



SAFETY DATA SHEET SODIUM BICHROMATE SOLUTION REVISION 6, DATE 14 MAR 23

1. IDENTIFICATION

Product Name	Sodium Bichromate Solution
Other Names	Sodium dichromate solution
Uses	Water treatment; Catalyst; Tanning; Corrosion inhibitors and surface treatment.
Chemical Family	No Data Available
Chemical Formula	Cr ₂ H ₂ O ₇ .2Na
Chemical Name	Chromic acid (H ₂ Cr ₂ O ₇), disodium salt, aqueous solution
Product Description	No Data Available

Contact Details of the Supplier of this Safety Data Sheet

Organisation	Location	Telephone
Redox Ltd	2 Swettenham Road Minto NSW 2566 Australia	+61-2-97333000
Redox Ltd	11 Mayo Road Wiri Auckland 2104 New Zealand	+64-9-2506222
Redox Inc.	3960 Paramount Boulevard Suite 107 Lakewood CA 90712 USA	+1-424-675-3200
Redox Chemicals Sdn Bhd	Level 2, No. 8, Jalan Sapir 33/7 Seksyen 33, Shah Alam Premier Industrial Park 40400 Shah Alam Sengalor, Malaysia	+60-3-5614-2111

Emergency Contact Details

For emergencies only; DO NOT contact these companies for general product advice.

Organisation	Location	Telephone
Poisons Information Centre	Westmead NSW	1800-251525 131126
Chemcall	Australia	1800-127406 +64-4-9179888
Chemcall	Malaysia	+64-4-9179888
Chemcall	New Zealand	0800-243622 +64-4-9179888
National Poisons Centre	New Zealand	0800-764766
CHEMTREC	USA & Canada	1-800-424-9300 CN723420 +1-703-527-3887






2. HAZARD IDENTIFICATION

Poisons Schedule (Aust)

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		Oxidising Liquids - Category 2 Acute Toxicity (Oral) - Category 3 Acute Toxicity (Dermal) - Category 4 Acute Toxicity (Inhalation) - Category 2 Skin Corrosion/Irritation - Category 1B Serious Eye Damage/Irritation - Category 1 Sensitisation (Respiratory) - Category 1 Sensitisation (Skin) - Category 1 Germ Cell Mutagenicity - Category 1B Carcinogenicity - Category 1B Toxic To Reproduction - Category 1B Specific Target Organ Toxicity (Repeated Exposure) - 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		H272 May intensify fire; oxidizer. H301 Toxic if swallowed. H312 Harmful in contact with skin. H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin reaction. H330 Fatal if inhaled. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H340 May cause genetic defects. H350 May cause cancer. H360FD May damage fertility. May damage the unborn child. H372 Causes damage to organs through prolonged or repeated exposure. H410 Very toxic to aquatic life with long lasting effects.	
Precautionary Statements	Prevention	P260	Do not breathe mist/vapour/spray.
		P280	Wear protective gloves/protective clothing/eye protection/face protection.
		P201	Obtain special instructions before use.
		P284	Wear respiratory protection.
		P273	Avoid release to the environment.
		P270	Do not eat, drink or smoke when using this product.
		P271	Use only outdoors or in a well-ventilated area.
		P272	Contaminated work clothing should not be allowed out of the workplace.
		P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
	Response	P370 + P378	In case of fire: Use water for extinction.

	P310	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.
	P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P304 + P340	IF INHALED: Remove victim to fresh air and keep comfortable for breathing.
	P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
	P363	Wash contaminated clothing before reuse.
	P391	Collect spillage.
Storage	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
Sodium bichromate	Cr ₂ H ₂ O ₇ .2Na	10588-01-9	50 %
Water	H ₂ O	7732-18-5	50 %

4. FIRST AID MEASURES*Description of necessary measures according to routes of exposure***Swallowed**

IF SWALLOWED: Rinse mouth, then give a glass of water. Do NOT induce vomiting. Immediately call a Poison Centre or doctor/physician for advice. Urgent hospital treatment is likely to be needed! 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 flushing until advised to stop by a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor, or for at least 15 minutes. Transport promptly to hospital or medical centre.

