

Date of issue: 17 March 2021
Revised by: Simonne Moses - HSNO Consultant SDS No: 1

Safety Data Sheet

Cadweld Plus

Classified as: Hazardous according to the EPA Hazardous Substances
(Hazard Classification) Notice 2020.

Section 1: SUBSTANCE AND SUPPLIER DETAILS

Product Name: Cadweld Plus

Other: Inclusive of material types: F20, F80, F33, XF19, F76
Applicable prefixes: ACB, ACC, SCC, SB, PB, CA, XF

Supplier: TransNet NZ Ltd
78 Cryers Road
East Tamaki
Auckland 2013
New Zealand

Phone: +64 9 274 3340

Website: www.transnet.co.nz

Recommended Use: Exothermic welding material

In Case of Emergency Contact:

National Poisons Centre: 0800 POISON (0800 764 766)

Section 2: HAZARDS IDENTIFICATION

Cadweld Plus is classified as a Dangerous Good for Transport.

Cadweld Plus is classified as hazardous according to criteria in the EPA Hazardous Substances (Hazard Classification) Notice 2020 and based on ingredient classifications in the European Chemical Database and NZ Chemical Classification Database.

Classified under the group standard "Metal Industry Products (Subsidiary Hazard) Group Standard 2020"

HSNO APPROVAL NUMBER: **HSR002612**

HSNO CLASSIFICATIONS: 6.1D – Acutely toxic, oral
6.1D – Acutely toxic, inhalation
8.3A – Corrosive to eyes
6.9B – Harmful to human target organs or systems, repeated exposure
9.1A – Very ecotoxic in the aquatic environment, acute and chronic

GHS Classification: Acute toxicity, oral – Category 4
Acute toxicity, inhalation – Category 4
Serious eye damage/eye irritation - Category 1
Specific target organ toxicity, repeated exposure – Category 2

Aquatic toxicity (acute) – Category 1
Aquatic toxicity (chronic) – Category 1

Hazard Statements:

H302 Harmful if swallowed
H332 Harmful if inhaled
H318 Causes serious eye damage
H373 May cause damage to organs (lungs, liver, kidneys) through prolonged or repeated exposure via inhalation or ingestion.
H400 Very toxic to aquatic life
H410 Very toxic to aquatic life with long lasting effects

GHS Pictograms:



DANGER

PREVENTION STATEMENTS:

P102 – Keep out of reach of children.
P260 – Do not breathe dust/fume.
P264 - Wash hands, exposed skin, thoroughly after handling.
P270 – Do not eat, drink, or smoke when using this product.
P271 – Use only outdoors or in a well-ventilated area.
P273 - Avoid release to the environment.
P280 - Wear protective gloves, protective clothing, eye protection, face protection.

RESPONSE STATEMENTS:

P301 + P312 – IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell.
P330 – Rinse mouth.
P304 + P340 + P312 – IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE or doctor/physician if you feel unwell.
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.
P391 – Collect spillage.

DISPOSAL

P501 - In accordance with the Consolidated EPA Hazardous Substances (Disposal) Notice 2017. Refer to Section 13 of this SDS.

Other: Accumulation of dust in air may cause dust explosion. Inhalation of dust or fumes may cause metal fume fever. Improper use of the product or inadequate preparation of the conductors, moulds or surroundings can result in aggressive reactions. High temperatures above ignition temperature can result in self-propagating reaction. Molten product can cause serious burns.

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

Main Component	CAS Number	Concentration
Dicopper Oxide	1317-39-1	25 - 85%
Copper Oxide	1317-30-8	1 - 30%
Copper	7440-50-8	1 - 30%
Aluminium (stabilised)	7429-90-5	5 - 10%
Calcium Fluoride	7789-75-5	1 - 5%
Tin	7440-31-5	1 - 5%

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Section 4: FIRST AID MEASURES

Workplace Facilities Required:	Eye wash and safety shower facilities should be provided.
If Inhaled:	If inhalation of fumes/dust occurs, remove to fresh air. Seek medical attention if symptoms persist.
In Contact with Eye:	Hold eyes open, flush with water for at least 15 minutes. Seek immediate medical attention.
In Contact with Skin:	Wash skin thoroughly with water, while removing contaminated clothing and shoes. Wash contaminated clothing before re-use. Seek medical attention if skin irritation develops and persists.
If Swallowed:	Rinse mouth. Give small quantities of water. Never give anything by mouth to an unconscious person. Keep under observation and seek medical attention if symptoms occur and persist. If vomiting occurs, keep head below hips to prevent aspiration to lungs.
Advice to Doctor:	Treat symptomatically. Possible symptoms from inhalation include metal fume fever resulting in nausea, headache, and fatigue. Exposure to molten product or hot equipment will result in thermal burns.

