

Material Safety Data Sheet

Product	5-Methyl-1H-1,2,3,4-Tetrazole
Synonyms	5-Methyltetrazole
CAS No.	[4076-36-2]
Emergency contact / manufacturer	Alkali Metals Ltd., Plot B-5, Block III, I.D.A, Uppal, Hyderabad – 500 039, India Tel :- +91 40 2756 3002 / 2756 2932 / 2720 1179 / 2720 2298 Fax : +91 40 2756 2364 / 2720 1454 Email :- alkalimetals@alkalimetals.com Website : www.alkalimetals.com

Physical and Chemical Properties :

Physical state	Crystalline powder	Decomposition temp.	Not available
Appearance	White to slight yellow	Autoignition temp.	Not available
Odor	Not available	Solubility	Soluble in water
PH	Mild acidic in Aq. solution	Viscosity	Not available
Boiling point	Not applicable	Specific gravity/density	Not available
Freezing / melting point	140 to 145°C	Molecular Formula	C ₂ H ₄ N ₄
Flash Point	Not available	Molecular Weight	84

Note : It is not advised to heat tetrazoles to the vicinity of melting point.

First aid measures :

Eyes	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower lids. Get medical aid immediately
Skin	Flush with plenty of water while removing contaminated clothing and shoes. Get medical aid immediately.
Ingestion	Get medical aid. Wash mouth out with water
Inhalation	Remove from exposure to fresh air. If not breathing give artificial respiration. If breathing is difficult give Oxygen. Give medical aid.

Fire fight measures :

General information	As in case of any fire use a self contaminated breathing apparatus
Extinguishing media	Use water spray, dry chemical, Carbon dioxide or chemical powder.

Accidental release measures :	
General information	Use personal protective equipment.
Spills/leaks	Clean spills using protective equipment

Handling & storage :	
Handling	Wash thoroughly after handling, remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.
Storage	Store in a cool, dry, well-ventilated area away from incompatible substances like heat, sparks and flame. Keep containers tightly closed.

Stability & Reactivity	
Chemical stability	Stable under normal temperatures and pressures.
Conditions to avoid	Incompatible materials.
Incompatible with other materials	Strong oxidizing agents - strong acids - acid chlorides - acid anhydrides.
Hazardous dec. products	Carbon monoxide, Oxides of nitrogen, Carbon dioxide.

Transport Information :			
	IATA	IMO	RID/ADR
Shipping Name	Not regulated	Not regulated	Not regulated
Hazard Class	--	--	--
UN Number	--	--	--
Packing group	--	--	--
Dangerous Goods Code	--	--	--

Additional Information :
The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall Alkali Metals Ltd., be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Alkali Metals Ltd., has been advised of the possibility of such damages.

MATERIAL SAFETY DATA SHEET

5-Methyl-1H-1,2,3,4-Tetrazole

Section 1 – Chemical Product and Company Identification

MSDS Name	5-Methyl –1H-1,2,3,4-Tetrazole
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Company Identification	Alkali Metals Ltd., Plot B-5, Block III, IDA Uppal, Hyderabad –500 039. INDIA Tel :- 0091 40 2756 3002 / 2756 2932 / 2720 2298 Fax :- 0091 40 2756 2634 / 2720 1454 Email :- alkalimetals@alkalimetals.com
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Section 2 – Composition, Information on Ingredients

CAS#	Chemical Name	%
4076-36-2	5-Methyl-1H-1,2,3,4-Tetrazole	98%

Section 3 - Hazards Identification

Harmful if swallowed

POTENTIAL HEALTH EFFECTS

Eye	May cause eye irritation.
Skin	May cause skin irritation.
Ingestion	Harmful if swallowed. May cause irritation of the digestive tract.
Inhalation	May cause respiratory tract irritation.
Chronic	Not available.

Section 4 - First aid Measures

Eyes	Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
Skin	Get medical aid. Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes.
Ingestion	Get medical aid. Wash mouth out with water.
Inhalation	Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Section 5 - Fire Fighting Measures

General Information	As in any fire, wear a self-contained breathing apparatus in pressure-demand.
Extinguishing Media	Use water spray, dry chemical, carbon dioxide, or chemical foam.

Section 6 - Accidental Release Measures

General Information	Use personal protective equipment.
Spills/Leaks	Vacuum or sweep up material and place into a suitable disposal container.

Section 7 - Handling and Storage

Handling	Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes.
Storage	Store in a cool, dry place. Store in a tightly closed container.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls	Use adequate ventilation to keep airborne concentrations low.
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PERSONAL PROTECTIVE EQUIPMENT

Eyes	Wear chemical goggles.
Skin	Wear protective gloves to prevent skin exposure.
Clothing	Wear protective clothing to prevent skin exposure.
Respirators	Use respirator.

Section 9 - Physical and Chemical Properties

Physical State	:	Crystalline powder
Appearance	:	white to yellow
Odor	:	Not available.
pH	:	Not available.
Vapor Pressure	:	Not available.
Viscosity	:	Not available.
Boiling Point	:	Not available.
Freezing/Melting Point	:	216 deg C (dec)
Autoignition Temperature	:	Not available.
Flash Point	:	Not available.
Explosion Limits, lower	:	Not available.
Explosion Limits, upper	:	Not available.
Specific Gravity/Density	:	
Molecular Formula	:	C ₆ H ₆ N ₄
Molecular Weight	:	146.0688

Section 10 - Stability and Reactivity

Chemical Stability	Not available.
Conditions to Avoid	Incompatible materials.
Incompatibilities with Other Materials	Strong oxidizing agents, strong acids, acid chlorides, acid anhydrides.
Hazardous Decomposition Products	Carbon monoxide, oxides of nitrogen, carbon dioxide.
Hazardous Polymerization	Has not been reported

Section 11 - Toxicological Information

RTECS#	CAS# 4076-36-2: XF7538750
LD50/LC50	CAS# 4076-36-2: Oral, mouse: LD50 = 890 mg/kg; Oral, rat: LD50 = 1901 mg/kg.
Carcinogenicity	5-Methyl-1H-1,2,3,4-Tetrazole - Not listed.

Section 12 - Transport Information

	IATA	IMO	RID/ADR
Shipping Name:	No information available.	No information available.	Not regulated.
Hazard Class:	-	-	-
UN Number:	-	-	-
Packing Group:	-	-	-
Dangerous Goods Code:	-	-	-

Section 13 - Additional Information

MSDS Creation Date	31/01/02
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The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.