



MATERIAL SAFETY DATA SHEET

Date of Issue: September 2007

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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Kleanium VC
Product Type: Solvent
Company Address: ChemTools Pty. Ltd., PO Box4319, Penrith, NSW 2750
Ph: (02) 4735 3126
EMERGENCY PHONE: Australia: Poisons Information Centre 13 1126
International: Infotrac (708) 918 1900

2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components	CAS #	%	TWA(NOHS)	STEL(NOHS)
1-bromopropane	106-94-5	80-90	not set *	not set *
Propan-2-ol	67-63-0	5-10	400ppm (983mg/m ³)	500ppm (1,230mg/m ³)
Stabiliser	Proprietary	5-10	not set	not set

* Although not set, a benchmark concentration 95th percentile lower confidence limit of 305 ppm (1,534 mg/m³) was identified from a rat inhalation developmental toxicity study. US EPA recommends a level of 50-100ppm

3. HAZARDS IDENTIFICATION

Statement of Hazardous nature: This product is classified as: Hazardous according to the criteria of ASCC Australia
Not a Dangerous Good according to the Australian Dangerous Goods Code

Risk Phrases:
R20/22 Harmful by inhalation
R36/37/38 Irritating to eyes/respiratory system/skin
R48 Danger of serious damage to health bt prolonged exposure
R60 May impair fertility
R63 Possible risk of harm to the unborn child

Safety Phrases:
S15 Keep away from heat
S20 When using do not eat or drink
S23 Do not breath fumes/spray
S24/25 Avoid contact with skin/eyes
S36/37/39 Wear suitable protective clothing/gloves/eye/face protection
S38 In case of insufficient ventilation, wear suitable respiratory equipment

Relevant routes of exposure: Skin, Inhalation, Eyes

Potential Health Effects
Inhalation: May irritate the nose, throat and lungs. Exposure to high doses may cause CNS depression (anaesthetic like effects). Doses which cause aesthetic-like effects may also cause effects in liver, lung and kidney.
Skin contact: May cause allergic skin reaction. May cause skin irritation.
Eye contact: Contact with eyes will cause mild irritation.
Ingestion: Not expected to be harmful by ingestion. Low order of toxicity. May cause nausea and abdominal discomfort

4. FIRST AID MEASURES

Inhalation: Remove to fresh air. If symptoms develop and persist, get medical attention. If not breathing, give artificial respiration

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

Eye contact: 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. Keep individual calm. Obtain medical attention.

5. FIRE-FIGHTING MEASURES

Flash point: No flash point ASTM D93 Method A
Autoignition temperature: Not available
Flammable/Explosive limits-lower %: 4.6%
Flammable/Explosive limits-upper %: 8.5%
Extinguishing media: Foam, dry chemical or carbon dioxide.
Special fire fighting procedures: None

Unusual fire or explosion hazards: None
Hazardous combustion products: In fires, toxic and corrosive gasses may be released

6. ACCIDENTAL RELEASE MEASURES

Environmental precautions: 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
Colour: Clear colourless
Odour: ethereal
Vapour pressure: >100mm Hg at 20°C (68°F)
pH: No data
Boiling point/range: 71°C (160°F)
Melting point/range: -110°C
Specific gravity: 1.32 at 25°C (77°F)
Vapour density: >1 (Air=1)
Evaporation rate: <1 (Bu Ac=1)
Solubility in water: 2.4g/L at 20°C

10. STABILITY AND REACTIVITY

Stability: Stable.
Hazardous polymerization: Will not occur.
Hazardous decomposition products: Thermal decomposition products are known to be hazardous.
Incompatibility: Strong mineral acids. Strong oxidisers. Prolonged contact with aluminium, magnesium and zinc metals should be avoided.
Conditions to avoid: See "Handling and Storage" (Section 7) and "Incompatibility" (Section 10).

11. TOXICOLOGICAL INFORMATION

Product toxicity data:
1-bromopropane: LD₅₀ /oral/rat = 4,260 mg/kg
LD₅₀ /oral/rabbit = 540 mg/kg
LC₅₀ /rat = 253,000 mg/m³/0.5 hour
Propan-2-ol: LD₅₀ /oral/rat = 5,500 mg/kg
LD₅₀ /dermal/rabbit = 12,900 mg/kg
LC₅₀ /rat = 19,000ppm (female) 22,500ppm (male)

12. ECOLOGICAL INFORMATION

Ecological information: Insufficient data available
Ecotoxicity LC₅₀ /Fathead Minnow 67.3 mg/L;96hr
EC₅₀ /Daphnia 208.9 mg/L;24hr



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13. DISPOSAL CONSIDERATIONS

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

14. TRANSPORT INFORMATION

ADG Code: This product is not classified as a Dangerous good. No special transport conditions are necessary unless required by other regulations.

15. REGULATORY INFORMATION

AICS: All of the significant ingredients in this formulation are compliant with NICNAS regulations.

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 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.