

Infosafe No™	3CHDL	Issue Date : April 2018	RE-ISSUED by KINETIKP
--------------	-------	-------------------------	-----------------------

Product Name : **KOVAC'S REAGENT**

Classified as hazardous

1. Identification

GHS Product Identifier	KOVAC'S REAGENT
Product Code	621
Company Name	Kinetik Pty Ltd (ABN 53 605 811 532)
Address	Unit 10, 12 - 16 Robart Court, Narangba Queensland 4506 Australia
Telephone/Fax Number	Tel: 07 3203 0401 Fax: 07 3203 0421
Recommended use of the chemical and restrictions on use	Analytical reagent
Other Information	EMERGENCY CONTACT NUMBER: +61 07 3203 0401 Business hours: 8:30am to 5:00pm, Monday to Friday.

Kinetik Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon Kinetik Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of Kinetik Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

2. Hazard Identification

GHS classification of the substance/mixture	Corrosive to Metals: Category 1 Eye Damage/Irritation: Category 2A Flammable Liquids: Category 3 Acute Toxicity - Inhalation: Category 4 Skin Corrosion/Irritation: Category 2 Specific target organ toxicity - Single Exposure Category 3 (respiratory tract irritation)
Signal Word (s)	WARNING
Hazard Statement (s)	H226 Flammable liquid and vapour. H315 Causes skin irritation. H319 Causes serious eye irritation. H332 Harmful if inhaled. H335 May cause respiratory irritation. H290 May be corrosive to metals.
Pictogram (s)	Flame, Exclamation mark, Corrosion



Precautionary statement – Prevention	P210 Keep away from heat/sparks/open flames/hot surfaces. – No smoking. P233 Keep container tightly closed. P240 Ground/bond container and receiving equipment. P241 Use explosion-proof electrical/ventilating/lighting/.../equipment. P242 Use only non-sparking tools. P243 Take precautionary measures against static discharge. P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P264 Wash thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/protective clothing/eye protection/face protection. P234 Keep only in original container.
---------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Infosafe No™	3CHDL	Issue Date : April 2018	RE-ISSUED by KINETIKP
--------------	-------	-------------------------	-----------------------

Product Name : **KOVAC'S REAGENT**

Classified as hazardous

Precautionary statement – Response	Swallowed P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Skin P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P332+P313 If skin irritation occurs: Get medical advice/attention. P363 Wash contaminated clothing before reuse. Inhaled P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P310 Immediately call a POISON CENTER or doctor/physician. Eyes P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 If eye irritation persists: Get medical advice/attention. Fire P370+P378 In case of fire: Use dry sand, dry chemical, or alcohol-resistant foam for extinction. P390 Absorb spillage to prevent material damage.
Precautionary statement – Storage	P403+P233 Store in a well-ventilated place. Keep container tightly closed. P403+P235 Store in a well-ventilated place. Keep cool. P405 Store locked up. P406 Store in corrosive resistant/... container with a resistant inner liner.
Precautionary statement – Disposal	P501 Dispose of contents/container to an approved waste disposal plant.

3. Composition/information on ingredients

Chemical	Liquid				
Characterization					
Ingredients	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>	<u>Hazard Symbol</u>	<u>Risk Phrase</u>
	Pentan-1-ol	71-41-0	75 %		
	Hydrochloric Acid	7647-01-0	25 %		
	p-Dimethylaminobenzaldehyde	100-10-7	<5 %		

4. First-aid measures

Inhalation	If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Immediately obtain medical aid if cough or other symptoms appear.
Ingestion	Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek medical advice.
Skin	Wash affected areas with copious quantities of water immediately. Remove contaminated clothing and wash before re-use. Seek medical attention.
Eye contact	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek medical attention.
First Aid Facilities	Maintain eyewash fountain and safety shower in work area.
Advice to Doctor	Treat symptomatically based on judgement of doctor and individual reactions of the patient.
Other Information	For advice, contact a Poisons Information Centre (Phone eg Australia 13 1126; New Zealand 0800 764 766) or a doctor.

