

#### 1. IDENTIFICATION

**Product Name Monoethylene Glycol** 

**Other Names** EG; Ethylene glycol; Glycol; MEG

Uses Cleaning/washing products; brake fluids; anti-freeze agents; corrosion inhibitors.

**Chemical Family** No Data Available

**Chemical Formula** C2H6O2 **Chemical Name** 1,2-Ethanediol **Product Description** No Data Available

**Contact Details of the Supplier of this Safety Data Sheet** 

Organisation Location Telephone Redox Ltd 2 Swettenham Road +61-2-97333000

> Minto NSW 2566 Australia

Redox Ltd 11 Mayo Road +64-9-2506222

> Wiri Auckland 2104 New Zealand

3960 Paramount Boulevard Redox Inc. +1-424-675-3200

Suite 107

Lakewood CA 90712

USA

Redox Chemicals Sdn Bhd Level 2, No. 8, Jalan Sapir 33/7 +60-3-5614-2111

Seksyen 33, Shah Alam Premier Industrial Park

40400 Shah Alam Sengalor, Malaysia

# **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 +64-4-9179888 Chemcall Malaysia 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) Schedule 6





### **Globally Harmonised System**

Hazard Classification Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of

Chemicals (GHS)

Hazard Categories Acute Toxicity (Oral) - Category 4

Serious Eye Damage/Irritation - Category 2B

Specific Target Organ Toxicity (Single Exposure) - Category 3 Specific Target Organ Toxicity (Repeated Exposure) - Category 1

**Pictograms** 





Signal Word Danger

Response

Hazard Statements H302 Harmful if swallowed.

**H320** Causes eye irritation.

**H335** May cause respiratory irritation.

**H372** Causes damage to organs through prolonged or repeated exposure.

Precautionary Statements Prevention P260 Do not breathe mist/vapour/spray.

**P264** Wash hands thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P312 Call a POISON CENTER or doctor if you feel unwell.

P330 Rinse mouth.

**P304 + P340** IF INHALED: Remove victim to fresh air and keep comfortable for breathing.

**P337 + P313** If eye irritation persists: Get medical advice.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses,

if present and easy to do. Continue rinsing.

**P314** Get medical attention if you feel unwell.

Storage P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

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**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 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 glycol	C2H6O2	107-21-1	<=100 %

#### 4. FIRST AID MEASURES

## Description of necessary measures according to routes of exposure

**Swallowed** IF SWALLOWED: Rinse mouth with water. Do not induce vomiting. Call a Poison Centre or doctor/physician for advice.

Immediate medical attention is required! Never give anything by mouth to an unconscious person.

Eye 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.

Skin 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.

Inhaled IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a Poison Centre or

doctor/physician for advice. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.

**Advice to Doctor** Treat symptomatically and supportively. For advice, contact a Poisons Information Centre (e.g. phone Australia 13 11 26;

> New Zealand 0800 764 766) or a doctor. Following ingestion, urgent hospital treatment is likely to be needed! Ethylene glycol can cause central nervous system depression and metabolic acidosis. Consider removal by gastric lavage.

Blockade of the diacid/hydroxy acid metabolites may follow competitive inhibition of alcohol dehydrogenase with ethanol

or 4-methyl pyrazole. Consider maintenance of a plasma ethanol level of 100 mg/dL to 150 mg/dL.

\*Most important symptoms and effects, both acute and delayed: The substance is irritating to the eyes and respiratory tract. The substance may cause effects on the kidneys, central nervous system and acid-base balance in the body. This may result in renal failure, brain injury and metabolic acidosis. Exposure could cause lowering of consciousness. Symptoms may include irritation (eyes, skin, nose, throat); nausea, vomiting, abdominal pain, lassitude (weakness,

exhaustion); dizziness, stupor, convulsions, central nervous system depression.

Medical Conditions Aggravated by No information available.

**Exposure** 

# **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.

Dike fire-control water for later disposal.

**Flammability Conditions** Combustible liquid; May burn but does not ignite readily.

**Extinguishing Media** Use dry chemical, Carbon dioxide (CO2), foam or water spray for extinction - Do not scatter spilled material with high-

pressure water streams.

Fire and Explosion Hazard Containers may explode when heated.

**Hazardous Products of** 

Combustion phosgene.