Skin

IF ON SKIN (or hair): Remove and isolate contaminated clothing and shoes. Immediately flush skin and hair with running water for at least 15 minutes. In case of gross contamination, drench contaminated clothing and skin with plenty of water before removing clothes. Immediately call a Poison Centre or doctor/physician for advice. For minor skin contact, avoid spreading material on unaffected skin. Wash contaminated clothing and shoes before reuse.
*Contaminated clothing may be a fire risk when dry!

Inhaled

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a Poison

Centre or doctor/physician for advice. Give artificial respiration if victim is not breathing - Do not use direct mouth-to-mouth method if victim ingested or inhaled the substance; use alternative respiratory method or proper respiratory device. Administer oxygen if breathing is difficult. Transport promptly to hospital or medical centre.

Advice to Doctor

For advice, contact a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor at once! Keep victim calm and warm. Ensure that attending medical personnel are aware of identity and nature of the product(s) involved, and take precautions to protect themselves. Show this safety data sheet (SDS) to the doctor in attendance.

*Most important symptoms and effects, both acute and delayed: Toxic if swallowed. Harmful in contact with skin. Causes severe skin burns and eye damage. Fatal if inhaled. May cause genetic defects. May cause cancer. May damage fertility. May damage the unborn child. Causes damage to organs through prolonged or repeated exposure. Massive overexposure to sodium dichromate could lead to kidney failure and death!

Medical Conditions Aggravated by Exposure May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

5. FIRE FIGHTING MEASURES

General Measures	If safe to do so, move undamaged containers from fire area. Do not move cargo if cargo has been exposed to heat! Cool containers with water spray until well after fire is out - If impossible, withdraw from area and let fire burn. Dam fire control water for later disposal. ALWAYS stay away from tank ends.
Flammability Conditions	OXIDISING SUBSTANCE: Non-combustible; however, will accelerate burning when involved in a fire. May ignite combustibles.
Extinguishing Media	If material is involved in a fire, use water for extinction - Do not use dry chemicals or foam. Carbon dioxide (CO ₂) or Halon may provide limited control. *Large fire: Flood fire area with water from a distance.
Fire and Explosion Hazard	Risk of violent reaction or explosion! May explode from heat or contamination. Containers may explode when heated.
Hazardous Products of Combustion	Fire may produce irritating, corrosive and/or toxic gases, including Sodium oxides and Chromium oxides.
Special Fire Fighting Instructions	Contain runoff from fire control or dilution water - Runoff may cause pollution. Runoff may create fire or explosion hazard!
Personal Protective Equipment	Wear positive pressure self-contained breathing apparatus (SCBA). Wear chemical protective clothing - It may provide little or no thermal protection. Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.
Flash Point	No Data Available
Lower Explosion Limit	No Data Available
Upper Explosion Limit	No Data Available
Auto Ignition Temperature	No Data Available
Hazchem Code	2W

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure	Ensure adequate ventilation - Ventilate closed spaces before entering. Prevent exposure to heat - ELIMINATE all ignition sources. Do not contaminate - Keep combustibles away from spilled material. Slippery when spilt. Avoid accidents, clean up immediately! Do not breathe vapours and prevent contact with eyes, skin and clothing.
Clean Up Procedures	Use a non-combustible material like vermiculite, sand or earth to soak up the product and place in a suitable, loosely-covered container for later disposal (see SECTION 13).
Containment	Stop leak if safe to do so - Prevent entry into waterways, drains or confined areas. Dike far ahead of large spill for later disposal. *Toxic/flammable fumes may accumulate in confined areas. Use water spray to knock down vapours or divert vapour clouds.
Decontamination	Treat the spill area with a reducing agent to convert hexavalent chromium to the trivalent form, using sodium bisulphite, sodium sulphite, ferrous sulphate or ferrous chloride, and neutralise with a weak base (e.g. sodium bicarbonate, soda ash or lime).