Section 5: FIRE FIGHTING MEASURES

Fire/Explosion Hazard:	Product is not flammable or combustible.
Suitable Extinguishing Media:	Extinguish with dry sand or large amounts of water. Contain fire water. Do not use hand water buckets or hand pumps as this may cause pockets of super-heated steam.
Precautions in Connection with Fire:	May give off noxious fumes and dense smoke in a fire.
Advice for firefighters:	Wear full firefighting gear and self-contained breathing apparatus. Remove containers from path of fire if safe to do so.

Section 6: ACCIDENTAL RELEASE MEASURES

An emergency response plan is required under Part 5 of the Health and Safety at Work (Hazardous Substances) Regulations 2017 when held in quantities greater than 100kg.

Precautions:	Clear area of all unprotected personnel. Keep unnecessary and unprotected personnel from entering area. Avoid generating fumes/dust. Avoid release to the environment.
Suitable Protective Equipment:	Emergency responders must use personal protective equipment, including gloves, protective overalls and footwear, safety goggles or face shield and respiratory protection if there is a risk of inhaling fumes/dust.
Spill or Leak Procedures.	Contain the spill. Collect spilled material and place in a suitable, closable chemical waste container. Ensure waste container is properly labelled.
Waste Disposal Methods:	Dispose of as per Section 13.
Emergency preparation:	Ensure there is appropriate and adequate personal protective equipment, trained personnel and clean up materials for management of accidental release.

Section 7: HANDLING AND STORAGE

Precautions for Safe Handling:	Avoid contact with skin and eyes. Do not breathe fumes/dust. Use in a well-ventilated area. Use appropriate welding equipment. Do not eat drink or smoke when using this product. Remove contaminated clothing and wash hands and face before entering eating areas.
Storage:	Store in a clean, dry, secure location. Keep in original container. Keep container tightly closed when not in use.
Site Storage Requirements:	Site Signage will be required when quantities exceed 100kg.

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Workplace Exposure Standards NZ:	No Workplace Exposure Standards have been established for this product but have been established for the following ingredients: Copper and its inorganic compounds as Cu, TWA 0.01 mg/m ³ (respirable dust) Aluminium, metal dust (as Al), TWA 10 mg/m ³ Aluminium welding fumes, TWA 5 mg/m ³ Tin, metal, TWA 2 mg/m ³ Fluorides as F, TWA 2.5 mg/m ³
Engineering Controls:	Eyewash facilities and safety showers should be provided in the work area where there is a risk of exposure to eyes and skin. If use generates fumes/dust, use engineering controls such as local exhaust ventilation to ensure workers are not exposed to levels exceeding the exposure standards. General workplace safety measures to protect workers against welding hazards should be in place.
Personal Protective Equipment:	Avoid contact with the skin and eyes. Avoid inhaling fumes/dust. PPE should provide maximum protection from sparks and hot metals.

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Hand protection: Wear heat insulated protective gloves suitable for welding. Refer to Australian and New Zealand Standard AS/NZS 2161 for protective gloves.

Skin and body protection: Use protective overalls that fully covers arms and legs. Wash work clothes regularly. Refer to Australian and New Zealand Standard AS/NZS 4501 for occupational protective clothing.

Eye protection: Use purpose designed welding helmet to protect from arc rays and sparks. Wear safety goggles under helmet to protect against metal chips and fragments. People present in the vicinity of welding should also wear shaded eye protection that protects against arc rays. Refer to AS/NZS 1336 for suitable eye and face protection.

Respiratory protection: Where there is inadequate ventilation, use a respirator suitable for dust and metal fumes. Refer to AS/NZS 1715 and AS/NZS 1716 for suitable respiratory protection. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Other information: PPE selected must be impervious to the substance. Do not eat, smoke, or drink where material is handled, processed, or stored. Wash hands carefully before eating, drinking, or smoking. Handle in accordance with safe industrial hygiene practices.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Description:	Granular	Colour:	Grey black
Odour:	None	Odour Threshold:	Not relevant
pH (20°C):	Not relevant	Solubility (water, 20°C):	Insoluble
Melting point:	1093°C	Boiling Point:	Not available
Flammability:	Non-flammable	Flash Point:	Not relevant
UEL/LEL:	Not relevant	Vapour Pressure (20°C):	Not relevant
Vapour Density:	Not relevant	Evaporation Rate:	Not relevant
Decomposition Temp:	Not available	Autoignition Temp:	>950°C
Relative Density:	5.5 (water =1)	Particle characteristics:	Not available
Partition Coefficient: n-octanol/water	Not available	Viscosity:	Not relevant

Section 10: STABILITY AND REACTIVITY

Stability: Stable under normal dry, cool storage conditions.

Reactivity: May react with excess moisture present in the mould or on the conductors to be welded. Ensure proper preparation of welding surfaces.

