

**N-Methylpiperazine**

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) &amp; 2015/830

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****1.1 Product identifier**

Product Name N-Methylpiperazine  
Chemical Name N-Methylpiperazine  
Chemical Formula  $C_5H_{12}N_2$   
CAS No. 109-01-3  
EC No. 203-639-5

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

Identified Use(s) Laboratory chemicals, manufacture of substances

**1.3 Details of the supplier of the safety data sheet**

Supplier  
Company Identification Bond Chemicals Ltd  
Address of Supplier Cinnamon House Cinnamon Park  
Crab Lane  
Warrington

Postal code WA20XP  
Telephone: 01925661750  
Fax Not known.  
E-mail info@bondchemicals.co.uk  
Office hours 09:00 - 18:00

**1.4 Emergency telephone number**

Emergency Phone No. 0203 394 9841  
Contact OHES Environmental

**SECTION 2: HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture**

Regulation (EC) No. 1272/2008 (CLP) Flam. Liq. 3 :Flammable liquid and vapour.  
Acute Tox. 4 :Harmful in contact with skin.  
Skin Corr. 1B :Causes severe skin burns and eye damage.  
Acute Tox. 3 :Toxic if inhaled.

**2.2 Label elements**

According to Regulation (EC) No. 1272/2008 (CLP)

Product Name N-Methylpiperazine

Hazard Pictogram(s)



GHS02



GHS06



GHS05

Signal Word(s)

Danger

Hazard Statement(s)

H226: Flammable liquid and vapour.  
H312: Harmful in contact with skin.  
H314: Causes severe skin burns and eye damage.  
H331: Toxic if inhaled.

Precautionary Statement(s)

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.  
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**2.3 Other hazards**

None known.

**2.4 Additional Information**

For full text of H/P Statements see section 16.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.1 Substances**

HAZARDOUS INGREDIENT(S)	CAS No.	EC No. / REACH Registration No.	%W/W	Hazard Statement(s)	Hazard Pictogram(s)
N-Methylpiperazine	109-01-3	203-639-5	<= 100	Flam. Liq. 3 H226 Acute Tox. 4 H312 Skin Corr. 1B H314 Acute Tox. 3 H331	GHS02 GHS06 GHS05 GHS07

**3.2 Mixtures**

Not applicable.

**SECTION 4: FIRST AID MEASURES****4.1 Description of first aid measures**

Inhalation	Specific treatment (see Medical Advice on this label). Immediately call a POISON CENTER/doctor.
Skin Contact	Take off contaminated clothing and wash it before reuse. Specific treatment (see Medical Advice on this label). Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER/doctor.
Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
Ingestion	Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.

**4.2 Most important symptoms and effects, both acute and delayed**

Causes burns.

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

Specific treatment (see Medical Advice on this label). Immediately call a POISON CENTER/doctor. Treat symptomatically.

**SECTION 5: FIREFIGHTING MEASURES****5.1 Extinguishing media**

Suitable Extinguishing media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide

**5.2 Special hazards arising from the substance or mixture**

Flammable liquid and vapour. Combustion or thermal decomposition will evolve toxic and irritant vapours. Carbon oxides, Nitrogen oxides (NOx)

**5.3 Advice for firefighters**

Fire fighters should wear complete protective clothing including self-contained breathing apparatus. If it is safe to do so, containers should be removed from fire area because they are likely to rupture under fire conditions.

**SECTION 6: ACCIDENTAL RELEASE MEASURES****6.1 Personal precautions, protective equipment and emergency procedures**

Provide adequate ventilation. Use non-sparking ventilation systems, approved explosion-proof equipment, and intrinsically safe electrical systems. Wear suitable protective clothing, gloves, and eye/face protection.

**6.2 Environmental precautions**

Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body.

**6.3 Methods and material for containment and cleaning up**

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wetbrushing and place in container for disposal according to local regulations.

**6.4 Reference to other sections**

See Also Section 8, 13.

**SECTION 7: HANDLING AND STORAGE**

**7.1 Precautions for safe handling**

Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. Keep container tightly closed. Use explosion-proof electrical/ventilating/lighting/equipment. Use non-sparking tools. Take action to prevent static discharges. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. Wash hands and exposed skin thoroughly after handling.

**7.2 Conditions for safe storage, including any incompatibilities**

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Hygroscopic moisture sensitive.

Storage temperature

Ambient.

Storage life

Stable under recommended storage conditions.

Incompatible materials

None known.

**7.3 Specific end use(s)**

Laboratory chemicals, manufacture of substances

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1 Control parameters**

8.1.1 Occupational Exposure Limits

No Occupational Exposure Limit assigned.

