



## A NEW FORCE IN CHEMICAL MANUFACTURING

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# SAFETY DATA SHEET

ISSUED SEPTEMBER 2014 (VALID 5 YEARS FROM DATE OF ISSUE)

## ECS KLEANIUM ELECTRONIC CLEANING SOLVENT AEROSOL

### SECTION 1 - IDENTIFICATION OF THE MATERIAL

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**PRODUCT NAME** Kleanium Electronic Cleaning Solvent Aerosol  
**PRODUCT TYPE** Flux Solvent for Industrial Use  
**PART NUMBER** CT-ECS-230  
**AVAILABLE SIZES** 230g

### SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS COMPONENTS	CAS #	%	HSIS TWA	HSIS STEL
2-methyl pentane	110-54-3	60-100	500ppm 1760mg/m <sup>3</sup>	1000ppm 3500mg/m <sup>3</sup>
Cyclohexane	110-82-7	<10	100ppm 350mg/m <sup>3</sup>	300ppm 1050mg/m <sup>3</sup>
n-hexane	107-83-5	<10	20ppm 72mg/m <sup>3</sup>	
Carbon dioxide	124-38-9	<10	5000ppm 9000mg/m <sup>3</sup>	30,000ppm 54,000mg/m <sup>3</sup>

### SECTION 3 - HAZARDS IDENTIFICATION

**Hazard Classification:** Dangerous Goods. Highly flammable and Hazardous according to the criteria Of SafeWork Australia and the ADG Code.

**Risk Phrases:**  
R11 - Highly flammable  
R51 - Toxic to aquatic organisms  
R53 - May cause long term adverse effects on the aquatic environment  
R65 - Harmful: May cause lung damage if swallowed  
R66 - Repeated exposure may cause skin dryness or cracking  
R67 - Vapours may cause drowsiness and dizziness

**Safety Phrases:**  
S2 - Keep out of the reach of children  
S9 - Keep container in a well-ventilated place

S16 - Keep away from sources of ignition - No smoking  
S23 - Do not breathe vapour  
S24 - Avoid contact with skin  
S29 - Do not empty into drains  
S33 - Take precautionary measures against static discharge  
S36/37 - Wear suitable protective clothing and gloves  
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show label where possible)  
S53 - Avoid exposure-obtain special instructions before use  
S61 - Avoid release to the environment  
S62 - If swallowed, do not induce vomiting: seek medical advice immediately and show container or label

**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.

#### **SECTION 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.

#### **SECTION 5 - FIRE FIGHTING MEASURES**

**Flash point:** -7°C (CC)

**Autoignition temperature:** 306°C (ASTM E-659)

**Flammable/Explosive limits-lower %:** 1.2%

**Flammable/Explosive limits-upper %:** 7%

**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

#### **SECTION 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.

## SECTION 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.

## SECTION 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.

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

**Physical state:** Liquid in aerosol canister

**Colour:** Clear, colourless.

**Odour:** Organic solvents.

**pH:** Not available

**Boiling point/range:** 60-62°C.

**Melting point/range:** Not available

**Specific gravity:** 0.65 at 25°C.

**Vapour density:** 3.0

**Evaporation rate:** Not available

**Solubility in water:** Insoluble.

## SECTION 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).

## SECTION 11 - TOXICOLOGICAL INFORMATION

### HEALTH EFFECTS

**Acute:**

**Swallowed:** Expected to be of low toxicity: LD<sub>50</sub>>2000mg/kg, Rat. Aspiration into lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.

<b>Eye:</b>	Expected to be non-irritating to eyes.
<b>Skin:</b>	Irritating to skin. Prolonged contact may cause defatting of skin which can lead to dermatitis.
<b>Inhaled:</b>	Not expected to be a respiratory irritant. High concentrations may cause central nervous system depression resulting in headaches, dizziness and nausea; continued inhalation may result in unconsciousness and/or death.
<b>Chronic:</b>	Central nervous system: repeated exposure effects the nervous system. Causes foetal toxicity in animals at doses which are maternally toxic. Affects reproductive system in animals at doses which produces other toxic effects (n-Hexane).

## SECTION 12 - ECOLOGICAL INFORMATION

### Ecological information:

<b>Ecotoxicity:</b>	Fish :	Expected to be toxic: 1 <LC/EC/IC <sub>50</sub> <=10 mg/l
	Aquatic Invertebrates :	Expected to be toxic: 1 <LC/EC/IC <sub>50</sub> <=10 mg/l
	Algae :	Expected to be toxic: 1 <LC/EC/IC <sub>50</sub> <=10 mg/l
	Microorganisms :	Expected to be toxic: 1 <LC/EC/IC <sub>50</sub> <=10 mg/l
<b>Mobility:</b>	Floats on water. Adsorbs on soil.	
<b>Persistence/degradability:</b>	Readily biodegradable. Oxidises by photo-chemical reactions in air.	
<b>Bioaccumulation:</b>	Has the potential to bioaccumulate.	

## SECTION 13 - DISPOSAL CONSIDERATIONS

<b>Recommended Method of Disposal:</b>	Dispose of according to Federal, State and Local governmental regulations.
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## SECTION 14 - TRANSPORT INFORMATION

### Domestic (Land) ADG:

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



### IMDG:

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



### International Air Transportation (ICAO/IATA):

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

## SECTION 15 - REGULATORY INFORMATION

<b>Poisons Schedule (SUSDP):</b>	5
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**NOHSC:**

Hazardous

**GHS Pictograms:****SECTION 16 – OTHER INFORMATION**

**Abbreviations/Acronyms:**

- ADG – Australian Dangerous Goods.
- AICS – Australian Inventory of Chemical Substances.
- HSIS - Hazardous Substances Information System.
- IARC – International Agency for Research on Cancer.
- NIOSH – National Institute of Occupational Health and Safety.
- NOS – Not Otherwise Specified.
- PEL – Permissible Exposure Limit.
- STEL – Short Term Exposure Limit.
- SWA – SafeWork Australia, formally ASCC and NOHSC.
- SUSDP – Standard for the Uniform Scheduling of Drugs and Poisons.
- TLV – Threshold Limit Value.
- TWA – Time Weighted Average.

**DISCLAIMER**

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 purposes 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.