5. Fire-fighting measures

Hazards from Combustion Products	Main combustion products are oxides of carbon when heated to decomposition.
Specific Methods	Caution: Use of water spray when fighting fire may be inefficient. Small fire: Use foam, dry chemical, CO2 or water spray. Large fire: Use foam, fog or water spray - Do not use water jets.
Specific hazards arising from the chemical	FLAMMABLE: Low flashpoint - liquid will be easily ignited by heat, sparks or flame. Vapours will form explosive mixtures with air. Vapours may travel to source of ignition and flash back. Vapours is heavier than air and will collect in low or confined areas (drains, basements, tanks).
Hazchem Code	•3Y

Infosafe No™	3CHDL	Issue Date : April 2018	RE-ISSUED by KINETIKP
--------------	-------	-------------------------	-----------------------

Product Name : **KOVAC'S REAGENT**

Classified as hazardous

Precautions in connection with Fire Wear SCBA and fully-encapsulating, gas-tight suit when handling these substances. Structural firefighter's uniform is NOT effective for these materials.

6. Accidental release measures

Spills & Disposal ELIMINATE all ignition sources (no smoking, flares, sparks or flame) within at least 50m - All equipment used when handling the product must be earthed. Do not touch or walk through spilled material. Stop leak if safe to do so - Prevent entry into waterways, drains or confined areas. Vapour-suppressing foam may be used to control vapours - Water spray may be used to knock down or divert vapour clouds. Absorb with earth, sand or other non-combustible material. Use clean, non-sparking tools to collect absorbed material and place it into loosely-covered metal or plastic containers for later disposal. SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.

Personal Precautions Evacuate the area of all non-essential personnel. Avoid inhalation, contact with skin, eyes and clothing.

Personal Protection Wear protective clothing specified for normal operations (see Section 8)

Clean-up Methods - Small Spillages Absorb or contain liquid with sand, earth or spill control material. Shovel up using non sparking tools and place in a labelled, sealable container for subsequent safe disposal. Put leaking containers in a labelled drum or overdrum.

7. Handling and storage

Precautions for Safe Handling Avoid contact with eyes, skin, and clothing. Avoid breathing gas/fumes/vapour/spray/mist. Do not ingest. If ingested, seek medical advice immediately and show the container or the label. Avoid prolonged or repeated exposure. Wash thoroughly after handling. Wear suitable protective clothing and safety glasses. Remove contaminated clothing and wash before reuse. Ensure good ventilation/exhaustion at the workplace. In case of insufficient ventilation, wear suitable respiratory equipment. Keep away from heat and all ignition sources - Do not smoke. Take precautions against static discharge.

Conditions for safe storage, including any incompatibilities Store in cool place and out of direct sunlight. Store in well ventilated area. Store away from sources of heat or ignition. Store away from oxidizing agents. Keep containers securely sealed and protected against physical damage. Keep container tightly sealed. Keep well protected from direct sunlight and moisture. Protect against physical damage. Store in a cool, dry, well-ventilated location, away from any area where the fire hazard may be acute. Fireproof. Flammable materials should be stored in a separate safety storage cabinet or room. Keep away from heat and all sources of ignition. Separate from incompatibles, i.e. strong oxidants, alkali metals and alkaline-earth metals.

Storage Regulations Refer Australian Standard AS 1940-2004 'The storage and handling of flammable and combustible liquids'.

Storage Temperatures Store at room temperature (15 to 25 °C recommended).

Unsuitable Materials Various plastics, rubber, metals.

8. Exposure controls/personal protection

Occupational exposure limit values	Name	STEL		TWA		Footnote
		mg/m3	ppm	mg/m3	ppm	
	Hydrochloric Acid			7.5	5	Peak limitation
Other Exposure Information	A time weighted average (TWA) concentration for an 8 hour day, and 5 day week has not been established by SafeWork Australia for this product. There is a blanket limit of 10 mg/m ³ for mists when limits have not otherwise been established.					
Appropriate engineering controls	In industrial situations maintain the concentrations values below the TWA. This may be achieved by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods.					
Respiratory Protection	Where ventilation is not adequate, respiratory protection may be required. Avoid breathing vapours or mists. Select and use respirators in accordance with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. When mists or vapours exceed the exposure standards then the use of the following is recommended: Approved respirator with organic vapour and dust/mist filters. Filter capacity and respirator type depends on exposure levels.					
Eye Protection	The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.					

