



SAFETY DATA SHEET

Prepared in accordance with Annex II of the REACH regulation EC 1907/2006, Regulation (EC) 1272/2008 and Regulation (EC) 453/2010

PETOL PM 410-4N

Revision: 0 Last up date: Issued date: January 10, 2011 page 1/9

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Trade name	PETOL 410-4N
Chemical name	p-Nonylphenol, formaldehyde, diethanolamine propoxylated A polypropoxylated p-nonylphenol-formaldehyde-diethanolamine Mannich base
EC no.	614-668-1
CAS no.	68610-97-9
Registration number	Registration deadline May 31, 2013
Chemical characterization	UVCB substance

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

Petol PM 410-4N is a Mannich polyol used in polyol blends for rigid foams blow with water for pipes insulation and for spay rigid foams.

Main applications: rigid polyurethane foams, semi rigid polyurethane foams, cross linker agent.

Uses advise against: There are no uses advised against.

1.3. Details of the supplier of the safety data sheet

Name	S.C. OLTCHIM S.A
Address	1 Uzinei Street, 240050 Ramnicu Valcea, Romania
Phone N°	+40 250 701 200
FAX N°	+40 250 735 030
E-mail of competent person responsible for SDS in the MS or in the EU:	tehnich@oltchim.ro

1.4. Emergency telephone

European Emergency N°:	112
Emergency telephone at the company:	+40/250/738141
Available outside office hours:	24h/day/365days

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2. HAZARDS IDENTIFICATION

2.1. Classification of the substance

2.1.1. Classification according to Regulation (EC) 1272/2008

p-Nonylphenol, formaldehyde, diethanolamine, propoxylated (Petol PM 410-4N): Substance is not classified according to Regulation (EC) 1272/2008.

2.1.2 Classification according to Directive 67/548/EEC

p-Nonylphenol, formaldehyde, diethanolamine, propoxylated (Petol PM 410-4N): Substance is not classified according to Directive 67/548/EEC.

2.2. Label elements

2.2.1. Labeling according to Regulation (EC) 1272/2008

Signal word: No signal word.

2.2.2. Labeling according to Directive 67/548/EEC

No label according to D 67/548/EEC.

2.3 Other hazard

The substance does not meet the criteria for PBT or vPvB substance.

No other hazards identified.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	PBT/vPvB	CAS no/EC No/REACH No.	Classification according to Reg (EC) No. 1272/2008)	Classification according to D 67/548/EC	Concentration (%)
Petol 410-4N	No/No	68 909-26-2/ 614-668-1	no	no	Up to 100

4. FIRST - AID MEASURES

4.1 Description of first aid measures

General Advice: IF exposed or if you feel unwell: Call a Poison Center or doctor/physician. Show this safety data sheet to the doctor in attendance.

If inhaled: Remove affected person to fresh air.



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In case of skin contact: Wash skin with soap and plenty of water immediately at least 15 minutes, until no evidence of chemical remains.

In case of eye contact: Wash eyes immediately with large amounts of lukewarm water or normal saline, occasionally lifting upper and lower lids, until no evidence of chemical remains at least 15 minutes. Get medical attention immediately if pain, blinking, tears or redness persist.

Ingestion: This product has a low to very low oral toxicity. Swallowing small amount of this product is not likely to cause injury. If a polyol is swallowed obtain emergency medical attention.

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

By skin contact: Skin contact with the product is not like to result in a significant irritation.

By eye contact: Contact with eyes cause slight temporary irritation.

By inhalation: Due to low vapor pressure at room temperature, Petol polyols alone are not likely to be inhaled. In this case symptoms may include cough and sometimes slight dizziness. The product is not sensitising.

4.3. Indication of immediate medical attention and special treatment needed

No specific antidote. Treat symptomatically and supportively.

5. FIRE - FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Dry chemical, carbon dioxide, dry chemical, foam and water spray.

Unsuitable extinguishing media: None

5.2 Special hazards arising from the substance or mixture

Exposure hazards: Slight fire hazard when exposed to heat or flame. Heat from fire can generate flammable vapor. When mixed with air and exposed to ignition source, vapor can burn in open or explode if confined. The vapor is heavier than air and will accumulate in low area.

5.3 Advice for firefighters

Protection of the fire-fighters: Firefighters should be equipped with protective equipment and self-contained breathing apparatus to protect against potentially toxic and irritating fumes.

Other information: Use cold water spray to cool fire-exposed containers to minimize the risk of rupture.



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6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: No special protection. Ventilate area of leak or spill. Wear appropriate personal protective equipment. Spills may cause very slippery surfaces. Spread granular cover.

6.2 Environmental precautions

Environmental precautions: Prevent contamination of ground and surface water by isolating the hazard area. Contain and recover liquid when possible. Keep closed containers and dispose according to all applicable federal, state or local environment regulations.

6.3 Methods and materials for containment and cleaning up

Methods of cleaning up: Absorb spills with dry sand, earth or similar absorbent material then collect into drums for later disposal. Incinerate or bury in a licensed facility according to national environmental regulations.

For small spills: Minor spills on concrete or other hard surfaces can be wiped or mopped up. Also small spills can be absorbed with dry sand, earth, vermiculite then collect into drums, small containers for later disposal. Dispose according to all applicable federal, state or local environment regulations.

For large spills: Industrial spill or release are accidental and are generally contained. For large spills, dike and pump into suitable containers for disposal. The residual spilled material may be absorbed with dry absorbent material (sand, earth, vermiculite). Flush area with plenty of water. Waste water will be treated in biological treatment plant. Dispose according to the governmental requirements.

Special precautions: Do not use combustible materials, such as saw dust. Do not flush to sewer! Slippery walking! Spread granular cover!

