

Kleanium Circuit Board Cleaner Aerosol

Material Safety Data Sheet

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Chemtools Kleanium Circuit Board Cleaner Aerosol
Product Type: Flux solvent for industrial use.
Part Numbers: CT-FRHD-300, -300AJ
Company Address: Chemtools Pty., Ltd.,
PO Box 463, Emu Plains, NSW 2750
Ph: 1300 738 250
EMERGENCY PHONE: Australia: Poisons Information Centre 13 1126
International: Infotrac (708) 918 1900

2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components	CAS #	%	HSIS TWA	HSIS STEL
2-methyl pentane	107-83-5	30 - 60	500ppm 1,760mg/m ³	1,000ppm 3,500/m ³
propan-2-ol	67-63-0	30 - 60	400ppm 983mg/m ³	500ppm 1,230mg/m ³
acetone	67-64-1	<30	500ppm 1,185mg/m ³	1,000ppm 2,375mg/m ³
cyclohexane	110-82-7	<10	100ppm 350mg/m ³	300ppm 1050mg/m ³
n-hexane	110-54-3	<10	20ppm 72mg/m ³	
carbon dioxide	124-38-9	<10	5,000ppm 9,000mg/m ³	30,000ppm 54,000mg/m ³

3. HAZARDS IDENTIFICATION

Hazard Classification: Hazardous Material, Dangerous Goods according to the criteria of SafeWork Australia and the ADG-7 code)

Risk Phrases:
R11 – Highly flammable
R22 – Harmful if swallowed
R36/38 – Irritating to eyes and skin.
R66 - Repeated exposure may cause skin dryness or cracking.
R67 – Vapours may cause drowsiness and dizziness.
R51 - Toxic to aquatic organisms.
R52 - Harmful to aquatic organisms.
R53 - May cause long-term adverse effects in the aquatic environment.

Safety Phrases:
S2 - Keep out of reach of children.
S9 - Keep container in a well-ventilated place.
S16 - Keep away from sources of ignition - No smoking.
S20 – When using do not eat or drink
S21 – When using do not smoke
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S46 - If swallowed, seek medical advice immediately and show this container or label.
S51 – Use only in well ventilated areas.
S24/25 – Avoid contact with skin and eyes.

Relevant routes of exposure: Skin, Inhalation, Eyes

Potential Health Effects

Inhalation: May cause respiratory tract irritation. High concentrations of vapours may cause headache, fatigue, drowsiness and dizziness.

Skin contact: May cause allergic skin reaction. May cause skin irritation. Product has a defatting effect on skin.
Prolonged contact may cause dryness of skin.

Eye contact: Contact with eyes will cause irritation.

Ingestion: Harmful. May cause lung damage if swallowed.

4. FIRST AID MEASURES

Inhalation: Remove to fresh air. If symptoms develop and persist, get medical attention.

Skin contact: Wash with soap and water. Remove contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if symptoms occur.

Eye contact: Check for and remove any contact lenses. Immediately flush with copious amounts of water, preferably, lukewarm water for at least 15 minutes, holding eyelids open all the time. Get medical attention.

Ingestion: Do not induce vomiting. Rinse mouth thoroughly. Loosen any tight clothing. Keep individual calm.
Obtain medical attention.

5. FIRE-FIGHTING MEASURES

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Flash point:	-17°C Cleveland closed cup
Autoignition temperature:	300°C
Flammable/Explosive limits-lower %:	1.2%
Flammable/Explosive limits-upper %:	57%
Extinguishing media:	Foam, dry chemical or carbon dioxide.
Special fire fighting procedures:	None
Unusual fire or explosion hazards:	None
Hazardous combustion products:	Oxides of carbon. Irritating organic vapours. Keep run-off water out of sewers and water sources.
Hazchem Code:	2[Y]E

6. ACCIDENTAL RELEASE MEASURES

Environmental precautions:	Extinguish all ignition sources. Ventilate well. Use approved respirator if air contamination is above accepted level. Prevent product from entering drains or open waters.
Clean-up methods:	Soak up with inert absorbent. Store in a partly filled, closed container until disposal.

7. HANDLING AND STORAGE

Handling:	Avoid contact with eyes, skin and clothing. Avoid breathing vapour and mist. Wash thoroughly after handling.
Storage:	For safe storage, store at or below 38°C (100°F). Keep in a cool, well-ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use.
Incompatible products:	Refer to Section 10.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls:	No specific ventilation requirements noted, but forced ventilation may still be required if concentrations exceed occupational exposure limits.
Respiratory protection:	Use NIOSH approved respirator if there is potential to exceed exposure limit(s).
Skin protection:	Use impermeable gloves and protective clothing as necessary to prevent skin contact. Neoprene gloves. butyl rubber gloves. Natural rubber gloves.
Eye/face protection:	Safety goggles or safety glasses with side shields.
See Section 2 for exposure limits.	