Conditions to Avoid: Keep away from extreme high temperatures.

Incompatibility: Keep away from strong acids, strong oxidisers, combustible materials.

Hazardous Decomposition: None under normal conditions of storage and use. Noxious gases and dense smoke may form during a fire.

Section 11: TOXICOLOGICAL INFORMATION

Acute Exposure

Acute Toxicity:	LD50 oral > 300 - ≤ 2000 mg/kg. LD50 dermal > 5000 mg/kg LC50 inhalation > 1 - ≤ 5 mg/L (dust)
Inhalation:	Inhalation of fumes or dust could cause coughing, shortness of breath and symptoms of metal fume fever including nausea, headache and fatigue.
Ingestion:	May cause nausea, headache, dizziness.
Skin Contact:	Dust may cause mechanical irritation to skin.
Eye Contact:	Corrosive to eyes.
Sensitiser:	Not expected to be a contact or respiratory sensitiser.

Chronic Exposure:

Mutagen/Carcinogen/Reproductive Toxicant	No chronic toxicity effects expected.
Specific Target Organ Systemic Toxicity:	May be harmful on prolonged or repeated exposure via ingestion and inhalation. May cause lung diseases, may cause adverse effects on the liver and kidneys. Toxicity data is based on hazardous ingredient information and information in the EPA Chemical Classification and Identification Database and European Classification Database.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity:	LC/EC ₅₀ <1 mg/L. Product is very ecotoxic in the aquatic environment with long-lasting effects. Avoid losses of product to the environment wherever possible.
Persistence/degradability:	Not biodegradable.
Bioaccumulation:	No data available.
Mobility:	Product is insoluble in water. Ecotoxicity data is based on hazardous ingredient information.

Section 13: DISPOSAL CONSIDERATIONS

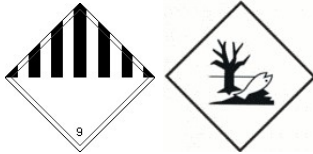
Disposal:	Recycle and reuse wherever possible. Dispose of waste product via an approved waste disposal contractor.
Disposal of Packaging:	Packaging may contain product residues and should be treated as hazardous.

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Dispose of packaging via an approved waste disposal contractor.

Section 14: TRANSPORT INFORMATION

Cadweld Plus is classified as a Dangerous Good for transport in accordance with NZS5433:2012, IMDG or IATA.



NZS5433:2012

UN No: 3077

Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s. (Dicopper oxide)

Class: 9

Packing Group: III

Limited Quantity: 5kg

IMDG:

UN No: 3077

Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s. (Dicopper oxide)

Class: 9

Packing Group: III

Marine Pollutant: Yes

EmS: F-A, S-F

Limited Quantity: 5kg

IATA:

UN No: 3077

Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s. (Dicopper oxide)

Class: 9

Packing Group: III

ERG Code: 9L

Ensure transportation methods prevent leakage from packages and collapsing loads.

Section 15: REGULATORY INFORMATION

Group Standard Allocation: Metal Industry Products (Subsidiary Hazard) Group Standard 2020

HSNO Approval Code: HSR002612

Classifications:
Acute toxicity, oral, Category 4
Acute toxicity, inhalation, Category 4
Serious eye damage/eye irritation, Category 1
Specific target organ toxicity, repeated exposure, Category 2
Aquatic toxicity (acute), Category 1
Aquatic toxicity (chronic), Category 1

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This substance triggers:	Compliance Certificate	N/A
	Certified Handler	N/A
	Emergency Response Plan	100kg
	Secondary Containment	N/A
	Signage	100kg

This substance is not required to be Tracked. All workplace personnel handling this substance are required to be trained on the safe handling and PPE requirements for the hazards associated with this substance.

Section 16: OTHER INFORMATION

The information provided in this Safety Data Sheet relates only to the specific material designated herein. This Safety Data Sheet summarises our best knowledge of the health and safety hazard information of the product and how to safely handle the product in the workplace. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace including its use in conjunction with other products.

This substance is approved under HSNO for use as a welding material. All reasonable care has been taken to ensure that the information and advice contained herein are from sources believed to be reliable and to represent the most up-to-date knowledge available at the date given in Section 16. No liability is assumed for any damages related to the use or misuse of this substance.

All chemical materials may present unknown hazards as people have varying degrees of sensitivity to chemicals. Therefore, this product should be used with caution. The information herein is given in good faith, but no warranty, express or implied is made.

SDS Issued: 17 March 2021

Reason for Revision: Update to New Zealand regulatory requirements.

References:

EPA NZ Chemical Classification and Information Database
European Chemical Classification Database
EPA Guide: Assigning a Hazardous Substance to a Group Standard, 2014

END OF SAFETY DATA SHEET