

1. IDENTIFICATION

Product Name	Diethylamine
Other Names	Ethanamine, N-Ethyl-; N,N-Diethylamine
Uses	Chemical used in synthesis and/or formulation of industrial products
Chemical Family	No Data Available
Chemical Formula	C4H11N
Chemical Name	Diethylamine
Product Description	No Data Available

Contact Details of the Supplier of this Safety Data Sheet

Organisation	Location	Telephone
Redox Pty Ltd	2 Swettenham Road Minto NSW 2566 Australia	+61-2-97333000
Redox Pty 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 2 Acute Toxicity (Inhalation) - Category 4 Acute Toxicity (Oral) - Category 4 Skin Corrosion/Irritation - Category 1A Acute Toxicity (Dermal) - Category 4	
Pictograms		
Signal Word	Danger	
Hazard Statements	H225	Highly flammable liquid and vapour.
	H302	Harmful if swallowed.
	H312	Harmful in contact with skin.
	H314	Causes severe skin burns and eye damage.
	H332	Harmful if inhaled.
Precautionary Statements	Prevention	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233 Keep container tightly closed. P240 Ground/bond container and receiving equipment. P241 Use explosion-proof electrical/ventilating/lighting and all other equipment. P242 Use only non-sparking tools. P243 Take precautionary measures against static discharge. P260 Do not breathe fume/gas/mist/vapours/spray. P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/protective clothing/eye protection/face protection and suitable respirator.
	Response	P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P303 + P361 + P353 IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. P304 + P312 IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell. P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER or doctor/physician. P321 Specific treatment (see First Aid Measures on Safety Data Sheet). P322 Specific measures (see First Aid Measures on Safety Data Sheet). P330 Rinse mouth. P363 Wash contaminated clothing before reuse. P370 + P378 In case of fire: Use extinguishing media as outlined in Section 5 of this Safety Data Sheet to extinguish
	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)

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

HSNO Classifications			
Physical Hazards	3.1B		Flammable liquid - high hazard
Health Hazards	6.1C		Substances that are acutely toxic- Toxic
	6.5B		Substances that are contact sensitisers
	6.9B		Substances that are harmful to human target organs or systems
	8.2B		Substances that are corrosive to dermal tissue UN PGII
	8.3A		Substances that are corrosive to ocular tissue
Environmental Hazards	9.1D		Substances that are slightly harmful to the aquatic environment or are otherwise designed for biocidal action
	9.2B		Substances that are ecotoxic in the soil environment
	9.3B		Substances that are ecotoxic to terrestrial vertebrates

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Diethylamine	No Data Available	109-89-7	100.0 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed	Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.
Eye	Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.
Skin	Immediately wash thoroughly with plenty of water, apply sterile dressings, consult a skin specialist.
Inhaled	Keep patient calm, remove to fresh air, seek medical attention. Immediately administer a corticosteroid from a controlled/metered dose inhaler.
Advice to Doctor	First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing. Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., Further symptoms are possible Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.
Medical Conditions Aggravated by Exposure	No information available on medical conditions aggravated by exposure to this product.

5. FIRE FIGHTING MEASURES

General Measures	Flame-proof equipment is necessary in all areas where this chemical is being used. Nearby equipment must be earthed.
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Flammability Conditions	Highly flammable liquid and vapour.
Extinguishing Media	In case of fire, appropriate extinguishing media include water spray, foam, dry powder, carbon dioxide (CO2). Unsuitable media include water jet. Cool endangered containers with water-spray.
Fire and Explosion Hazard	Self ignition: Based on its structural properties the product is not classified as selfigniting (Test type: Spontaneous selfignition at room-temperature). Self heating ability: It is not a substance capable of spontaneous heating. Explosion hazard: Based on the chemical structure there is no indicating of explosive properties. Fire promoting properties: Based on its structural properties the product is not classified as oxidizing.
Hazardous Products of Combustion	Carbon monoxide, carbon dioxide, nitrogen oxides , nitrous gases.
Special Fire Fighting Instructions	Clear fire area of all non-emergency personnel. Stay upwind. Keep out of low areas. Eliminate ignition sources. Move fire exposed containers from fire area if it can be done without risk. Do NOT allow fire fighting water to reach waterways, drains or sewers. Store fire fighting water for treatment.
Personal Protective Equipment	Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves) or chemical splash suit.
Flash Point	-34 °C ISO 3679
Lower Explosion Limit	For liquids not relevant for classification and la
Upper Explosion Limit	No Data Available
Auto Ignition Temperature	312 °C
Hazchem Code	•2WE

