

Soder-Wick Rosin Desoldering Braid (NZ) #7630709, 7630702, 7622685, 7622676, 7622672, 6172763, 4581389, 0449449, 3327538, 3151909, 3143469, 3143330, 3143324, 3143318, 2919344, 2919338, 2919322, 2214914, 2214908, 2214891, 2214885

RS Components

Chemwatch Hazard Alert Code: 4

Issue Date: 21/01/2021 Print Date: 22/01/2021 L.GHS.NZL.EN

Chemwatch: 5439-59 Version No: 4.1.1.1 Safety Data Sheet according to the Health and Safety at Work (Hazardous Substances) Regulations 2017

SECTION 1 Identification of the substance / mixture and of the company / undertaking

Product Identifier

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Product name	Soder-Wick Rosin Desoldering Braid (NZ) #7630709, 7630702, 7622685, 7622676, 7622672, 6172763, 4581395, 4581389, 0449449, 3327538, 3151909, 3143469, 3143330, 3143324, 3143318, 2919344, 2919338, 2919322, 2214914, 2214908, 2214891, 2214885					
Chemical Name	Not Applicable					
Synonyms	Product Codes: 7630709, 7630702, 7622685, 7622676, 7622672, 6172763, 4581395, 4581389, 0449449, 3327538, 3151909, 3143469, 3143330, 3143324, 3143318, 2919344, 2919338, 2919322, 2214914, 2214908, 2214891, 2214885, 1485553					
Chemical formula	Not Applicable					
Other means of identification	Not Available					

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses Soldering remover. Fluxing agents.

Details of the supplier of the safety data sheet

Registered company name	RS Components			
Address	Box 12-127 Penrose, Auckland New Zealand			
Telephone	7 4747122			
Fax	64 9 579 1700			
Website	www.nz.rs-online.com			
Email	Not Available			

Emergency telephone number

Association / Organisation	CHEMWATCH EMERGENCY RESPONSE				
Emergency telephone numbers	+61 2 9186 1132				
Other emergency telephone numbers	+64 800 700 112				

Once connected and if the message is not in your prefered language then please dial 01

SECTION 2 Hazards identification

Classification of the substance or mixture

Classification [1]	Acute Toxicity (Inhalation) Category 4, Carcinogenicity Category 1, Acute Aquatic Hazard Category 3					
Legend:	1. Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI					
Determined by Chemwatch using GHS/HSNO criteria	6.1D (inhalation), 6.7A, 9.1D					

Label elements

Hazard pictogram(s)





Signal word Danger

Hazard statement(s)

H332

Harmful if inhaled.

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H350	May cause cancer.
H402	Harmful to aquatic life.

Precautionary statement(s) Prevention

P201	Obtain special instructions before use.			
P271	only outdoors or in a well-ventilated area.			
P280	Wear protective gloves/protective clothing/eye protection/face protection.			
P261	Avoid breathing dust/fumes.			

Precautionary statement(s) Response

P308+P313	IF exposed or concerned: Get medical advice/ attention.		
P312	Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.		
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.		

Precautionary statement(s) Storage

P405	Store locked up

Precautionary statement(s) Disposal

P501 Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
Not Available		desoldering braid consisting of
7440-50-8	97	copper
8050-09-7	3	<u>rosin-colophony</u>
Not Available		which upon use generates
Not Available	NotSpec	welding fumes
Not Available		containing
7440-50-8.	NotSpec	copper fume
Not Available	NotSpec	rosin core solder decomposition products

SECTION 4 First aid measures

Description of first aid measures

Eye Contact

Skin Contact

- Particulate bodies from welding spatter may be removed carefully.
- DO NOT attempt to remove particles attached to or embedded in eye.
- Lay victim down, on stretcher if available and pad **BOTH** eyes, make sure dressing does not press on the injured eye by placing thick pads under dressing, above and below the eye.
- Seek urgent medical assistance, or transport to hospital.
 - ▶ For "arc eye", i.e. welding flash or UV light burns to the eye:
 - Place eye pads or light clean dressings over both eyes
 Seek medical assistance.