Infosafe No™	3CHDL	Issue Date : April 2018	RE-ISSUED by KINETIKP
--------------	-------	-------------------------	-----------------------

Product Name : **KOVAC'S REAGENT**

Classified as hazardous

Hand Protection	Hand protection should comply with AS 2161, Occupational protective gloves - Selection, use and maintenance. Recommendation: Vinyl gloves. Neoprene gloves
Personal Protective Equipment	Final choice of personal protective equipment will depend on individual circumstances and/or according to risk assessments undertaken.
Body Protection	Flame retardant antistatic protective clothing. Clean clothing or protective clothing should be worn, preferably with an apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.
Hygiene Measures	Always wash hands before smoking, eating or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

9. Physical and chemical properties

Form	Liquid
Appearance	Colourless liquid.
Boiling Point	Approx 100°C
Solubility in Water	Slightly miscible.
Specific Gravity	1.1
pH	Approx 1
Flash Point	40°C
Flammability	Flammable liquid.
Flammable Limits - Lower	1.2 vol%
Flammable Limits - Upper	10 vol%
Other Information	Taste: Burning, pungent, repulsive.

10. Stability and reactivity

Chemical Stability	Stable at room temperature in closed containers under normal storage and handling conditions.
Conditions to Avoid	Heat, ignition sources (flames, sparks), moisture, confined spaces, incompatible materials.
Incompatible Materials	Oxidizing agents, strong inorganic acids (concentrated sulfuric and nitric acid), strong bases, alkali metals, alkaline earth metals, hydrogen trisulfide, halogens, oxygen, isocyanates, aliphatic amines, powder metals.
Hazardous Decomposition Products	Carbon dioxide and carbon monoxide may form when heated to decomposition.
Possibility of hazardous reactions	Reactive with oxidizing agents, acids. Attacks many alkaline and earth alkaline metals forming flammable/explosive gas.
Hazardous Polymerization	Will not occur.

11. Toxicological Information

Acute Toxicity - Oral	LD50 (rat): 370 mg/kg. 1-Pentanol
Acute Toxicity - Dermal	LD50 (rabbit): 1306 mg/kg. 1-Pentanol
Ingestion	Causes gastrointestinal tract irritation with nausea, vomiting, diarrhea. Vomiting may cause aspiration of material into the lungs and result in chemical pneumonitis, which may be fatal. Ingestion of large amounts can affect behaviour/central nervous system/nervous system (symptoms similar to acute inhalation), liver, kidneys (abnormal renal function, glycosuria, myoglobinuria, acute renal failure, acute tubular necrosis).
Inhalation	Causes respiratory tract irritation, stinging sensation of the eyes producing lacrimation, hyperemia of the conjunctiva without significant corneal injury, nasal discomfort and discharge, chest pain, nausea, vomiting. Inhalation of high concentrations of vapour can also affect the brain, behaviour/central nervous system/nervous system, cardiovascular system, vision, respiration, liver, kidneys, and cause vertigo, delirium, ataxia, sedation, dizziness, drowsiness, giddiness, lightheadedness, headache, spastic paralysis, dyspnoea, coughing, acute pulmonary oedema, respiratory depression, hypotension, cardiac dysrhythmias, double vision, diplopia, preconvulsive movement, iritis, deafness, acute renal failure, acute tubular necrosis. In severe cases, inhalation may be fatal.