Environmental Precautionary Measures	Spillages and decontamination runoff should be prevented from entering drains and watercourses. If contamination of sewers or waterways has occurred advise local emergency services.
Evacuation Criteria	Spill or leak area should be isolated immediately. Keep unauthorised personnel away. Keep upwind and to higher ground. *Large spill: Immediately contact Police or Fire Brigade. Consider downwind evacuation within at least 100 m.
Personal Precautionary Measures	Do not touch damaged containers or spilled material unless wearing appropriate protective clothing (see SECTION 8). *Fully encapsulating, vapor-protective clothing should be worn for spills and leaks with no fire.

7. HANDLING AND STORAGE

Handling	Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Obtain special instructions before use - Do not handle until all safety precautions have been read and understood. Ensure adequate ventilation - Use only outdoors or in a well-ventilated area. Limit quantities of product to the minimum necessary for handling and limit the number of exposed workers. Do not breathe mist/vapours/spray and prevent contact with eyes, skin and clothing. Do not ingest. Wear protective gloves/protective clothing/eye protection/face protection and suitable respirator (see SECTION 8). OXIDISING SUBSTANCE: Do not contaminate - Take any precaution to avoid mixing with combustibles. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources - No smoking. 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 containers closed when not in use - check regularly for leaks. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources - No smoking. Keep/store away from foodstuffs, combustible and incompatible materials (see SECTION 10). Store locked up.
Container	Keep only in the original container.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	No specific exposure standards are available for this product. For Chromium (VI) compounds, water soluble (as Cr): - Safe Work Australia (SWA) Exposure Standard: TWA = 0.05 mg/m ³ ; Respiratory and/or skin sensitiser (Sen). - New Zealand Workplace Exposure Standard [Adopted 2020]: TWA = 0.00002 mg/m ³ ; STEL = 0.0005 mg/m ³ ; Known or presumed human carcinogen (carcinogen category 1); Exposure can also be estimated by biological monitoring (bio); Dermal sensitiser (dsen); Skin absorption (skin); Respiratory sensitiser (rsen).
Exposure Limits	No Data Available
Biological Limits	New Zealand WorkSafe Biological Exposure Index (BEI) value for Chromium (VI) water-soluble fume [Adopted 2018]: - Determinant: Total chromium in urine - End of shift at end of work week: 25 µg/litre - End of 8-hr exposure: Increase of 10 µg/litre
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: Wear respiratory protection. Recommended: Air-supplied respirator (refer to AS/NZS 1715 & 1716). - Eye/face protection: Wear appropriate eye protection to prevent eye contact. Recommended: Chemical goggles, full face-shield (not required if wearing air-supplied mask). - Hand protection: Wear protective gloves. Recommended: Elbow-length, impervious gloves. - Skin/body protection: Wear appropriate personal protective clothing to prevent skin contact. Recommended: Overalls, splash apron, rubber boots.
Special Hazards Precautions	No information available.
Work Hygienic Practices	Handle in accordance with good industrial hygiene and safety practice. 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. Contaminated work clothing should not be allowed out of the workplace. Floors, walls and other surfaces in the hazard area must be cleaned regularly.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Clear liquid
Odour	No information available.
Colour	Brown or orange
pH	<=3.5
Vapour Pressure	No Data Available
Relative Vapour Density	No Data Available
Boiling Point	No Data Available
Melting Point	No Data Available
Freezing Point	No Data Available
Solubility	Miscible with water
Specific Gravity	1.345 - 1.355
Flash Point	No Data Available
Auto Ignition Temp	No Data Available
Evaporation Rate	No Data Available
Bulk Density	No Data Available
Corrosion Rate	No Data Available
Decomposition Temperature	No Data Available
Density	1.345 - 1.355 g/ml
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! May explode from heat or contamination.
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	OXIDISING SUBSTANCE: Non-combustible; however, will accelerate burning when involved in a fire. May ignite combustibles.
Reactions That Release Gases or Vapours	Decomposes on heating emitting toxic fumes, including Sodium oxides and Chromium oxides.
Release of Invisible Flammable Vapours and Gases	Toxic/flammable fumes may accumulate in confined areas.