**8.2 Exposure controls**

8.2.1. Appropriate engineering controls

Use non-sparking ventilation systems, approved explosion-proof equipment, and intrinsically safe electrical systems. Use with ventilation, local exhaust ventilation or breathing protection. A washing facility/water for eye and skin cleaning purposes should be present.

8.2.2. Personal protection equipment



Eye Protection

Wear eye protection with side protection (EN166).



Skin protection

Wear protective clothing and gloves: Impervious gloves (EN 374).



Respiratory protection

A suitable mask with filter type A (EN14387 or EN405) may be appropriate.



Thermal hazards

None known.

8.2.3. Environmental Exposure Controls Avoid release to the environment.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on basic physical and chemical properties**

Appearance

Clear liquid  
Colour : Light yellow

Odour

Not known.

Odour threshold

Not known.

pH

Not known.

Melting point/freezing point

Not known.

Initial boiling point and boiling range

138 °C

Flash Point

39 °C [Closed cup]

Evaporation rate

Not known.

Flammability (solid, gas)

Not known.

Upper/lower flammability or explosive limits

Not known.

Vapour pressure

Not known.

Vapour density

3.46 - (Air = 1.0)

Density (g/ml)

Not known.

Relative density

0.903 g/cm<sup>3</sup> at 25 °C



Solubility(ies)	Solubility (Water) : Not known. Solubility (Other) : Not known.
Partition coefficient: n-octanol/water	Not known.
Auto-ignition temperature	Not known.
Decomposition Temperature (°C)	Not known.
Viscosity	Not known.
Explosive properties	Not known.
Oxidising properties	Not known.
<b>9.2 Other information</b>	None.

**SECTION 10: STABILITY AND REACTIVITY****10.1 Reactivity**

No data available

**10.2 Chemical Stability**

Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions**

No data available

**10.4 Conditions to avoid**

Heat, flames, and sparks.

**10.5 Incompatible materials**

Acids, acid chlorides, acid anhydrides, strong oxidizing agents

**10.6 Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. - carbon oxides, nitrogen oxides (NOx).

**SECTION 11: TOXICOLOGICAL INFORMATION****11.1 Information on toxicological effects**

Acute toxicity - Ingestion	Toxic if swallowed.
Acute toxicity - Skin Contact	Harmful in contact with skin.
Acute toxicity - Inhalation	Toxic if inhaled.
Skin corrosion/irritation	Causes severe skin burns and eye damage.
Serious eye damage/irritation	Causes serious eye damage.
Skin sensitization data	Not classified.
Respiratory sensitization data	Not classified.
Germ cell mutagenicity	Not classified.
Carcinogenicity	Not classified.
Reproductive toxicity	Not classified.
Lactation	Not classified.
STOT - single exposure	Not classified.
STOT - repeated exposure	Not classified.
Aspiration hazard	Not classified.

**11.2 Other information**

Not known.

**SECTION 12: ECOLOGICAL INFORMATION****12.1 Toxicity**

Toxicity - Aquatic invertebrates	No data available
Toxicity - Fish	No data available.
Toxicity - Algae	No data available
Toxicity - Sediment Compartment	Not classified.
Toxicity - Terrestrial Compartment	Not classified.

**12.2 Persistence and degradability**

Not known.

**12.3 Bioaccumulative potential**

Not known.

**12.4 Mobility in soil**

Not known.

**12.5 Results of PBT and vPvB assessment**

Not known.

**12.6 Other adverse effects**

Not known.

**SECTION 13: DISPOSAL CONSIDERATIONS****13.1 Waste treatment methods**

Dispose of contents in accordance with local, state or national legislation. Recycle only completely emptied packaging. Containers must not be punctured or destroyed by burning, even when empty. Do not allow to enter drains, sewers or watercourses. Do NOT landfill. Normal disposal is via incineration operated by an accredited disposal contractor. Send to a licensed recycler, reclaimer or incinerator. Dispose of this material and its container to hazardous or special waste collection point. Dispose at suitable refuse site.

**13.2 Additional Information**

Disposal should be in accordance with local, state, or national legislation.

**SECTION 14: TRANSPORT INFORMATION****14.1 UN number**

UN No. 2734

**14.2 UN proper shipping name**

UN proper shipping name AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S.