Fire may produce irritating and/or toxic gases, including Carbon monoxide, Carbon dioxide, Hydrogen chloride,

**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** >111 °C [Closed cup]

**Lower Explosion Limit** 3.2 % **Upper Explosion Limit** 15 3 % 400 °C **Auto Ignition Temperature** 

No Data Available

**Hazchem Code** 

#### **6. ACCIDENTAL RELEASE MEASURES**

General Response Procedure Ensure adequate ventilation. ELIMINATE all ignition sources. Do not touch or walk through spilled material. Do not

breathe mist/vapours and avoid contact with eyes, skin and clothing.

Clean Up Procedures Absorb with earth, sand or other non-combustible material and transfer to a suitable, properly labelled container for

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.

\*Vapours can accumulate in low areas. Beware of vapours accumulating to form explosive concentrations!

**Decontamination**Clean contaminated objects and areas thoroughly observing environmental regulations.

**Environmental Precautionary** 

Measures

Prevent entry into drains and waterways.

Evacuation Criteria Spill or leak area should be isolated immediately. Evacuate personnel to safe areas. Keep unauthorised personnel away.

Stay upwind of spilled material.

#### 7. HANDLING AND STORAGE

**Handling** Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure

adequate ventilation - Use only outdoors or in a well-ventilated area. Handle in accordance with good industrial hygiene and safety practice. Do not breathe mist/vapours and avoid 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.

Storage Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep container tightly closed. Opened containers

must be carefully resealed to prevent leakage. Avoid humidity. Protect from physical damage. Keep away from heat and sources of ignition - No smoking. Keep away from foodstuffs and incompatible materials (see SECTION 10). Store locked

up.

**Container** Keep in the original, properly labelled containers.

#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**General** For Ethylene glycol (CAS No. 107-21-1):

- Safe Work Australia Exposure Standard (particulate): TWA = 10 mg/m3; Absorption through the skin may be a significant source of exposure (Sk).

- Safe Work Australia Exposure Standard (vapour): TWA = 20 ppm (52 mg/m3); STEL = 40 ppm (104 mg/m3); Absorption through the skin may be a significant source of exposure (Sk).

- New Zealand Workplace Exposure Standard (vapour and mist) [Next review 2023]: Ceiling 50 ppm (127 mg/m3).

**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: Approved full-

face air-purifying cartridge (organic vapour) respirator may be appropriate under limited exposure conditions. Wear an approved supplied-air respirator if there is a potential for uncontrolled release, exposure levels are not known or in other circumstances where air-purifying respirators may not provide adequate protection (refer to AS/NZS 1715 & 1716).

- Eye/face protection: Wear appropriate eye protection to avoid eye contact. Recommended: Safety glasses with side-

shields, goggles, face-shield, as appropriate.

- Hand protection: Handle with gloves. Recommended: Recommended: Impervious, chemical-resistant gloves.
- Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Apron and/or suitable long-sleeved clothing, e.g. overalls, boots.

**Special Hazards Precaustions** 

No information available.

**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.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical State** Liquid Liquid **Appearance** Odour Mild, sweet Colour Colourless pН 7 (25°C)

**Vapour Pressure** 0.05 hPa (@ 20 °C)

**Relative Vapour Density** 2.14 Air = 1**Boiling Point** 193 - 198 °C **Melting Point** No Data Available

**Freezing Point** -13 °C

Solubility Completely soluble in water

**Specific Gravity** 1.1 (Water = 1) Flash Point >111 °C [Closed cup]

400 °C **Auto Ignition Temp** 

**Evaporation Rate** <0.002 (butyl acetate = 1)

**Bulk Density** No Data Available **Corrosion Rate** No Data Available **Decomposition Temperature** No Data Available No Data Available Density **Specific Heat** No Data Available **Molecular Weight** 62.07 g/mol **Net Propellant Weight** No Data Available **Octanol Water Coefficient** log Pow: -1.36 **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** 

Negligible

**VOC Volume** No Data Available

**Additional Characteristics** Hygroscopic (i.e. absorbs moisture from the air).

**Potential for Dust Explosion** Not applicable.

**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

Combustible liquid; may burn but does not ignite readily.

Reactions That Release Gases or Vapours

Fire/decomposition may produce irritating and/or toxic gases, including Carbon monoxide, Carbon dioxide, Hydrogen chloride, phosgene.

Release of Invisible Flammable Vapours and Gases

Vapours can accumulate in low areas. Beware of vapours accumulating to form explosive concentrations!

### 10. STABILITY AND REACTIVITY

**General Information** No information available.

**Chemical Stability** Stable under recommended storage conditions.

**Conditions to Avoid** Keep away from heat and sources of ignition. Avoid moisture.

Materials to Avoid Incompatible/reactive with strong oxidisers, strong acids, strong bases, aluminium and aldehydes.