For THERMAL burns:

- ► Do NOT remove contact lens
- Lay victim down, on stretcher if available and pad **BOTH** eyes, make sure dressing does not press on the injured eye by placing thick pads under dressing, above and below the eye.
- Seek urgent medical assistance, or transport to hospital.

If skin or hair contact occurs:

- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

For thermal burns:

- Decontaminate area around burn.
- ▶ Consider the use of cold packs and topical antibiotics.

For first-degree burns (affecting top layer of skin)

- ▶ Hold burned skin under cool (not cold) running water or immerse in cool water until pain subsides.
- Use compresses if running water is not available.
- Cover with sterile non-adhesive bandage or clean cloth.
 - Do NOT apply butter or ointments; this may cause infection.
- Give over-the counter pain relievers if pain increases or swelling, redness, fever occur.

For second-degree burns (affecting top two layers of skin)

- Cool the burn by immerse in cold running water for 10-15 minutes.
- ▶ Use compresses if running water is not available.
- ▶ Do NOT apply ice as this may lower body temperature and cause further damage.
- ▶ Do NOT break blisters or apply butter or ointments; this may cause infection.
- ▶ Protect burn by cover loosely with sterile, nonstick bandage and secure in place with gauze or tape.

To prevent shock: (unless the person has a head, neck, or leg injury, or it would cause discomfort):

Lay the person flat.

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► Elevate feet about 12 inches. Flevate burn area above heart level, if possible. Cover the person with coat or blanket. Seek medical assistance. For third-degree burns Seek immediate medical or emergency assistance. In the mean time: Protect burn area cover loosely with sterile, nonstick bandage or, for large areas, a sheet or other material that will not leave lint in wound. Separate burned toes and fingers with dry, sterile dressings Do not soak burn in water or apply ointments or butter; this may cause infection. ► To prevent shock see above. For an airway burn, do not place pillow under the person's head when the person is lying down. This can close the airway. Have a person with a facial burn sit up. Check pulse and breathing to monitor for shock until emergency help arrives. If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Inhalation Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary Transport to hospital, or doctor. Ingestion Not normally a hazard due to the physical form of product. The material is a physical irritant to the gastro-intestinal tract

Indication of any immediate medical attention and special treatment needed

Copper, magnesium, aluminium, antimony, iron, manganese, nickel, zinc (and their compounds) in welding, brazing, galvanising or smelting operations all give rise to thermally produced particulates of smaller dimension than may be produced if the metals are divided mechanically. Where insufficient ventilation or respiratory protection is available these particulates may produce "metal fume fever" in workers from an acute or long term exposure.

- Donset occurs in 4-6 hours generally on the evening following exposure. Tolerance develops in workers but may be lost over the weekend. (Monday Morning Fever)
- Pulmonary function tests may indicate reduced lung volumes, small airway obstruction and decreased carbon monoxide diffusing capacity but these abnormalities resolve after several months.
- ▶ Although mildly elevated urinary levels of heavy metal may occur they do not correlate with clinical effects.
- ▶ The general approach to treatment is recognition of the disease, supportive care and prevention of exposure.
- Seriously symptomatic patients should receive chest x-rays, have arterial blood gases determined and be observed for the development of tracheobronchitis and pulmonary edema.

[Ellenhorn and Barceloux: Medical Toxicology]

Fire Incompatibility

SECTION 5 Firefighting measures

Extinguishing media

► There is no restriction on the type of extinguisher which may be used

None known.

Use extinguishing media suitable for surrounding area.

