Scientific Laboratory Supplies - Safety Data Sheet CHE2602

(in accordance with regulation (EU) 2015/830 and regulation (EC) 1272/2008)

Revision: 1.1 Revision date: 16 April 2021
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Section 1. Identification

1.1 Product Identifier CHE2602

Product Name N,N-DIMETHYLFORMAMIDE pure 2.5L.

CAS Number 68-12-2

REACH Registration No A registration number is not available as the substance or its uses are exempt, the annual tonnage does not require a registration or the registration is envisaged for a later date.

Molecular Formula $(CH_3)_2NCHO$ =73.09

1.2 Relevent identified uses of the substance or mixure & uses advised against

Uses of Material Chemical for industrial and laboratory use. Not suitable for domestic use.

1.3 Supplier Scientific Laboratory Supplies

Unit 6, Foresters Avenue
Fairham Business Park
Fairham
Nottingham
NG11 2AF
UNITED KINGDOM

Phone 0115 9821111
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Email sales@scientific-labs.com

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(24hr) 112
(Have this document to hand)

Section 2. Hazards Identification

2.1 Classification of the substance or mixture

Classification according to regulation 1272/2008/EC

Flammable liquid, category 3	H226: Flammable liquid and vapour.
Acute toxicity, category 4 (dermal)	H312: Harmful in contact with skin.
Acute toxicity, category 4 (inhalation)	H332: Harmful if inhaled.
Serious eye damage/irritation, category 2	H319: Causes serious eye irritation.
Reproductive toxicity, category 1B	H360: May damage fertility or the unborn child.

2.2 Label elements

Labelling according to regulation 1272/2008/EC

Signal word Danger

Hazard Pictograms

Hazard Statements	Flammable liquid and vapour. Harmful in contact with skin. Harmful if inhaled. Causes serious eye irritation. May damage fertility or the unborn child.
Precautionary Statements	Wear protective gloves / protective clothing / eye protection. Obtain special instructions before use. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do and continue rinsing. IF exposed or concerned: Get medical advice/attention.

Section 3. Composition

3.1 Substances

Component	CAS No.	EEC No.	REACH No.	Conc w/w	CLP Classification (1272/2008/CE)
N,N-dimethylformamide	68-12-2	200-679-5		>99%	Flam. Liq. 3,Acute Tox. 4 (D),Acute Tox. 4 (I),Eye Irrit. 2,Repr. 1B

Section 4. First Aid

4.1 Description of first aid measures

Eyes	Irrigate thoroughly with plenty of water for at least 10 minutes, holding the eye open. OBTAIN MEDICAL ATTENTION.
Skin	Wash off skin thoroughly with water. Remove contaminated clothing immediately and wash before re-use. In severe cases or if exposure has been great, OBTAIN MEDICAL ATTENTION.
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. OBTAIN MEDICAL ATTENTION.
Personal protection for first aiders	Wear protective gloves / eye protection.

4.2 Most important symptoms and effects, both acute & delayed.

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed.

No further relevant information available.

Section 5. Fire Fighting

5.1 Extinguishing media

Extinguishing Media	Alcohol resistant foam, dry powder, or carbon dioxide. Use water spray to keep fire exposed containers cool.
Unsuitable Media	Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards	Vapour-air mixtures are explosive.

5.3 Advice for firefighters

Advice for firefighters	Evacuate area immediately. Keep up wind. Avoid exposure to toxic vapours and fumes. Fire-fighters should wear protective clothing and breathing apparatus.

Section 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

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.

6.2 Environmental precautions

Enviromental	Keep material out of sewers, storm drains, surface waters and soil. Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs.

6.3 Methods and material for containment and cleaning up

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.

6.4 Reference to other sections

See section 8.2 for information on protective equipment and section 13 for information on disposal.

Section 7. Storage & Handling

7.1 Precautions for safe handling

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.

7.2 Conditions for safe storage, including any incompatibilities

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.

7.3 Specific end use(s)

See section 1.2.

Section 8. Workplace Exposure & Personal Protection

8.1 Control parameters

Component	CAS No	Concentration	Workplace Exposure Limits			
			Long Term (8hr TWA)		Short Term 15min period)	
N,N-dimethylformamide	68-12-2	>99%	5.0 ppm	10.0 mg/m-3	10.0 ppm	30.0 mg/m-3

Exposure data source(s)	IOELV: Indicative Occupational Exposure Limit Value.