10. STABILITY AND REACTIVITY

General Information	Mild oxidising agent in solution. Becomes strongly oxidising in strong acid. May react violently or explosively with hydrazine, acetic anhydride.
Chemical Stability	Stable under recommended storage conditions.
Conditions to Avoid	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Do not contaminate. Avoid contact with organic materials, oils, greases.
Materials to Avoid	Incompatible/reactive with combustible/organic materials, reducing agents, acids, hydrazine, acetic anhydride, ammonium compounds, cyanides, peroxides, hydroxylamine.
Hazardous Decomposition Products	Decomposes on heating emitting toxic fumes, including Sodium oxides and Chromium oxides.
Hazardous Polymerisation	Will not occur.

11. TOXICOLOGICAL INFORMATION

General Information	<p>Information on toxicological effects:</p> <ul style="list-style-type: none"> - Acute toxicity: Toxic if swallowed. Harmful in contact with skin. Fatal if inhaled. Accidental or intentional ingestion of high doses of chromium (VI) compounds by humans has resulted in severe respiratory, cardiovascular, gastrointestinal, haematological, hepatic, renal and neurological effects [NICNAS]. - Skin corrosion/irritation: Causes severe skin burns. In workers regularly exposed to Cr (VI) in solution, chrome ulcers developed after some initial damage to the skin; The severity of the ulcer depends upon the frequency and duration of skin contamination, the condition of the skin and the pH of the solution [NICNAS]. - Eye damage/irritation: Causes serious eye damage (implicit). - Respiratory/skin sensitisation: May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. - Germ cell mutagenicity: May cause genetic defects. - Carcinogenicity: May cause cancer. Chromium (VI) compounds are classified by the IARC Monographs as "Carcinogenic to humans" (Group 1). - Reproductive toxicity: May damage fertility or the unborn child. - STOT (single exposure): Irritating to the respiratory system (implicit). - STOT (repeated exposure): Causes damage to organs through prolonged or repeated inhalation exposure (Eyes, Skin, Liver, kidney and respiratory system, Central nervous system, Reproductive system). Workers exposed to dissolved chromium (VI) aerosols and chromium trioxide mists reported effects on the respiratory, renal and gastrointestinal systems [NICNAS]. - Aspiration toxicity: No information available. <p>Information on likely routes of exposure:</p> <ul style="list-style-type: none"> - Ingestion: Swallowing can result in nausea, vomiting, diarrhoea, abdominal pain and chemical burns to the gastrointestinal tract. Death may occur if large amounts are ingested. - Eye contact: Corrosive to eyes; contact can cause corneal burns. Contamination of eyes can result in permanent injury. - Skin contact: Corrosive to skin - may cause skin burns. A skin sensitiser. Repeated or prolonged skin contact may lead to allergic contact dermatitis. - Inhalation: Breathing in mists or aerosols may produce respiratory irritation. A respiratory sensitiser. Can cause allergic reactions, producing asthma-like symptoms. <p>Chronic effects: May cause genetic defects. May cause cancer. May damage fertility or the unborn child. Danger of serious damage to health by prolonged exposure through inhalation.</p>
Acute	
Ingestion	<p>Acute toxicity (Oral):</p> <p>COMPONENT: Sodium dichromate, anhydrous (CAS No. 10588-01-9):</p> <p>- LD50, Rat: 51 mg/kg [Supplier's SDS].</p>
Carcinogen Category	Cat. 1B

12. ECOLOGICAL INFORMATION

Ecotoxicity	No information available.
Persistence/Degradability	No information available.
Mobility	No information available.
Environmental Fate	Very toxic to aquatic life with long lasting effects - Avoid release to the environment. *The substance is not identified as having endocrine disrupting properties.
Bioaccumulation Potential	No information available.
Environmental Impact	No Data Available

13. DISPOSAL CONSIDERATIONS

General Information	Dispose of contents/container through a licensed waste disposal company and in accordance with local/regional/national regulations.
Special Precautions for Land Fill	Triple rinse containers with water and return washings to treatment system for use.