**Hazardous Decomposition** 

**Products** 

Fire/decomposition may produce irritating and/or toxic gases, including Carbon monoxide, Carbon dioxide, Hydrogen

chloride, phosgene.

**Hazardous Polymerisation** 

Not expected to occur.

#### 11. TOXICOLOGICAL INFORMATION

#### **General Information**

Information on toxicological effects:

- Acute toxicity: Harmful if swallowed. While the available animal data do not support this classification, poisoning (deliberate/accidental) data from humans indicate that the chemical has moderate toxicity by the oral route of exposure.
- Skin corrosion/irritation: The available data show that the chemical is a mild skin irritant in animals (Rabbits, Guinea pigs).
- Serious eye damage/irritation: Causes eye irritation. The available data indicate that the chemical is a mild eye irritant in animals.
- Respiratory/skin sensitisation: The chemical was not found to induce dermal sensitisation when tested according to OECD TG 406.
- Germ cell mutagenicity: Based on the weight of evidence from the available in vitro and in vivo genotoxicity studies the chemical is not considered to be genotoxic.
- Carcinogenicity: Based on the available data, ethylene glycol is not considered to be a carcinogen.
- Reproductive toxicity: The chemical does not show specific developmental toxicity. The chemical is not toxic to reproduction.
- STOT (single exposure): May cause respiratory irritation.
- STOT (repeated exposure): Causes damage to organs through prolonged or repeated exposure (kidneys and central nervous system).
- Aspiration toxicity: No information available.

Information on likely routes of exposure:

- Ingestion: Harmful if swallowed. Symptoms may include sore throat, nausea, vomiting, abdominal pain, drowsiness, unconsciousness.
- Eye contact: Causes eye irritation, redness, pain.
- Skin contact: Can be absorbed through the skin with resultant adverse effects. May cause skin irritation, redness.
- Inhalation: May cause respiratory irritation, cough, dizziness, headache.

Chronic effects: Causes damage to organs through prolonged or repeated exposure (kidneys and central nervous system).

### Acute

**Ingestion** Acute toxicity (Oral):

- LD50, Rats: >2,000 mg/kg bw. [NICNAS].
- Lethal dose in humans (estimated): 1,400 1,600 mg/kg bw. [NICNAS].

Carcinogen Category

None

### 12. ECOLOGICAL INFORMATION

**Ecotoxicity** Aquatic toxicity:

LC50, Fish (Rainbow trout): 18,500 mg/L (96 h).NOEC, Fish (Minnow): 39,140 mg/L (96 h).

- EC50, Crustacea (Daphnia magna): 74,000 mg/L (24 h).

Persistence/Degradability Readily biodegradable.

Mobility No information available.

**Environmental Fate** Slightly hazardous to water - Prevent entry into drains and waterways.

Bioaccumulation Potential Does not bioaccumulate.

Environmental Impact No Data Available

#### 13. DISPOSAL CONSIDERATIONS

General Information Dispose of contents/container through a licensed waste contractor and in accordance with local/regional/national

regulations. Normally suitable for incineration by an approved agent.

Special Precautions for Land Fill Contaminated packaging: Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld

containers. Empty containers should be taken to an approved waste handling site for recycling or disposal.

### 14. TRANSPORT INFORMATION

# Land Transport (Australia)

ADG Code

**Proper Shipping Name** Monoethylene Glycol

Class C2 Combustible Liquids - Flash Point >93°C, Closed Cup, Not Excluded Flammable

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.

No Data Available

Land Transport (Malaysia)

ADR Code

**UN Number** 

Proper Shipping Name Monoethylene Glycol
Class No Data Available
Subsidiary Risk(s) No Data Available
No Data Available

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HazchemNo Data AvailablePack GroupNo Data AvailableSpecial ProvisionNo Data Available

**Comments** NON-DANGEROUS GOODS: Not regulated for LAND transport.

# Land Transport (New Zealand)

NZS5433

Proper Shipping Name

Class

No Data Available

Subsidiary Risk(s)

No Data Available

No Data Available

UN Number

No Data Available

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
Class
No Data Available
Subsidiary Risk(s)
No Data Available
No Data Available
UN Number
No Data Available

HazchemNo Data AvailablePack GroupNo Data AvailableSpecial ProvisionNo Data Available

Comments NON-DANGEROUS GOODS: Not regulated for LAND transport.