8.2 Exposure controls

Respiratory Protection	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.
Hand Protection	Use solvent resistant gloves.
Eye Protection	Use tightly fitting chemical splash proof glasses or goggles.
Skin Protection	Avoid contact with skin. If skin contact or contamination of clothing is likely, protective clothing must be worn.
Special Hazards	No special precautions required.

Section 9. Physical & Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance	Clear colourless liquid.
Odour	Faint 'amine-like: odour.
pH	6.7
Boiling Point	152.8°C
Melting Point	-61°C

Flash Point	58°C (Open cup)
Upper Flammable Limit	15.2%
Lower Flammable Limit	2.2%
Auto Ignition	445°C
Explosive Properties	Moderate/severe in confined spaces.
Oxidising Properties	No.
Vapour Pressure	3.7mmHg @ 25°C
Relative Density	0.9445
Water Solubility	Completely miscible in water.

9.2 Other information

No data available.

Section 10. Stability & Reactivity

10.1	Reactivity	No data available.
10.2	Chemical Stability	Stable under normal conditions
10.3	Possibility of hazardous reactions	No data available.
10.4	Conditions to Avoid	Hot surfaces, naked flames or other sources of ignition.
10.5	Incompatable Materials	Strong oxidising agents. eg. inorganic and organic nitrates, phosphorous pentoxide, chromium trioxide etc.
10.6	Hazardous Decomposition Products	Burning will produce toxic fumes of NOx, carbon monoxide and/or carbon dioxide.

Section 11. Toxicological Information

11.1 Information on toxicological effects

Eyes	Both the vapour and liquid will, be irritating to the eyes. Repeated exposure to the vapour can lead to conjunctivitis.
Skin	Can be absorbed through the skin and may cause irritation and dermatitis. Absorbtion can occur from contaminated clothing.
LD50 Skin	1500mg/kg Rabbit
Ingestion	Low order of acute toxicity. Symptoms are the same as for vapour inhalation.
LD50 Oral	2800mg/kg Rat
Inhalation	The vapour is irritating and can cause gastrointestinal effects (eg. anorexia, nausea, vomiting, constipation and diarrhoea). Exposure to more than 20ppm can lead to central nervous system effects, while prolonged exposure to 100ppm can lead to liver and kidney damage.
LD50 Inhalation	Not available
TCLo	Not available
Carcinogenicity	Not considered to be a carcinogen.
Mutagenicity	Not considered to be a mutagen.
Reproductive Effects	Increased rates of spontaneous abortions have been found in female workers.

Section 12. Ecological

12.1	Toxicity	No data available.
	LC50 Algal	Not available
	LC50 Crustacea	Not available
	LC50 Fish	Not available
12.2	Persistence and degradability	No data available.
12.3	Bioaccumulative potential	No data available.
12.4	Mobility in soil	No data available.
12.5	Results of PBT & vPvB assessment	Assessment not required.

12.6 Other adverse effects — None known at present.

Section 13. Disposal Considerations

13.1 Waste treatment methods

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.

Section 14. Transport Information

14.1	**UN Number**	2265
14.2	**Proper Shipping Name**	N,N-Dimethylformamide
14.3	**Transport classes**	
	UN classification	3
	Subsidiary hazard(s)	None
	Transport category	3
	ADR Hazard ID	30
	Tunnel Restriction Code	D/E
14.4	**Packing Group**	III
14.5	**Environment hazards**	See section 12.
14.6	**Special precautions for user**	No special precautions required.
14.7	**Transport in bulk**	Not transported in bulk.

Section 15. Regulatory Information

15.1 Safety, health and environment regulations specific for subtance/mixture.

Classification, Labeling & Packaging of Substances & Mixtures Regulations (1272/2008/CE)

Classification	Flammable liquid, category 3; Acute toxicity, category 4 (dermal); Acute toxicity, category 4 (inhalation); Serious eye damage/irritation, category 2; Reproductive toxicity, category 1B
Signal word	Danger
Hazard Pictograms	
Hazard Statements	H226, H312, H332, H319, H360 Flammable liquid and vapour. Harmful in contact with skin. Harmful if inhaled. Causes serious eye irritation. May damage fertility or the unborn child.
Precautionary Statements	P280, P201, P305+P351+P338, P308+P313 Wear protective gloves / protective clothing / eye protection. Obtain special instructions before use. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do and continue rinsing. IF exposed or concerned: Get medical advice/attention.

15.2 Chemical safety assessment

Assessment not required.

Section 16. Other Information

The information contained in this document only covers the hazards presented by this material, it DOES NOT constitute a workplace risk assessment. See sections 11 for toxicological information and section 12 for ecological information.

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