Special hazards arising from the substrate or mixture

Advice for firefighters				
Fire Fighting	Alert Fire Brigade and tell them location and nature of hazard. Product is not combustible. No special firefighting procedures required.			
Fire/Explosion Hazard	 Non combustible. Not considered a significant fire risk, however containers may burn. Decomposition may produce toxic fumes of: metal oxides May emit poisonous fumes. Welding arc and metal sparks can ignite combustibles. 			

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	Clean up all spills immediately. Wear impervious gloves and safety glasses. Use dry clean up procedures and avoid generating dust. Place in suitable containers for disposal.
Major Spills	Minor hazard. Clear area of personnel. Alert Fire Brigade and tell them location and nature of hazard. Control personal contact with the substance, by using protective equipment if risk of overexposure exists.

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SECTION 7 Handling and storage

Precautions for safe handling

Safe handling

- ▶ Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.

Other information

- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area.
- Store away from incompatible materials and foodstuff containers.

Conditions for safe storage, including any incompatibilities

Suitable container

- Packaging as recommended by manufacturer.
- ► Check that containers are clearly labelled
- Storage incompatibility
- Avoid strong acids, acid chlorides, acid anhydrides and chloroformates.

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
New Zealand Workplace Exposure Standards (WES)	copper	Copper fume Dusts and mists, as Cu	0.2; 1 mg/m3	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	rosin- colophony	Rosin core solder thermal decomposition products as resin acids (colophony)	Not Available	Not Available	Not Available	Reduce to the lowest practicable level dsen-Dermal sensitiser (rsen)-Respiratory sensitiser
New Zealand Workplace Exposure Standards (WES)	copper fume	Copper fume Dusts and mists, as Cu	0.2; 1 mg/m3	Not Available	Not Available	Not Available

Emergency Limits

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
copper	Copper	3 mg/m3	33 mg/m3	200 mg/m3
rosin-colophony	Rosin core solder decomposition products; (Colophony Gum)	72 mg/m3	790 mg/m3	1,500 mg/m3
copper fume	Copper	3 mg/m3	33 mg/m3	200 mg/m3

Ingredient	Original IDLH	Revised IDLH
copper	100 mg/m3	Not Available
rosin-colophony	Not Available	Not Available
welding fumes	Not Available	Not Available
copper fume	100 mg/m3	Not Available
rosin core solder decomposition products	Not Available	Not Available

Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
welding fumes	E	≤ 0.01 mg/m³
rosin core solder decomposition products	D	> 0.1 to ≤ 1 ppm

Notes:

Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.

MATERIAL DATA

Exposure controls

Appropriate engineering controls

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.

If risk of inhalation or overexposure exists, wear SAA approved respirator or work in fume hood.

Personal protection









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Eye and face protection	 Goggles or other suitable eye protection shall be used during all gas welding or oxygen cutting operations. Spectacles without side shields, with suitable filter lenses are permitted for use during gas welding operations on light work, for torch brazing or for inspection. For most open welding/brazing operations, goggles, even with appropriate filters, will not afford sufficient facial protection for operators. Where possible use welding helmets or handshields corresponding to EN 175, ANSI Z49:12005, AS 1336 and AS 1338 which provide the maximum possible facial protection from flying particles and fragments. Welding helmet with suitable filter. Welding hand shield with suitable filter.
Skin protection	See Hand protection below
Hands/feet protection	 Welding gloves conforming to Standards such as EN 12477:2001, ANSI Z49.1, AS/NZS 2161:2008 produced from leather, rubber, treated cotton, or alumininised These gloves protect against mechanical risk caused by abrasion, blade cut, tear and puncture Other gloves which protect against thermal risks (heat and fire) might also be considered - these comply with different standards to those mentioned above. One pair of gloves may not be suitable for all processes. For example, gloves that are suitable for low current Gas Tungsten Arc Welding (GTAW) (thin and flexible) would not be proper for high-current Air Carbon Arc Cutting (CAC-A) (insulated, tough, and durable) Welding Gloves Safety footwear
Body protection	See Other protection below
Other protection	Overalls • Eyewash unit. Aprons, sleeves, shoulder covers, leggings or spats of pliable flame resistant leather or other suitable materials may also be required in positions where these areas of the body will encounter hot metal.

