SECTION-1: Identification of the substance / mixture and the company / undertaking

Catalogue Number	CS-ZG-18180
Product Name	Methylhydrazine
CAS No.	60-34-4
Category	Fine Chemicals
Synonyms	Methylhydrazine
Brand	Clearsynth Labs Ltd.
Identified uses	Laboratory Chemicals
Uses advised against	Not available
Company	Clearsynth Labs Ltd. Mumbai, India
Emergency Phone #	+91-22-245045900
REACH No.	Not available

SECTION 2: Hazards identification

Disclaimer: This is sample MSDS. Please email **sales@clearsynth.com** for more details.

2.1 Classification of the substance or mixture-Regulation (EC) No 1272/2008:

Skin irritation (Category 2)
Serious eye damage/eye irritation (Category 2)

2.2 Label Elements

Signal Word: Warning

Hazard Statement(s)

Code	Statement
H350	Not available
H225	Not available
H300+H310+H330	Not available

H300	Not available
H310	Not available
H314	Not available
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Not available
H334	Not available
H400	Not available
H410	Not available
H411	Toxic to aquatic life with long lasting effects.
H224	Not available
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H351	Not available
H361	Not available
H370	Not available
H372	Not available

Precautionary Statement(s)

Code	Statement
P203	Not available
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P318	Not available
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulatio
P210	Not available
P233	Not available
P240	Not available
P241	Not available
P242	Not available

P243	Not available
P260	Not available
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P262	Not available
P264	Wash hands thoroughly after handling.
P264+P265	Not available
P270	Not available
P271	Use only outdoors or in a well-ventilated area.
P272	Not available
P273	Not available
P284	Not available
P301+P316	Not available
P301+P330+P331	Not available
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P302+P361+P354	Not available
P303+P361+P353	Not available
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P354+P338	Not available
P316	Not available
P317	Not available
P320	Not available
P321	Specific treatment (see … on this label).
P330	Not available
P333+P317	Not available
P342+P316	Not available
P361+P364	Not available
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Not available
P370+P378	Not available
P391	Not available

P403	Not available
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Not available
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if presen
P308+P316	Not available
P319	Get medical help if you feel unwell.
P332+P317	If skin irritation occurs: Get medical help.
P337+P317	If eye irritation persists: Get medical help.

SECTION 3: Composition / information on ingredients

3.1 Substance

Component : Methylhydrazine
CAS Number : 60-34-4
Molecular Formula : CH6N2
Molecular Weight : 46.07
Parent Chemical : .
Synonyms : Methylhydrazine
Concentration : Not available

SECTION 4: First aid measures

Not available

SECTION 5: Firefighting measures

Not available

SECTION 6: Accidental release measures

Not available

SECTION-7: Handling and storage

Not available

SECTION 8: Exposure controls / personal protection

Not available

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Test	Result
Appearance	No data available
IR spectrum	No data available
pH	No data available
Solubility	No data available

Property	Value
a) Physical State	No data available
b) Color	No data available
c) Odor	No data available
d) pH	No data available
e) Vapour Pressure	No data available
f) Viscosity	No data available
g) Initial Boiling Point and boiling range	No data available
h) Melting Point / Freezing Point	No data available
i) Auto Ignition Temperature	No data available
j) Flash Point	No data available
k) Explosion Limit, Lower	No data available
l) Explosion Limit, Upper	No data available
m) Decomposition Temperature	No data available
n) Loss on Drying	No data available
o) Relative Density	No data available
p) Solubility (in DMSO)	No data available
q) Oxidizing Properties	No data available