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid in Aerosol Canister
Colour:	Clear, colourless.
Odour:	Organic solvents.
pH:	Not available
Boiling point/range:	56-82°C.
Melting point/range:	Not available
Specific gravity:	0.734 at 20°C.
Vapour density:	>1
Evaporation rate:	Not available
Solubility in water:	Insoluble.

10. STABILITY AND REACTIVITY

Stability:	Stable.
Hazardous polymerization:	Will not occur.
Hazardous decomposition products:	Oxides of carbon.
Incompatibility:	Strong oxidizers. Strong reducing agents.
Conditions to avoid:	See "Handling and Storage" (Section 7) and "Incompatibility" (Section 10).

11. TOXICOLOGICAL INFORMATION

Product toxicity data:	
2-methyl pentane	Expected to be of low toxicity: LD ₅₀ >2000mg/kg, Rat. Aspiration into lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.
n-hexane	Oral: LD ₅₀ 28,710 mg/Kg (rat). Irritation eye: 10 mg mild (rabbit). Investigated as a tumorigen, mutagen and reproductive effector. Carcinogenic effects: None by IARC
Isopropyl alcohol	Oral: LD ₅₀ 5,045 mg/Kg (rat). Skin: LD ₅₀ 12.8g/Kg (rabbit) Inhalation LC ₅₀ : 16,000ppm/8hr (rat) Investigated as a tumorigen, mutagen, and reproductive effector. Carcinogenic effects: IARC Category 3
Acetone	LD ₅₀ Oral - rat - 5,800 mg/kg Remarks: Behavioural: Altered sleep time (including change in righting reflex). Behavioural: Tremor. LC ₅₀ Inhalation - Rat - 8 h - 50,100 mg/m ³

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Cyclohexane

LD₅₀ Dermal - Guinea Pig - 7,426 mg/kg

Irritation and corrosion

Skin - Rabbit - Mild skin irritation - 24 h

Eyes - Rabbit - Eye irritation - 24 h

Sensitisation Chronic exposure may cause dermatitis.

Chronic exposure: This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Oral: LD₅₀ >2,000 mg/Kg (rat). Skin: LD₅₀ >2g/Kg (rat) Inhalation LC₅₀: >20mg/L/4hr (rat) Investigated as a carcinogen.

12. ECOLOGICAL INFORMATION

Ecological information: Dangerous to the environment if discharged into watercourses.

13. DISPOSAL CONSIDERATIONS

Recommended method of disposal: Dispose of according to Federal, State and local governmental regulations.

14. TRANSPORT INFORMATION

Domestic (Land) ADG:

Proper shipping name: AEROSOLS
UN No.: 1950
Hazard class or division: 2[Y]E
Packing group: None allocated

IMDG:

Proper shipping name: AEROSOLS
Identification No.: UN1950
Hazard class or division: 2.1
Packing group: None allocated
Marine Pollutant: No

International Air Transportation (ICAO/IATA):

Proper shipping name: AEROSOLS
Hazard class or division: 2.1
Identification number: 1950
Packing group: None allocated



15. REGULATORY INFORMATION

Poisons Schedule (SUSDP): Not Listed.
GHS Pictograms:



16. OTHER INFORMATION

Abbreviations/Acronyms:

NOHSC – National Occupational Health and Safety Commission.
NIOSH – National Institute of Occupational Health and Safety.
ACGIH – American Conference of Government Industrial Hygienists.
HSIS – Hazardous Substances Information System
SUSDP – Standard for the Uniform Scheduling of Drugs and Poisons.
TWA – Time Weighted Average
TLV – Threshold Limit Value.
STEL – Short Term Exposure Limit
PEL – Permissible Exposure Limit
SUSDP – Standard for the Uniform Scheduling of Drugs & Poisons.
ADG – Australian Dangerous Goods
IARC – International Agency for Research on Cancer

Date of MSDS: December 2012

DISCLAIMER:

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The information contained within this MSDS applies only to the Chemtools product to which the sheet relates. The information provided is based on our best knowledge at the time of issue.

The information contained within this MSDS is believed to be accurate and is given in good faith. However, no warranty is made, either expressed or implied, regarding its accuracy or any liability arising out of the use of the information herein or the product supplied.

When used in other preparations, formulations, or in mixtures, it is necessary to ascertain whether the classifications of the hazards have changed. The attention of the user is drawn to the possibility of creating other hazards when the product is used for purpose other than that for which it was recommended. In such cases, a reassessment may be necessary and should be made by the user.

This safety data sheet should only be used and reproduced in order that the necessary measures are taken relating to the protection of health and safety at work.

It is the responsibility of the handlers to pass on the totality of the information contained within this document to any subsequent person(s) who will come in to contact with, handle or use this product in any way.

They should check the adequacy of the information provided within this MSDS before passing it on to their customers/staff.

End of MSDS



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