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure	Shut off all possible sources of ignition. Avoid accidents, clean up immediately. Increase ventilation. Avoid walking through spilled product as it is slippery when spilt.
Clean Up Procedures	For small amounts: Pick up with absorbent material (e.g. sand, sawdust, general-purpose binder). For large amounts: Pump off product.
Containment	Stop leak if safe to do so.
Decontamination	Cleaning operations should be carried out only while wearing breathing apparatus. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations. Collect waste in suitable containers, which can be labelled and sealed. Incinerate or take to a special waste disposal site in accordance with local authority regulations.
Environmental Precautionary Measures	Do not discharge into drains/surface waters/groundwater. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Management
Evacuation Criteria	Evacuate all unnecessary personnel.
Personal Precautionary Measures	Avoid inhalation. Avoid contact with the skin, eyes and clothing. Personnel involved in the clean up should wear full protective clothing as listed in section 8.

7. HANDLING AND STORAGE

Handling	Ensure thorough ventilation of stores and work areas. Provide good room ventilation even at ground level (vapours are heavier than air). Take precautionary measures against static discharges. Protection against fire and explosion: Vapours may form explosive mixture with air. Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy.
Storage	Store in a cool, dry, well-ventilated, fire-proof area. Keep containers tightly sealed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage. Ground and bond storage containers. Store away from incompatible materials as listed in section 10. Segregate from acids and acid forming substances. Segregate from foods and animal feeds. Keep container tightly closed in a cool, well-ventilated place. Keep container dry. This product has a UN Classification of 1154 and a Dangerous Goods Class 3 (flammable), sub class 8 (Corrosive) according to The Australian Code for the Transport of Dangerous Goods By Road and Rail
Container	Container type/packageing must comply with all applicable local legislation. Store in original packaging as approved by manufacturer.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	<p>The following exposure standard has been established by The Australian Safety and Compensation Council (ASCC); Diethylamine (Ethanamine, N-ethyl) CAS 109-89-7: TWA = 10 ppm (30 mg/m³) STEL = 25 ppm (75 mg/m³) NOTE: The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. These exposure standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.</p>
Exposure Limits	No Data Available
Biological Limits	No information available on biological limit values for this product.
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. Use an explosion proof exhaust ventilation system.
Personal Protection Equipment	<p>RESPIRATOR: Gas filter for gases/vapours of organic compounds (boiling point <65 deg C, f.e. EN 14387 Type AX) (AS1715/1716). EYES: Tightly fitting safety goggles (cage goggles) and face shield (AS1336/1337). HANDS: Chemical resistant protective gloves. Suitable materials short-term contact and/or splashes (recommended: At least protective index 2, corresponding > 30 minutes of permeation time according to EN 374) fluoroelastomer (FKM) - 0.7 mm coating thickness. Manufacturer's directions for use should be observed because of great diversity of types. Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing (AS2161). CLOTHING: Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust) and safety footwear (AS3765/2210).</p>
Work Hygienic Practices	Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is required additionally to the stated personal protection equipment. Avoid contact with the skin, eyes and clothing. Do not breathe vapour/spray. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin and eyes. Take off immediately all contaminated clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Liquid
Odour	Amine-like
Colour	Colourless to Yellow
pH	13 100 g/L (20 deg C)
Vapour Pressure	316 hPa torr (@ 25 °C)
Relative Vapour Density	No Data Available
Boiling Point	53.5 - 56.1 °C
Melting Point	-50 °C
Freezing Point	No Data Available
Solubility	Miscible 25°C
Specific Gravity	No Data Available
Flash Point	-34 °C ISO 3679
Auto Ignition Temp	312 °C
Evaporation Rate	No Data Available
Bulk Density	No Data Available
Corrosion Rate	No Data Available
Decomposition Temperature	No Data Available
Density	0.71 g/cm ³

Specific Heat	No Data Available
Molecular Weight	73.14 g/mol
Net Propellant Weight	No Data Available
Octanol Water Coefficient	log Kow: 0.58 (Measured. Literature data)
Particle Size	No Data Available
Partition Coefficient	No Data Available
Saturated Vapour Concentration	No Data Available
Vapour Temperature	No Data Available
Viscosity	0.319 mPa.s (@ 25 °C)
Volatile Percent	No Data Available
VOC Volume	No Data Available
Additional Characteristics	pKA: 11.09 (20 deg C) Relative density: 0.71 (20 deg C) Surface tension: Based on chemical structure, surface activity is not to be expected.
Potential for Dust Explosion	Product is a liquid.
Fast or Intensely Burning Characteristics	No Data Available
Flame Propagation or Burning Rate of Solid Materials	No Data Available
Non-Flammables That Could Contribute Unusual Hazards to a Fire	No Data Available
Properties That May Initiate or Contribute to Fire Intensity	No Data Available
Reactions That Release Gases or Vapours	No Data Available
Release of Invisible Flammable Vapours and Gases	No Data Available