Recommended material(s)

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:

"Forsberg Clothing Performance Index".

The effect(s) of the following substance(s) are taken into account in the *computer-generated* selection:

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Material	СРІ
BUTYL	Α
NEOPRENE	Α
NEOPRENE/NATURAL	Α
NITRILE	Α
PE	Α
PE/EVAL/PE	Α
PVC	Α
TEFLON	Α
VITON	Α
NATURAL RUBBER	В
NATURAL+NEOPRENE	В

^{*} CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

Respiratory protection

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

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Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

Required minimum protection factor	Maximum gas/vapour concentration present in air p.p.m. (by volume)	Half-face Respirator	Full-Face Respirator
up to 10	1000	A-AUS / Class1 P2	-
up to 50	1000	-	A-AUS / Class 1 P2
up to 50	5000	Airline *	-
up to 100	5000	-	A-2 P2
up to 100	10000	-	A-3 P2
100+			Airline**

* - Continuous Flow ** - Continuous-flow or positive pressure demand A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties **Appearance** Copper solid (metal) with a wood rosin odour; insoluble in water. Physical state Manufactured Relative density (Water = 1) Not Available Partition coefficient n-octanol Odour Not Available Not Available / water Odour threshold Not Available Auto-ignition temperature (°C) Not Applicable pH (as supplied) Not Applicable **Decomposition temperature** Not Available Melting point / freezing point Not Available Viscosity (cSt) Not Available (°C) Initial boiling point and boiling 318 Molecular weight (g/mol) Not Applicable range (°C) Flash point (°C) Not Applicable Not Available **Evaporation rate** Not Available **Explosive properties** Not Available

^{*} Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

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Flammability	Not Applicable	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Applicable	Surface Tension (dyn/cm or mN/m)	Not Applicable
Lower Explosive Limit (%)	Not Applicable	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Immiscible	pH as a solution (1%)	Not Applicable
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

SECTION 10 Stability and reactivity

Reactivity	See section 7
Chemical stability	 Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

Fumes evolved during welding operations may be irritating to the upper-respiratory tract and may be harmful if inhaled.

SECTION 11 Toxicological information

Inhaled

Skin Contact

Chronic

Inhalation of freshly formed metal oxide particles sized below 1.5 microns and generally between 0.02 to 0.05 microns may result in "metal fume fever". Symptoms may be delayed for up to 12 hours and begin with the sudden onset of thirst, and a sweet, metallic or foul taste in the mouth. Other symptoms include upper respiratory tract irritation accompanied by coughing and a dryness of the mucous membranes, lassitude and a generalised feeling of malaise. Mild to severe headache, nausea, occasional vomiting, fever or chills, exaggerated mental activity, profuse sweating, diarrhoea, excessive urination and prostration may also occur.

Copper poisoning following exposure to copper dusts and fume may result in headache, cold sweat and weak pulse. Capillary, kidney, liver and brain damage are the longer term manifestations of such poisoning. Inhalation of freshly formed metal oxide particles sized below 1.5 microns and generally between 0.02 to 0.05 microns may result in "metal fume fever". Symptoms may be delayed for up to 12 hours and begin with the sudden onset of thirst, and a sweet, metallic or foul taste in the mouth.

Shielding gases may act as simple asphyxiants if significant levels are allowed to accumulate. Oxygen monitoring may be necessary.

Ingestion Not normally a hazard due to physical form of product.

Ultraviolet radiation (UV) is generated by the electric arc in the welding process. Skin exposure to UV can result in severe burns, in many cases without prior warning.

Exposure to infrared radiation (IR), produced by the electric arc and other flame cutting equipment may heat the skin surface and the tissues immediately below the surface. Except for this effect, which can progress to thermal burns in some situations, infrared radiation is not dangerous

to welders.