Infosafe No™	3CHDL	Issue Date : April 2018	RE-ISSUED by KINETIKP
--------------	-------	-------------------------	-----------------------

Product Name : **KOVAC'S REAGENT**

Classified as hazardous

Skin	Brief contact is not irritating. Prolonged contact may cause moderate to severe irritation with pain, redness, swelling, possible tissue damage and dermatitis. Suspected to be a systemic poison by absorption through skin; systemic effects paralleling ingestion may occur.
Eye	Vapours cause moderate to severe eye irritation. Symptoms may include lacrimation (tearing), pain, redness, swelling. Liquid contact causes severe irritation and possible burns. May cause chemical conjunctivitis and corneal damage.
Carcinogenicity	Not listed in the IARC Monographs.
Chronic Effects	Prolonged or repeated inhalation may result in pulmonary edema and lung, liver and kidney injury. Prolonged or repeated skin contact may cause dermatitis.

12. Ecological information

Ecological Information	No ecology data available for this product.
Environmental Protection	Do not allow to enter waters, waste water, or soil!

13. Disposal considerations

Disposal Considerations	Whatever cannot be saved for recovery or recycling should be disposed of according to relevant local, state and federal government regulations.
--------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------

14. Transport information

Transport Information	Dangerous Goods of Class 3 Flammable Liquids, are incompatible in a placard load with any of the following: - Class 1, Class 2.1, if both the Class 3 and Class 2.1, dangerous goods are in bulk, Class 2.3, Class 4.2, Class 5, Class 6, if the Class 3 dangerous goods are nitromethane and Class 7.
U.N. Number	2920
UN proper shipping name	CORROSIVE LIQUID, FLAMMABLE, N.O.S. - (Contains hydrochloric acid/pentanol)
Transport hazard class(es)	8
Sub.Risk	3
Hazchem Code	•3Y
Packaging Method	3.8.8
Packing Group	II
EPG Number	8B1
IERG Number	18

15. Regulatory information

Regulatory Information	Listed in the Australian Inventory of Chemical Substances (AICS).
Poisons Schedule	S6

16. Other Information

Literature References	<p>'Standard for the Uniform Scheduling of Medicines and Poisons .', Commonwealth of Australia.</p> <p>Lewis, Richard J. Sr. 'Hawley's Condensed Chemical Dictionary 13th. Ed.', Rev., John Wiley and Sons, Inc., NY, 1997.</p> <p>National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.', 2007.</p> <p>Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals', 2011.</p> <p>Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide', Standards Australia/Standards New Zealand, 2010.</p> <p>Safe Work Australia, 'Approved Criteria for Classifying Hazardous Substances [NOHSC:1008 (2004)]'.</p> <p>Safe Work Australia, 'Hazardous Substances Information System, 2005'.</p> <p>Safe Work Australia, 'National Code of Practice for the Labelling of Safe Work Hazardous Substances (2011)'.</p> <p>Safe Work Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995) 3rd Edition]'.</p>
------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Infosafe No™	3CHDL	Issue Date : April 2018	RE-ISSUED by KINETIKP
--------------	-------	-------------------------	-----------------------

Product Name : **KOVAC'S REAGENT**

Classified as hazardous

**Contact
Person/Point**

DISCLAIMER STATEMENT:

All information provided in this data sheet or by our technical representatives is compiled from the best knowledge available to us. However, since data, safety standards and government regulations are subject to change and the conditions of handling and use, or misuse, are beyond our control, we make no warranty either expressed or implied, with respect to the completeness or accuracy to the information contained herein. Kinetik Pty Ltd accepts no responsibility whatsoever for its accuracy or for any results that may be obtained by customers from using the data and disclaims all liability for reliance on information provided in this data sheet or by our technical representatives.

...End Of MSDS...

© Copyright ACOHS Pty Ltd

Copyright in the source code of the HTML, PDF, XML, XFO and any other electronic files rendered by an Infosafe system for Infosafe MSDS displayed is the intellectual property of Acohs Pty Ltd.

Copyright in the layout, presentation and appearance of each Infosafe MSDS displayed is the intellectual property of Acohs Pty Ltd.
The compilation of MSDS's displayed is the intellectual property of Acohs Pty Ltd.

Copying of any MSDS displayed is permitted for personal use only and otherwise is not permitted. In particular the MSDS's displayed cannot be copied for the purpose of sale or licence or for inclusion as part of a collection of MSDS without the express written consent of Acohs Pty Ltd.