


1. Identification

Product Code **1111656**

Product Name **KOVACS REAGENT**

CAS Number **Mixture**

Supplier: **CAMLAB LIMITED**
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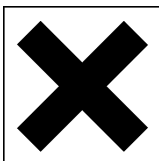
Emergency Telephone **08:00–17:00 01954 233110**
24hr 112
(Have this document to hand)

2. Composition

Component	CAS No	EEC No	Conc w/w	Classification & Risk Phrases	Exp (See 8.1)
Amyl alcohol	Mixture	250-378-8	75.0%	R10,R20	WEL
Hydrochloric acid	7647-01-0	231-595-7	25.0%	R34,R37	WEL
4 dimethylaminobenzaldehyde	100-10-7	202-819-0	5.0%	None	N/A

3. Hazards Identification

Flammable. Irritating to eyes, respiratory system and skin.



4. First Aid Measures

Eyes Irrigate thoroughly with plenty of water for at least 10 minutes, holding the eye open. OBTAIN MEDICAL ATTENTION URGENTLY.

Skin Wash off skin thoroughly with water. Remove contaminated clothing immediately avoiding contamination of unaffected areas.

Inhalation Remove from exposure. Keep warm and at rest. If there is difficulty in breathing give oxygen if available. If breathing stops or shows signs of failing, apply artificial resuscitation. If unconscious place in the recovery position. OBTAIN MEDICAL ATTENTION URGENTLY.

Ingestion If conscious give plenty of water to drink. Do not induce vomiting. If there is difficulty in breathing give oxygen if available. If breathing stops or shows signs of failing, apply artificial resuscitation. If unconscious place in the recovery position. OBTAIN MEDICAL ATTENTION URGENTLY.

5. Fire Fighting Measures

Hazards Evacuate area immediately. Keep up wind. Avoid exposure to toxic vapours and fumes. Fire-fighters should wear protective clothing and breathing apparatus. Vapour-air mixtures are explosive.

Extinguishing Media Water spray, alcohol resistant foam, dry powder or carbon dioxide. Use water spray to keep fire exposed containers cool.

Unsuitable Media Do not use water jet.

6. Accidental Release Measures

Personal Protection	Ensure no sources of ignition. Avoid breathing vapour. Use approved personal protective equipment. Evacuate area immediately. Do not allow general use of area until it is safe to do so. Beware : vapour is heavier than air and will tend to accumulate at low spots.
Environmental	Keep material out of sewers, storm drains, surface waters and soil. Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs.
Major Spillage	Contain and absorb on inert material. Transfer absorbent to salvage container for removal. Wash area down with copious amounts of water.
Minor Spillage	Contain and absorb on inert material. Transfer absorbent to container for removal. Allow solvent to evaporate in remote area, then dispose of absorbent as solid chemical waste. Wash area down with copious amounts of water.

7. Storage & Handling

Handling Precautions	All transfer systems should be earthed to prevent accumulation of static electricity. Avoid contact with skin and eyes. Do not breath vapours. Do not allow to contaminate clothing. Ensure Local Exhaust Ventilation maintains vapour concentrations below the recommended limits.
Storage Conditions	Well ventilated, cool, dry storage . Protect from direct sun and store away from sources of ignition. Keep containers closed when not in use. Keep well separated from oxidising agents.

8.1 Workplace Exposure Limits

Component	CAS No	Workplace Exposure Limits				Maximum Exposure Limits			
		Long Term		Short Term		Long Term		Short Term	
		ppm	mg m ⁻³	ppm	mg m ⁻³	ppm	mg m ⁻³	ppm	mg m ⁻³
Amyl alcohol	Mixture	100.0	360.0	125.0	450.0	-	-	-	-
Hydrochloric acid	7647-01-0	1.000	2.000	5.000	8.000	-	-	-	-
4 dimethylaminobenzaldehyde	100-10-7	No prescribed exposure limits available							

8.2 Personal Protection

Respiratory	Use L.E.V. or natural ventilation to maintain vapour concentrations below exposure limits. If not, use a well maintained chemical cartridge organic vapour respirator, or use self contained breathing apparatus.
Hands	Use solvent resistant gloves.
Eyes	Use chemical splash proof glasses or goggles.
Skin	Avoid contact with skin. If skin contact or contamination of clothing is likely, protective clothing must be worn.

9. Physical & Chemical Properties

Appearance	Clear yellow solution.
Odour	Pungent.
pH	Not available
Boiling point	131.0 °C
Melting point	117.2- °C
Flash point	42.8 °C(Closed cup)
Upper Flammable Limit	9.0 %
Lower Flammable Limit	1.2 %
Auto Ignition	350.0 °C
Explosive properties	Slight.
Oxidising Properties	No.
Vapour Pressure	3 mbar at 20 C
Relative Density	1.0000
Water Solubility	3 %

10. Stability & Reactivity

Chemical Stability	Stable under normal conditions
Conditions to Avoid	Hot surfaces, naked flames or other sources of ignition.
Materials to Avoid	Acids. Strong oxidising agents.
Hazardous Decomposition Products	None unusual. Burning will produce smoke, carbon monoxide and/or carbon dioxide.

11. Toxicological Information

Eyes	The liquid may cause severe irritation and corneal damage. High concentrations of vapour may cause severe irritation.
Skin	Repeated or prolonged contact may defat the skin producing irritation and dermatitis. Liquid can be absorbed through intact skin. Very significant absorption can lead to collapse and may even prove fatal.
LD50 Skin	Rabbit 3970 mg/Kg
Ingest	Harmful if swallowed. Ingestion may cause central nervous system depression, leading to unconsciousness. Symptoms may include salivation, thirst, difficulty in swallowing, pain, shock and vomiting.
LD50 Ingest	Oral Rat 1300 mg/kg
Inhalation	Exposure to vapour concentrations above the occupational exposure limits will produce irritation of the eyes and respiratory tract. High concentrations of vapour may effect the central nervous system acting as a narcotic.
Carcinogenicity	Not considered to be a carcinogen.
Mutagenicity	Not considered to be a mutagen.
Reproductive Effects	None identified.

12. Ecological

Readily bio-degraded in the environment.

13. Disposal Considerations

Disposal Methods	Dispose of in a licensed incinerator for organic solvents. Do not dispose of as domestic waste. Never dispose of into water courses or sewerage systems due to high risk of explosion.
Contaminated Packaging	Use a licensed waste disposer. Do not attempt to burn any residual liquids due to risk of explosion.

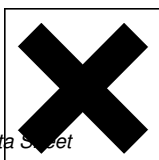
14. Transport Information

Proper Shipping Name	Non-restricted
UN Number	Non-restricted
UN Classification	None
Subsidiary Risk	None
Flash Point	42.8 °C(Closed cup)
Packing Group	None
Transport Category	None
Marine pollutant	No
ADR Hazard ID	Non-restricted

15. Regulatory Information

Labelling Classification	Flammable, Irritant.
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Label Symbols Xi



15. Regulatory Information (continued)

Risk & safety Phrases Flammable. Irritating to eyes, respiratory system and skin. Keep out of reach of children.
After contact with skin, wash immediately with plenty of water.

EEC Number Not available

16. Other Information

Document Information This document has been prepared in accordance with directive 88/379/EEC.

The information contained in this document only covers the hazards presented by this material, it DOES NOT constitute a workplace risk assessment.

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