# **Sea Transport**

IMDG Code

**Proper Shipping Name** Monoethylene Glycol 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

Proper Shipping NameMonoethylene GlycolClassNo Data AvailableSubsidiary Risk(s)No Data AvailableUN NumberNo Data Available

HazchemNo Data AvailablePack GroupNo Data AvailableSpecial ProvisionNo 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)

### 15. REGULATORY INFORMATION

**General Information** ETHYLENE GLYCOL

Poisons Schedule (Aust) Schedule 6

# **Environmental Protection Authority (New Zealand)**

Hazardous Substances and New Organisms Amendment Act 2015

Approval Code HSR001534

### **National/Regional Inventories**

Australia (AIIC) Listed

Canada (DSL) Listed

Canada (NDSL) Not Determined

China (IECSC) Listed

Europe (EINECS) 107-21-1

Europe (REACh) Not Determined

Japan (ENCS/METI) Listed

Korea (KECI) Listed

Malaysia (EHS Register) Not Determined

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**

MOETGB1000, MOETGB2000, MOETGB3000, MOETGB3500, MOETGB4000, MOETGB5000, MOETGB6000, MOETGB7500, MOETGB8000, MOETGB9000, MOETGL0600, MOETGL0700, MOETGL0800, MOETGL0900, MOETGL0910, MOETGL0920, MOETGL0930, MOETGL1000, MOETGL1001, MOETGL1002, MOETGL1003, MOETGL1004, MOETGL1005, MOETGL1006, MOETGL1007, MOETGL1008, MOETGL1009, MOETGL1010, MOETGL1011, MOETGL1012, MOETGL1013, MOETGL1014, MOETGL1015, MOETGL1016, MOETGL1017, MOETGL1018, MOETGL1019, MOETGL1020, MOETGL1021, MOETGL1022, MOETGL1023, MOETGL1024, MOETGL1025, MOETGL1026, MOETGL1027, MOETGL1028, MOETGL1029, MOETGL1047, MOETGL1049, MOETGL1050, MOETGL1055, MOETGL1056, MOETGL1100, MOETGL1101, MOETGL1200, MOETGL1300, MOETGL1400, MOETGL1500, MOETGL1501, MOETGL1502, MOETGL1600, MOETGL1601, MOETGL1610, MOETGL1625, MOETGL1650, MOETGL1700, MOETGL1800, MOETGL1801, MOETGL1802, MOETGL1803, MOETGL1900, MOETGL1901, MOETGL2000, MOETGL2001, MOETGL2010, MOETGL2020, MOETGL2030, MOETGL2100, MOETGL2200, MOETGL2300, MOETGL2301, MOETGL2350, MOETGL2400, MOETGL2401, MOETGL2402, MOETGL2500, MOETGL2501, MOETGL2502, MOETGL2503, MOETGL2504, MOETGL2505, MOETGL2510, MOETGL2520, MOETGL2550, MOETGL2560, MOETGL2600, MOETGL2601, MOETGL2700, MOETGL2701, MOETGL2702, MOETGL2800, MOETGL2900, MOETGL3000, MOETGL3001, MOETGL3010, MOETGL3011, MOETGL3012, MOETGL3013, MOETGL3020, MOETGL3030, MOETGL3040, MOETGL3041, MOETGL3100, MOETGL3150, MOETGL3200, MOETGL3201, MOETGL3300, MOETGL3400, MOETGL3401, MOETGL3500, MOETGL3600, MOETGL3700, MOETGL3710, MOETGL3720, MOETGL3730, MOETGL4000, MOETGL4200, MOETGL4400, MOETGL4500, MOETGL4700, MOETGL4800, MOETGL4810, MOETGL4900, MOETGL5001, MOETGL5002, MOETGL5003, MOETGL5004, MOETGL5050, MOETGL5100, MOETGL5110, MOETGL5120, MOETGL5130, MOETGL5500, MOETGL5700, MOETGL5800, MOETGL5805, MOETGL5810, MOETGL5820, MOETGL5830, MOETGL5840, MOETGL6000, MOETGL6100, MOETGL6150, MOETGL6200, MOETGL6500, MOETGL6700, MOETGL6800, MOETGL7000, MOETGL7200, MOETGL7210, MOETGL7215, MOETGL7400, MOETGL7500, MOETGL7600, MOETGL8000, MOETGL8001, MOETGL8500, MOETGL9000, MOETGL9800, MOETGL9900

Revision

**Revision Date** 

Key/Legend

5

17 Mar 2022 < 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

**q** Grams

g/cm³ 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.

inHq Inch of Mercury

inH20 Inch of Water

K Kelvin

kg Kilogram

kg/m³ Kilograms per Cubic Metre

**Ib** Pound

**LC50** LC stands for lethal concentration. LC50 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. LD50 is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.

Itr 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

mmH20 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