10. STABILITY AND REACTIVITY

General Information	Highly Flammable Liquid.
Chemical Stability	Product is stable under normal conditions of use, storage and temperature.
Conditions to Avoid	Reacts with acids. The progress of reaction is exothermic. Some plastics, rubber or coatings can be corroded.
Materials to Avoid	Mercury, phenol, alcohols, aldehydes, esters, ketones, nitrites, strong acids, acid anhydrides, oxidizing agents, nitrosating agents.
Hazardous Decomposition Products	No decomposition if stored and handled as prescribed/indicated. In case of fire, Carbon monoxide, carbon dioxide, nitrogen oxides , nitrous gases.
Hazardous Polymerisation	Has not been reported.

11. TOXICOLOGICAL INFORMATION

General Information	<p>Acute toxicity:</p> <p>Assessment of acute toxicity: Of moderate toxicity after short-term inhalation. Of moderate toxicity after single ingestion. Of pronounced toxicity after short-term skin contact. LD50 rat (oral): 540 mg/kg LC50 rat (by inhalation): 17.3 mg/l 4 h LD50 rat (dermal): 582 mg/kg</p> <p>Irritation:</p> <p>Assessment of irritating effects: Highly corrosive! Damages skin and eyes. Primary skin irritation rabbit: Corrosive. (BASF-Test) Primary irritations of the mucous membrane rabbit: Risk of serious damage to eyes. (BASF-Test)</p>
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Assessment of sensitization:
Skin sensitizing effects were not observed in animal studies.
Mouse ear swelling test (MEST) mouse: Non-sensitizing.

Assessment of repeated dose toxicity:
No substance-specific organotoxicity was observed after repeated administration to animals. After repeated exposure the prominent effect is local irritation.

Assessment of mutagenicity:
The substance was not mutagenic in bacteria. The substance was not mutagenic in mammalian cell culture. The substance was not mutagenic in a test with mammals.

Assessment of carcinogenicity:
In long-term animal studies in which the substance was given by inhalation, a carcinogenic effect was not observed. Under certain conditions the substance can form nitrosamines. Nitrosamines are carcinogenic in animal studies.

Assessment of reproduction toxicity:
The results of animal studies gave no indication of a fertility impairing effect. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Assessment of teratogenicity:
No indications of a developmental toxic / teratogenic effect were seen in animal studies. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Other relevant toxicity information:
No experimental evidence available for genotoxicity in vitro (Ames test negative). Together with nitrosating agents (f. i. nitrites, nitrogen oxides) nitrosamines may be formed under certain conditions. Nitrosamines showed a carcinogenic effect in animal experiment.

Eye/Irritant	Corrosive to eyes. Causes severe eye damage.
Ingestion	Harmful if swallowed. Causes severe burns. Risk of burns to the mouth, oesophagus, and stomach.
Inhalation	Harmful by inhalation. Causes severe burns. Causes temporary irritation of the respiratory tract. Of moderate toxicity after short-term inhalation.
Skin/Irritant	Causes severe skin burns. Toxic in contact with skin.
Carcinogen Category	No Data Available

12. ECOLOGICAL INFORMATION

Ecotoxicity	Toxic to aquatic life. Toxicity to fish: LC50 (96 h) 27 mg/l, <i>Oryzias latipes</i> (OECD Guideline 203, semistatic) LC50 (96 h) 25 mg/l, <i>Salmo gairdneri</i> , syn. <i>O. mykiss</i> (static) The statement of the toxic effect relates to the analytically determined concentration. The study was carried out in soft water. Literature data. The product will cause changes in the pH value of the test system. The result refers to an neutralized sample. LC50 (96 h) 182 mg/l, <i>Salmo gairdneri</i> , syn. <i>O. mykiss</i> (static) The statement of the toxic effect relates to the analytically determined concentration. The study was carried out in hard water. Literature data. The product will cause changes in the pH value of the test system. The result refers to an neutralized sample. Aquatic invertebrates: EC50 (48 h) 56 mg/l, <i>Daphnia magna</i> (OECD Guideline 202, part 1) EC50 (48 h) 4.6 mg/l, <i>Ceriodaphnia dubia</i> (Daphnia test acute, semistatic) The statement of the toxic effect relates to the analytically determined concentration. Aquatic plants: EC50 (72 h) 54 mg/l, <i>Pseudokirchneriella subcapitata</i> (OECD Guideline 201, static) EC50 (96 h) 20 mg/l, <i>Selenastrum capricornutum</i> (static) No observed effect concentration (72 h) 11 mg/l, <i>Pseudokirchneriella subcapitata</i> (OECD Guideline 201, static) Microorganisms/Effect on activated sludge: EC20 (30 min) > 1,000 mg/l, activated sludge, domestic (OECD Guideline 209, aquatic) Nominal concentration.
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EC50 (17 h) 47 mg/l, *Pseudomonas putida* (DIN 38412 Part 8, aquatic)
Nominal concentration. The product will cause changes in the pH value of the test system. The result refers to an unneutralized sample. After neutralization, it is no longer toxic.