Skin contact does **not** normally present a hazard, though it is always possible that occasionally individuals may be found who react to substances usually regarded as inert.

Eye Ultraviolet (UV) radiation can also damage the lens of the eye. Many arc welders are aware of the condition known as "arc-eye," a sensation of sand in the eyes. This condition is caused by excessive eye exposure to UV. Exposure to ultraviolet rays may also increase the skin effects of some industrial chemicals (coal tar and cresol compounds, for example).

Fumes from welding/brazing operations may be irritating to the eyes.

Principal route of exposure is inhalation of welding fumes from electrodes and workpiece. Reaction products arising from electrode core and flux appear as welding fume depending on welding conditions, relative volatilities of metal oxides and any coatings on the workpiece. Studies of lung cancer among welders indicate that they may experience a 30-40% increased risk compared to the general population. Since smoking and exposure to other cancer-causing agents, such as asbestos fibre, may influence these results, it is not clear whether welding, in fact, represents a significant lung cancer risk.

Long-term (chronic) exposure to low levels of carbon monoxide may produce heart disease and damage to the nervous system. Exposure of pregnant animals to carbon monoxide may cause low birthweight, increased foetal mortality and nervous system damage to the offspring. Carbon monoxide is a common cause of fatal poisoning in industry and homes. Non fatal poisoning may result in permanent nervous system damage.

Metal oxides generated by industrial processes such as welding, give rise to a number of potential health problems. Particles smaller than 5 micron (respirables) articles may cause lung deterioration. Particles of less than 1.5 micron can be trapped in the lungs and, dependent on the nature of the particle, may give rise to further serious health consequences.

Other welding process exposures can arise from radiant energy UV flash burns, thermal burns or electric shock

The welding arc emits ultraviolet radiation at wavelengths that have the potential to produce skin tumours in animals and in over-exposed individuals, however, no confirmatory studies of this effect in welders have been reported.

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TOXICITY	IRRITATION
Not Available	Not Available

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TOXICITY IRRITATION dermal (rat) LD50: >2000 mg/kg[1] Eye: no adverse effect observed (not irritating)^[1] coppe Oral(Mouse) LD50; =0.7 mg/kg^[2] Skin: no adverse effect observed (not irritating) [1]TOXICITY IRRITATION Eye: no adverse effect observed (not irritating)[1]dermal (rat) LD50: >2000 mg/kg[1] rosin-colophony Oral(Rat) LD50; >1000 mg/kg^[1] Skin: no adverse effect observed (not irritating)^[1] TOXICITY IRRITATION welding fumes Not Available Not Available TOXICITY IRRITATION dermal (rat) LD50: >2000 mg/kg^[1] Eye: no adverse effect observed (not irritating)^[1] copper fume Oral(Mouse) LD50; =0.7 mg/kg^[2] Skin: no adverse effect observed (not irritating)^[1] TOXICITY IRRITATION rosin core solder decomposition products Not Available 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise Legend: specified data extracted from RTECS - Register of Toxic Effect of chemical Substances WARNING: Inhalation of high concentrations of copper fume may cause "metal fume fever", an acute industrial disease of short duration. Symptoms are tiredness, influenza like respiratory tract irritation with fever. for copper and its compounds (typically copper chloride): COPPER Acute toxicity: There are no reliable acute oral toxicity results available. In an acute dermal toxicity study (OECD TG 402), one group of 5 male rats and 5 groups of 5 female rats received doses of 1000, 1500 and 2000 mg/kg bw via dermal application for 24 hours. The LD50 values of copper monochloride were 2,000 mg/kg bw or greater for male (no deaths observed) and 1,224 mg/kg bw for female. Four females died at both 1500 and 2000 mg/kg bw, and one at 1,000 mg/kg bw. Most welding is performed using electric arc processes - manual metal arc, metal inert gas (MIG) and tungsten inert gas welding (TIG) - and most welding is on mild steel. In 2017, an IARC working group has determined that "sufficient evidence exists that welding fume is a human lung carcinogen (Group 1). A complicating factor in classifying welding fumes is its complexity. Generally, welding fume is a mixture of metal fumes (i.e., iron, manganese, chromium, nickel, silicon, titanium) and gases (i.e., carbon monoxide, ozone, argon, carbon dioxide). Welding fume can contain varying **WELDING FUMES** concentrations of individual components that are classified as human carcinogens, including hexavalent chrome and nickel. However the presence of such metals and the intensity of exposure to each differ significantly according to a number of variables, including the type of welding technique used and the composition of the base metal and consumable. WARNING: This substance has been classified by the IARC as Group 1: CARCINOGENIC TO HUMANS. Not available. Refer to individual constituents. Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS. rosin core solder The material may produce respiratory tract irritation. Symptoms of pulmonary irritation may include coughing, wheezing, laryngitis, shortness of decomposition products breath, headache, nausea, and a burning sensation. Unlike most organs, the lung can respond to a chemical insult or a chemical agent, by first removing or neutralising the irritant and then repairing the damage (inflammation of the lungs may be a consequence). The repair process (which initially developed to protect mammalian lungs from foreign matter and antigens) may, however, cause further damage to the lungs (fibrosis for example) when activated by hazardous chemicals. Often, this results in an impairment of gas exchange, the primary