SECTION 10: Stability and reactivity

Not available

SECTION 11: Toxicological information

11.1 Information on toxicological effects
- Acute toxicity: LC50 (rat) = 34 ppm/4 hr For more Human Toxicity Excerpts (Complete) data for METHYLHYDRAZINE (8 total), please visit the HSDB record page.
- Skin corrosion/irritation: Moderate to high concentrations of hydrazine vapors are highly irritating to the eyes, nose and respiratory system. Skin irritation is pronounced with the propellant hydrazines ... /Hydrazine and derivatives/
- Serious eye damage/eye irritation: No data available.
- Respiratory or skin sensitization: No data available.
- Germ cell mutagenicity: At request of the Minister of Social Affairs and Employment, the Health Council of the Netherlands evaluates the carcinogenic properties of substances at the workplace and proposes a classification with reference to the EU-directive. This evaluation is performed by the Dutch Expert Committee on Occupational Standards. The present report contains an evaluation by the committee on the carcinogenicity of N-methylhydrazine. The Committee concludes that N-methylhydrazine should be considered as carcinogenic to humans (comparable with EU-category 2). N-methylhydrazine is genotoxic. Evaluation. No data on humans are available. There is sufficient evidence for the carcinogenicity of N-methylhydrazine in experimental animals. Inhalation of N-methylhydrazine induced benign and malignant tumors in mice and hamsters and oral (drinking water) exposure caused benign tumors in mice and malignant tumors in hamsters in one experiment. No tumors were found in rats and dogs following inhalation, but the exposure time in rats may have been too short, that is 1 year instead of 2 years as recommended in OECD guideline 451. There is some evidence for mutagenic activity in in vitro bacterial systems. No mutations were induced in mammalian cell systems, but chromosome and DNA damage have been found. In vivo, N-methylhydrazine was negative in a dominant lethal assay in rats and mice and in a micronucleus test in dogs. Conflicting results were obtained with respect to DNA damage in liver in vivo assessed with the alkaline elution technique. Recommendation for classification. The committee is of the opinion that N-methylhydrazine should be considered as carcinogenic to humans. It is classified as a genotoxic carcinogen (classification comparable with EU category 2).
- Carcinogenicity: Likely to be carcinogenic to humans A3; Confirmed animal carcinogen with unknown relevance to humans.
- Reproductive toxicity: No data available.
- STOT-single exposure: No data available.
- STOT-repeated exposure: No data available.
- Aspiration hazard: No data available.

Likely routes of exposure
- At request of the Minister of Social Affairs and Employment, the Health Council of the Netherlands evaluates the carcinogenic properties of substances at the workplace and proposes a classification with reference to the EU-directive. This evaluation is performed by the Dutch Expert Committee on Occupational Standards. The present report contains an evaluation by the committee on the carcinogenicity of N-methylhydrazine. The Committee concludes that N-methylhydrazine should be considered as carcinogenic to humans (comparable with EU-category 2). N-methylhydrazine is genotoxic. Evaluation. No data on humans are available. There is sufficient evidence for the carcinogenicity of N-methylhydrazine in experimental animals. Inhalation of N-methylhydrazine induced benign and malignant tumors in mice and hamsters and oral (drinking water) exposure caused benign tumors in mice and malignant tumors in hamsters in one experiment. No tumors were found in rats and dogs following inhalation, but the exposure time in rats may have been too short, that is 1 year instead of 2 years as recommended in OECD guideline 451. There is some evidence for mutagenic activity in in vitro bacterial systems. No mutations were induced in

mammalian cell systems, but chromosome and DNA damage have been found. In vivo, N-methylhydrazine was negative in a dominant lethal assay in rats and mice and in a micronucleus test in dogs. Conflicting results were obtained with respect to DNA damage in liver in vivo assessed with the alkaline elution technique. Recommendation for classification. The committee is of the opinion that N-methylhydrazine should be considered as carcinogenic to humans. It is classified as a genotoxic carcinogen (classification comparable with EU category 2).

Symptoms related to the physical, chemical and toxicological characteristics
- All hydrazines have similar toxic local effects due to their irritant properties. The vapor is highly irritating to the eyes, upper respiratory tract, & skin ... /Hydrazines/

SECTION 12: Ecological information

Not available

SECTION 13: Disposal considerations

Not available

SECTION 14: Transport information

Not available

SECTION 15: Regulatory information

Not available

SECTION 16: Other information

Not available

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