Chronic toxicity to fish:
Study scientifically not justified.

Chronic toxicity to aquatic invertebrates:
No observed effect concentration (21 d), 4.2 mg/l, *Daphnia magna* (OECD Guideline 211)

Persistence/Degradability

Assessment biodegradation and elimination (H₂O):
Readily biodegradable (according to OECD criteria).

Elimination information:
76 % BOD of the ThOD (28 d) (OECD Guideline 301 F) (aerobic, activated sludge, domestic)
68 % BOD of the ThOD (28 d) (OECD 301C; ISO 9408; 92/69/EEC, C.4-F) (Inoculum conforming to MITI requirements (OECD 301C))

Information on Stability in Water (Hydrolysis):
According to structural properties, hydrolysis is not expected/probable.

Mobility

Assessment transport between environmental compartments: The substance will slowly evaporate into the atmosphere from the water surface. Adsorption to solid soil phase is not expected.

Environmental Fate

Do NOT let product reach waterways, drains and sewers.

Bioaccumulation Potential

Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

Environmental Impact

No Data Available

13. DISPOSAL CONSIDERATIONS

General Information

Dispose of in accordance with all local, state and federal regulations. All empty packaging should be disposed of in accordance with Local, State, and Federal Regulations or recycled/reconditioned at an approved facility.

Special Precautions for Land Fill

Contact a specialist disposal company or the local waste regulator for advice. Incinerate in suitable incineration plant, observing local authority regulations.

Contaminated packaging:
Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

14. TRANSPORT INFORMATION

Land Transport (Australia)

ADG Code

Proper Shipping Name	DIETHYLAMINE
Class	3 Flammable Liquids
Subsidiary Risk(s)	8 Corrosive Substances
EPG	18 Liquids - Highly Flammable, Toxic And/Or Corrosive
UN Number	1154
Hazchem	•2WE
Pack Group	II
Special Provision	No Data Available

Land Transport (Malaysia)

ADR

Proper Shipping Name	DIETHYLAMINE
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Class	3 Flammable Liquids
Subsidiary Risk(s)	8 Corrosive Substances
EPG	18 Liquids - Highly Flammable, Toxic And/Or Corrosive
UN Number	1154
Hazchem	•2WE
Pack Group	II
Special Provision	No Data Available

Land Transport (New Zealand)

NZS5433

Proper Shipping Name	DIETHYLAMINE
Class	3 Flammable Liquids
Subsidiary Risk(s)	8 Corrosive Substances
EPG	18 Liquids - Highly Flammable, Toxic And/Or Corrosive
UN Number	1154
Hazchem	•2WE
Pack Group	II
Special Provision	No Data Available

Land Transport (United States of America)

US DOT

Proper Shipping Name	DIETHYLAMINE
Class	3 Flammable Liquids
Subsidiary Risk(s)	8 Corrosive Substances
ERG	132 Flammable Liquids - Corrosive
UN Number	1154
Hazchem	2WE
Pack Group	II
Special Provision	No Data Available

Sea Transport

IMDG Code

Proper Shipping Name	DIETHYLAMINE
Class	3 Flammable Liquids
Subsidiary Risk(s)	8 Corrosive Substances
UN Number	1154
Hazchem	2WE
Pack Group	II
Special Provision	No Data Available
EMS	FE,SC
Marine Pollutant	No

Air Transport

IATA DGR

Proper Shipping Name	DIETHYLAMINE
Class	3 Flammable Liquids
Subsidiary Risk(s)	8 Corrosive Substances
UN Number	1154
Hazchem	2WE
Pack Group	II

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)

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

HSR001127

National/Regional Inventories**Australia (AICS)**

Listed

Canada (DSL)

Not Determined

Canada (NDSL)

Not Determined

China (IECSC)

Not Determined

Europe (EINECS)

Not Determined

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

DIETHY1000, DIETHY1001, DIETHY1002, DIETHY1003, DIETHY1004, DIETHY2000, DIETHY3000, DIETHY3001,

Related Product Codes	DIETHY4000, DIETHY5000, DIETHY6000
Revision	3
Revision Date	28 Sep 2016
Key/Legend	<p>< 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. 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. 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</p>