsidiary Risk(s)	No Data Available
EPG	15 Liquids - Flammable
UN Number	2319
Hazchem	3Y
Pack Group	III
Special Provision	No Data Available

Land Transport (United States of America)

US DOT

Proper Shipping Name	TERPENE HYDROCARBONS, N.O.S. (d-Limonene)
Class	3 Flammable Liquids
Subsidiary Risk(s)	No Data Available
ERG	128 Flammable Liquids (Non-Polar / Water-Immiscible)
UN Number	2319
Hazchem	3Y
Pack Group	III
Special Provision	No Data Available

Sea Transport

IMDG Code

Proper Shipping Name	TERPENE HYDROCARBONS, N.O.S. (d-Limonene)
Class	3 Flammable Liquids
Subsidiary Risk(s)	No Data Available
UN Number	2319
Hazchem	3Y
Pack Group	III

Special Provision	No Data Available
EMS	F-E, S-D
Marine Pollutant	Yes

Air Transport

IATA DGR

Proper Shipping Name	TERPENE HYDROCARBONS, N.O.S. (d-Limonene)
Class	3 Flammable Liquids
Subsidiary Risk(s)	No Data Available
UN Number	2319
Hazchem	3Y
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	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	HSR002495 - Additives, Process Chemicals and Raw Materials (Flammable) Group Standard 2020
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National/Regional Inventories

Australia (AIC)	Listed
Canada (DSL)	Not Determined
Canada (NDSL)	Not Determined
China (IECSC)	Not Determined
Europe (EINECS)	232-433-8
Europe (REACH)	Not Determined
Japan (ENCS/METI)	Not Determined
Korea (KECI)	Not Determined
Malaysia (EHS Register)	Not Determined

New Zealand (NZIoC)	Listed
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	LIMONE0092, LIMONE0381, LIMONE0390, LIMONE1000, LIMONE1001, LIMONE1002, LIMONE1003, LIMONE1004, LIMONE1390, LIMONE1395, LIMONE1500, LIMONE1800, LIMONE1801, LIMONE1802, LIMONE1803, LIMONE1804, LIMONE1805, LIMONE1806, LIMONE1807, LIMONE1808, LIMONE1809, LIMONE1810, LIMONE1811, LIMONE1812, LIMONE1813, LIMONE1814, LIMONE1815, LIMONE1816, LIMONE1817, LIMONE1818, LIMONE1819, LIMONE1820, LIMONE1821, LIMONE1822, LIMONE1823, LIMONE1824, LIMONE1825, LIMONE1826, LIMONE1830, LIMONE1895, LIMONE2000, LIMONE2001, LIMONE2002, LIMONE2003, LIMONE2004, LIMONE2005, LIMONE2006, LIMONE2007, LIMONE3000, LIMONE3001, LIMONE3002, LIMONE3003, LIMONE3010, LIMONE3011, LIMONE3012, LIMONE3020, LIMONE3091, LIMONE3092, LIMONE3094, LIMONE3095, LIMONE3100, LIMONE3500, LIMONE3501, LIMONE3600, LIMONE4000, LIMONE4500, LIMONE4501, LIMONE4502, LIMONE4900, LIMONE5000, LIMONE5001, LIMONE5300, LIMONE5400, LIMONE5500, LIMONE5501, LIMONE5594, LIMONE5600, LIMONE5601, LIMONE5650, LIMONE5700, LIMONE5800, LIMONE6000, LIMONE6001, LIMONE6002, LIMONE6050, LIMONE6500, LIMONE7000, LIMONE7001, LIMONE7094, LIMONE7700, LIMONE8000, LIMONE8100, LIMONE8200, LIMONE9000, LIMONE9500
Revision	6
Revision Date	26 Jan 2023
Reason for Issue	Updated SDS
Key/Legend	< Less Than > Greater Than AICS Australian Inventory of Chemical Substances atm Atmosphere CAS Chemical Abstracts Service (Registry Number) cm² Square Centimetres CO₂ 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/cm³ 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 inH₂O Inch of Water K Kelvin kg Kilogram kg/m³ Kilograms per Cubic Metre lb Pound LC₅₀ LC stands for lethal concentration. LC ₅₀ 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. LD₅₀ LD stands for Lethal Dose. LD ₅₀ 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 m³ Cubic Metre

mbar Millibar

mg Milligram

mg/24H Milligrams per 24 Hours

mg/kg Milligrams per Kilogram

mg/m³ Milligrams per Cubic Metre

Misc or **Miscible** Liquids form one homogeneous liquid phase regardless of the amount of either component present.

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 Health 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