function of the lungs. Therefore prolonged exposure to respiratory irritants may cause sustained breathing difficulties.

ROSIN-COLOPHONY & rosin core solder decomposition products

The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact

eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. The significance of the contact allergen is not simply determined by its sensitisation potential: the distribution of the substance and the opportunities for contact with it are equally important.

Acute Toxicity	~	Carcinogenicity	✓
Skin Irritation/Corrosion	×	Reproductivity	×
Serious Eye Damage/Irritation	×	STOT - Single Exposure	×
Respiratory or Skin sensitisation	×	STOT - Repeated Exposure	×
Mutagenicity	×	Aspiration Hazard	×

Legend:

- Data either not available or does not fill the criteria for classification

Data available to make classification

SECTION 12 Ecological information

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copper

rosin-colophony

welding fumes

copper fume

Endpoint	Test Duration (hr)	Species	Value	Source
Not Available	Not Available	Not Available	Not Available	Not Available

Endpoint	Test Duration (hr)	Speci	es	Value		Source
LC50	96	Fish		0.0028mg/L		2
EC50	48	Crusta	acea	0.001mg/L	0.001mg/L	
EC50	72	Algae	or other aquatic plants	-0.0108035-0	-0.0108035-0.0171585mg/L	
BCFD	1344	Not Av	vailable	7402.320-mg	/L	4
EC25	6	Algae	or other aquatic plants	0.001506135	-mg/L	4
NOEL	1440	Not Av	/ailable	-0.0004-0.001	122mg/L	4
Endpoint	Test Duration (hr)		Species		Value	Source
LC50	96		Fish		1.5mg/L	2
EC50	48		Crustacea		3.8mg/L	2
EC50	96		Algae or other aquatic plants		0.031mg/L	2
NOEC	96		Algae or other aquatic plants		0.013mg/L	2
Endpoint	Test Duration (hr)		Species		Value	Source
Not Available	Not Available		Not Available		Not Available	Not Availabl
Endpoint	Test Duration (hr)	Speci	es	Value		Source
LC50	96	Fish		0.0028mg/L		2
EC50	48	Crusta	acea	0.001mg/L		2
EC50	72	Algae	r other aquatic plants -0.0108035-		.0171585mg/L	4
BCFD	1344	Not Av	vailable	7402.320-mg	/L	4
EC25	6	Algae	or other aquatic plants 0.00150613		-mg/L	4
NOEL	1440	Not Av	vailable	-0.0004-0.001	122mg/L	4
Endpoint	Test Duration (hr)		Species		Value	Source

Legend:

rosin core solder

decomposition products

Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

Not Available

Harmful to aquatic organisms.