14. TRANSPORT INFORMATION

Land Transport (Australia)

ADG Code

Proper Shipping Name	OXIDISING LIQUID, TOXIC, N.O.S. (Sodium bichromate solution)
Class	5.1 Oxidising Substances
Subsidiary Risk(s)	6.1 Toxic and Infectious Substances - Toxic Substances
EPG	31 Oxidizing Substances
UN Number	3099
Hazchem	2W
Pack Group	II
Special Provision	No Data Available

Land Transport (Malaysia)

ADR Code

Proper Shipping Name	OXIDISING LIQUID, TOXIC, N.O.S. (Sodium bichromate solution)
Class	5.1 Oxidising Substances
Subsidiary Risk(s)	6.1 Toxic and Infectious Substances - Toxic Substances
EPG	31 Oxidizing Substances
UN Number	3099
Hazchem	2W
Pack Group	II
Special Provision	No Data Available

Land Transport (New Zealand)

NZS5433

Proper Shipping Name	OXIDISING LIQUID, TOXIC, N.O.S. (Sodium bichromate solution)
Class	5.1 Oxidising Substances
Subsidiary Risk(s)	6.1 Toxic and Infectious Substances - Toxic Substances

EPG	31 Oxidizing Substances
UN Number	3099
Hazchem	2W
Pack Group	II
Special Provision	No Data Available

Land Transport (United States of America)
US DOT

Proper Shipping Name	OXIDISING LIQUID, TOXIC, N.O.S. (Sodium bichromate solution)
Class	5.1 Oxidising Substances
Subsidiary Risk(s)	6.1 Toxic and Infectious Substances - Toxic Substances
ERG	142 Oxidizers - Toxic (Liquid)
UN Number	3099
Hazchem	2W
Pack Group	II
Special Provision	No Data Available

Sea Transport
IMDG Code

Proper Shipping Name	OXIDISING LIQUID, TOXIC, N.O.S. (Sodium bichromate solution)
Class	5.1 Oxidising Substances
Subsidiary Risk(s)	6.1 Toxic and Infectious Substances - Toxic Substances
UN Number	3099
Hazchem	2W
Pack Group	II
Special Provision	No Data Available
EMS	F-A, S-Q
Marine Pollutant	Yes

Air Transport
IATA DGR

Proper Shipping Name	OXIDISING LIQUID, TOXIC, N.O.S. (Sodium bichromate solution)
Class	5.1 Oxidising Substances
Subsidiary Risk(s)	6.1 Toxic and Infectious Substances - Toxic Substances
UN Number	3099
Hazchem	2W
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 CHROMATES

Poisons Schedule (Aust) Schedule 6

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

Approval Code HSR002633 - Oxidising Liquids and Solids (Acutely Toxic, Corrosive, Carcinogenic) Group Standard 2020

National/Regional Inventories

Australia (AIIC)	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)	Listed

16. OTHER INFORMATION

Related Product Codes	SOBICL0700, SOBICL1000, SOBICL1700, SOBICL3600, SOBICL3900, SOBICL3902, SOBICL3990, SOBICL4000, SOBICL5000, SOBICL5100
Revision	6
Revision Date	14 Mar 2023
Key/Legend	<p>< Less Than</p> <p>> Greater Than</p> <p>AICS Australian Inventory of Chemical Substances</p> <p>atm Atmosphere</p> <p>CAS Chemical Abstracts Service (Registry Number)</p> <p>cm² Square Centimetres</p> <p>CO₂ Carbon Dioxide</p> <p>COD Chemical Oxygen Demand</p>

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