**14.3 Transport hazard class(es)**

ADR/RID

ADR/RID Class 8  
ADR Classification Code CF1  
Special Provisions 274  
Limited Quantities 1 L  
Excepted Quantities E2  
Emergency Action Code •2W  
Mixed Packing Instructions for Packages P001 IBC02  
Special Packing Provisions for Packages  
Mixed Packing Instructions for Packages MP15  
Packing Instructions for Portable Tanks T11  
Special Provisions for Portable Tanks TP2 TP27  
Tank Code for Tanks L4BN  
Special Provisions for Tanks

Vehicle for Tank Carriage FL  
ADR Transport Category 2  
Tunnel Restriction Code D/E

Special Provisions for Carriage - Packages

Special Provisions for Carriage - Bulk

Special Provisions for Carriage - Loading, Unloading and Handling

Special Provisions for Carriage - Operation S2

ADR HIN 83

IMDG

IMDG Class 8  
Special Provisions 274  
Limited Quantities 1 L  
Excepted Quantities E2  
Mixed Packing Instructions for Packages P001 IBC02  
Special Packing Provisions for Packages

Packing Instructions for Portable Tanks T11  
Special Provisions for Portable Tanks TP2 TP27

IMDG EMS F-E, S-C  
Stowage and Handling Category A  
Segregation SGG18 SG35

Marine Pollutant

ICAO/IATA

IATA Proper Shipping Name AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S.

Excepted Quantities E2

Passenger and Cargo Aircraft Limited Y840

Quantities Packing Instructions

Passenger and Cargo Aircraft Limited 0.5 L

Quantities Max net Qty

Passenger and Cargo Aircraft Packing Instructions 851

Passenger and Cargo Aircraft Max net Qty 1 L



Cargo Aircraft Packing Instructions 855  
Cargo Aircraft Max net Qty 30 L  
Special Provisions  
Emergency Response Guidebook (ERG) 8F  
Code  
Labels  
Labels

8 +3

**14.4 Packing group**

Packing group II

**14.5 Environmental hazards**

Environmental hazards Not classified as a Marine Pollutant.

**14.6 Special precautions for user**

Special precautions for user Not known.

**14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

No information available

**SECTION 15: REGULATORY INFORMATION****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

European Regulations - Authorisations and/or Restrictions On Use

Candidate List of Substances of Very Not listed

High Concern for Authorisation

REACH: ANNEX XIV list of substances Not listed  
subject to authorisationREACH: Annex XVII Restrictions on the N-Methylpiperazine (109-01-3)  
manufacture, placing on the market and  
use of certain dangerous substances,  
mixtures and articles

Community Rolling Action Plan (CoRAP) Not listed

Regulation (EC) N° 850/2004 of the Not listed

European Parliament and of the Council  
on persistent organic pollutants

Regulation (EC) N° 1005/2009 on Not listed

substances that deplete the ozone layer

Regulation (EU) N° 649/2012 of the Not listed

European Parliament and of the Council  
concerning the export and import of  
hazardous chemicals**National regulations**

Other Not known.

**15.2 Chemical Safety Assessment**

A REACH chemical safety assessment has not been carried out.

**SECTION 16: OTHER INFORMATION**

The following sections contain revisions or new statements:

**LEGEND**

Hazard Pictogram(s)



GHS02



GHS06



GHS05

GHS07: GHS: Exclamation mark

Hazard classification

Flam. Liq. 3 : Flammable liquid, Category 3

Acute Tox. 4 : Acute toxicity, Category 4

Skin Corr. 1B : Skin corrosion/irritation, Category 1B

Acute Tox. 3 : Acute toxicity, Category 3



Hazard Statement(s)	H226: Flammable liquid and vapour. H312: Harmful in contact with skin. H314: Causes severe skin burns and eye damage. H331: Toxic if inhaled.
Precautionary Statement(s)	P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P280: Wear protective gloves/protective clothing/eye protection/face protection. P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Acronyms	ADN : European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways ADR : European Agreement concerning the International Carriage of Dangerous Goods by Road CAS : Chemical Abstracts Service CLP : Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures DNEL : Derived No Effect Level EC : European Community EINECS : European Inventory of Existing Commercial Chemical Substances IATA : International Air Transport Association IBC : Intermediate Bulk Container ICAO : International Civil Aviation Organization IMDG : International Maritime Dangerous Goods LTEL : Long term exposure limit PBT : Persistent, Bioaccumulative and Toxic PNEC : Predicted No Effect Concentration REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals RID : Regulations concerning the International Carriage of Dangerous Goods by Rail STEL : Short term exposure limit STOT : Specific Target Organ Toxicity UN : United Nations vPvB : very Persistent and very Bioaccumulative
Key literature references and sources for data used to compile the SDS	Regulation (EC) No. 1272/2008 (CLP)
Disclaimers	Information contained in this publication or as otherwise supplied to Users is believed to be accurate and is given in good faith, but it is for the Users to satisfy themselves of the suitability of the product for their own particular purpose. Bond Chemicals Ltd gives no warranty as to the fitness of the product for any particular purpose and any implied warranty or condition (statutory or otherwise) is excluded except to the extent that exclusion is prevented by law. Bond Chemicals Ltd accepts no liability for loss or damage (other than that arising from death or personal injury caused by defective product, if proved), resulting from reliance on this information. Freedom under Patents, Copyright and Designs cannot be assumed.