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
rosin-colophony	HIGH	HIGH

Bioaccumulative potential

Ingredient	Bioaccumulation
rosin-colophony	HIGH (LogKOW = 6.4607)

Mobility in soil

Ingredient	Mobility
rosin-colophony	LOW (KOC = 21990)

SECTION 13 Disposal considerations

Waste treatment methods

- ▶ Containers may still present a chemical hazard/ danger when empty.
- Return to supplier for reuse/ recycling if possible.

Not Available

Available

Product / Packaging disposal

- Otherwise: If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.
 - ▶ Where possible retain label warnings and SDS and observe all notices pertaining to the product.

Not

Available

Not

Available

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- Recycle wherever possible or consult manufacturer for recycling options.
- Consult State Land Waste Management Authority for disposal.
- ▶ Bury residue in an authorised landfill.
- ▶ Recycle containers if possible, or dispose of in an authorised landfill.

Ensure that the hazardous substance is disposed in accordance with the Hazardous Substances (Disposal) Notice 2017

Disposal Requirements

Packages that have been in direct contact with the hazardous substance must be only disposed if the hazardous substance was appropriately removed and cleaned out from the package. The package must be disposed according to the manufacturer's directions taking into account the material it is made of. Packages which hazardous content have been appropriately treated and removed may be recycled.

The hazardous substance must only be disposed if it has been treated by a method that changed the characteristics or composition of the substance and it is no longer hazardous.

SECTION 14 Transport information

Labels Required

Marine Pollutant	NO
HAZCHEM	Not Applicable

Land transport (UN): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
copper	Not Available
rosin-colophony	Not Available
welding fumes	Not Available
copper fume	Not Available
rosin core solder decomposition products	Not Available

Transport in bulk in accordance with the ICG Code

Product name	Ship Type
copper	Not Available
rosin-colophony	Not Available
welding fumes	Not Available
copper fume	Not Available
rosin core solder decomposition products	Not Available

SECTION 15 Regulatory information

Safety, health and environmental regulations / legislation specific for the substance or mixture

This substance is to be managed using the conditions specified in an applicable Group Standard

HSR Number	Group Standard
HSR002531	Cleaning Products (Toxic [6.7]) Group Standard 2017
HSR002596	Laboratory Chemicals and Reagent Kits Group Standard 2017
HSR002607	Lubricants (Toxic [6.7]) Group Standard 2017
HSR002586	Fuel Additives (Toxic [6.7]) Group Standard 2017
HSR002520	Aerosols (Toxic [6.7]) Group Standard 2017
HSR002646	Polymers (Toxic [6.7]) Group Standard 2017
HSR002616	Metal Industry Products (Toxic [6.7]) Group Standard 2017
HSR002512	Additives, Process Chemicals and Raw Materials (Toxic [6.7]) Group Standard 2017
HSR002568	Embalming Chemicals (Toxic [6.7]) Group Standard 2017
HSR002679	Surface Coatings and Colourants (Toxic [6.7]) Group Standard 2017
HSR100425	Pharmaceutical Active Ingredients Group Standard 2017
HSR002601	Leather and Textile Products (Toxic [6.7]) Group Standard 2017
HSR002648	Refining Catalysts Group Standard 2017
HSR002545	Construction Products (Toxic [6.7A]) Group Standard 2017
HSR002551	Corrosion Inhibitors (Toxic [6.7]) Group Standard 2017
HSR100757	Veterinary Medicine (Limited Pack Size, Finished Dose) Standard 2017
HSR100758	Veterinary Medicines (Non-dispersive Closed System Application) Group Standard 2017

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HSR002687

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HSR Number Group Standard

HSR 100759 Veterinary Medicines (Non-dispersive Open System Application) Group Standard 2017

HSR 002655 Solvents (Toxic [6.7]) Group Standard 2017

HSR 002625 N.O.S. (Toxic [6.1, 6.7]) Group Standard 2017

HSR 002639 Photographic Chemicals (Toxic [6.7]) Group Standard 2017

HSR 002560 Dental Products (Toxic [6.7]) Group Standard 2017

copper is found on the following regulatory lists

New Zealand Approved Hazardous Substances with controls

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data

Water Treatment Chemicals (Toxic [6.7]) Group Standard 2017

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Workplace Exposure Standards (WES)

rosin-colophony is found on the following regulatory lists

New Zealand Approved Hazardous Substances with controls

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Workplace Exposure Standards (WES)

welding fumes is found on the following regulatory lists

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 1: Carcinogenic to humans

copper fume is found on the following regulatory lists

New Zealand Approved Hazardous Substances with controls

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Workplace Exposure Standards (WES)

rosin core solder decomposition products is found on the following regulatory lists

Not Applicable

Hazardous Substance Location

Subject to the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Hazard Class	Quantities
Not Applicable	Not Applicable

Certified Handler

Subject to Part 4 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Class of substance	Quantities
Not Applicable	Not Applicable

Refer Group Standards for further information

Maximum quantities of certain hazardous substances permitted on passenger service vehicles

Subject to Regulation 13.14 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Hazard Class	Gas (aggregate water capacity in mL)	Liquid (L)	Solid (kg)	Maximum quantity per package for each classification
Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

Tracking Requirements

Not Applicable

National Inventory Status

National Inventory	Status	
Australia - AIIC / Australia Non-Industrial Use	Yes	
Canada - DSL	Yes	
Canada - NDSL	No (copper; rosin-colophony; copper fume)	
China - IECSC	Yes	
Europe - EINEC / ELINCS / NLP	Yes	
Japan - ENCS	No (copper; rosin-colophony; copper fume)	
Korea - KECI	Yes	
New Zealand - NZIoC	Yes	
Philippines - PICCS	Yes	
USA - TSCA	Yes	

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 National Inventory
 Status

 Taiwan - TCSI
 Yes

 Mexico - INSQ
 Yes

 Vietnam - NCI
 Yes

 Russia - ARIPS
 Yes

 Legend:
 Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

SECTION 16 Other information

Revision Date	21/01/2021
Initial Date	07/01/2021

SDS Version Summary

Version	Issue Date	Sections Updated
3.1.1.1	12/01/2021	Chronic Health, Classification, Ingredients, Physical Properties
4.1.1.1	21/01/2021	Acute Health (eye), Acute Health (inhaled), Acute Health (skin), Acute Health (swallowed), Advice to Doctor, Chronic Health, Classification, Engineering Control, Environmental, Exposure Standard, Fire Fighter (fire fighting), First Aid (eye), First Aid (skin), First Aid (swallowed), Ingredients, Personal Protection (other), Personal Protection (Respirator), Personal Protection (eye), Personal Protection (hands/feet), Spills (major), Spills (minor), Storage (storage incompatibility), Storage (storage requirement), Storage (suitable container), Name

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

Definitions and abbreviations

PC-TWA: Permissible Concentration-Time Weighted Average

PC-STEL: Permissible Concentration-Short Term Exposure Limit

IARC: International Agency for Research on Cancer

ACGIH: American Conference of Governmental Industrial Hygienists

STEL: Short Term Exposure Limit

TEEL: Temporary Emergency Exposure Limit。

IDLH: Immediately Dangerous to Life or Health Concentrations

OSF: Odour Safety Factor

NOAEL :No Observed Adverse Effect Level LOAEL: Lowest Observed Adverse Effect Level

TLV: Threshold Limit Value LOD: Limit Of Detection OTV: Odour Threshold Value BCF: BioConcentration Factors BEI: Biological Exposure Index

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Issue Date: 21/01/2021