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Handling: No special measures required. It is not considered a hazardous material in most industrial operations. Sources of ignition such as smoking and open flames are prohibited where this compound is handled.



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Advice on general occupational hygiene: Avoid inhalation or ingestion and contact with skin and eyes. General occupational hygiene measures are required to ensure safe handling of the substance. These measures involve good personal and housekeeping practices (i.e. regular cleaning with suitable cleaning devices), no drinking, eating and smoking at the workplace. Shower and change clothes at end of work shift. Do not wear contaminated clothing at home.

7.2. Conditions for safe storage, including any incompatibilities

Storage: Store in tightly closed containers, in dry and well ventilated areas, between 20-30°C. Product will absorb water if the product container is not secured properly. This may affect reactivity, appearance and performance. Therefore, keep drums tightly closed to prevent contamination. Use dry nitrogen or low dew point air for tank padding. Avoid contact with isocyanates.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure Limit (OEL), 8 h TWA: Not established
Short-term exposure limit (STEL), 15 min: Not established

8.2. Exposure control

Engineering controls: No special ventilation is recommended under anticipated conditions of normal use beyond that needed for normal comfort control. Good general ventilation should be sufficient for most conditions.

Personal protective equipment

Respiratory protection: No special respirator protection is recommended under anticipated conditions of normal use with adequate ventilation. Where excessive vapor or mist may result from use, use respiratory protection equipment recommended or approved by appropriate local, state or international agency.

Hand protection: Wear chemical protective gloves.

Eye / Face protection: Chemical splash goggles and/or face shield must be worn when possibility exist for eye contact due to splashing or spraying liquid, airborne particles or vapor. Contact lenses



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must not be worn. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Skin protection: Not normally considered a skin hazard. Wear impervious protective clothing including boots, apron, if needed. Wash hands and other exposed area with soap and water before eating, drinking, smoking and when leaving work.

Other precautions: Maintain shower, eye wash fountain and quick-drench facilities in work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

General information

Appearance	yellow-brown clear viscous liquid
Odour	Odourless

Important health, safety and environmental information

pH	N/A
Boiling point	N/A
Flash point, min	200 ⁰ C
Flammability	not flammable
Explosive properties	N/A
Oxidizing properties	No oxidizing properties
Vapour pressure, at 20 °C	N/A
Partition coefficient (log K _{ow})	N/A
Vapour relative density (air=1)	N/A
Dynamic viscosity, at 25 ⁰ C	8000-15000 cP
Density, 25 ⁰ C	1.01-1.10, g/cm ³
Solubility in water	Slight soluble

Other informations

Melting point	N/A
Autoignition temperature	N/A

10. STABILITY AND REACTIVITY

10.1. Reactivity: Stable.

10.2 Chemical stability: Stable under normal temperature and pressure, but hygroscopic.

10.4 Conditions to avoid: Moisture, ignition sources and incompatibles.



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10.5 Incompatible materials: Isocyanates, strong acids, alkalis and oxidizers.

10.6. Hazardous decomposition products: Carbon monoxide, carbon dioxide and aliphatic fragments.

11. TOXICOLOGICAL INFORMATION

	Conclusion
Acute toxicity	The product presents a low to very low in acute oral toxicity. In conformity with literature data the most LD50 values range from 2 grams to greater than 10 grams per kilogram of weight for laboratory animals
Irritation/Corrosion	Eye: May cause slight irritation, but not corneal damage. Skin: Contact with the product is not like to result in a significant irritation. Inhalation: At room temperature, exposure to vapors is minimal due to low volatility. May cause slight respiratory irritation.
Sensitisation	This product is not a sensitizer.
Repeated dose toxicity	Not available data. Repeated or prolonged is not known to aggravate medical condition.
Mutagenity	Genetic toxicity: negative
Carcinogenity	Product is of no concern with regard to carcinogenicity.
Toxicity for reproduction	Product is not toxic for reproduction.

12. ECOLOGICAL INFORMATION

Ecotoxicity

This product is not expected to present a hazard to aquatic and terrestrial flora and fauna.

Mobility: The product may enter the environment from industrial waste treatment plant discharges or spills. Low mobility in the environment due to its slight water solubility. No appreciable volatilization from water to air is expected.

Persistence and degradability: Material is expected to degrade only slowly in the environment. Recent data indicates that product will biodegrade 75% after 24 days in biological treatment plant with accommodation of activated sludge. Despite the very slow biodegradability rate the product should not present an environmental hazard in surface water / soil.



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Bioaccumulative potential: It is not expected to have a bioaccumulative potential.

Other adverse effects: This material is expected to be non-hazardous to aquatic species.

13. DISPOSAL CONSIDERATIONS

This section contains generic advice and guidance.

13.1 Waste treatment methods

13.1.1 Product

Methods of disposal: The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spill material and runoff and contact with soil, waterways, drains and sewers.

13.1.2. Packaging

Methods of disposal: The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Do not heat or cut container with electric or gas torch.

14. TRANSPORT INFORMATION

ADR: Petol PM 410-4N is not classified under ADR regulations.

RID: Petol PM 410-4N is not classified under RID regulations.

Maritime transport IMDG: Petol PM 410-4N is not classified under IMDG regulations.

Air transport ICAO/IATA: Petol PM 410-4N is not classified under IATA regulations.



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15. REGULATORY INFORMATION

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Substances of very high concern (CMR): Petol PM 410-4N is not listed on the annex.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Petol PM 410-4N is not listed on the annex.

Other EU regulations: Is not a SEVESO substance, not ozone depleting substance and not a persistent organic pollutant.

16. OTHER INFORMATION

Data are based on our latest knowledge but do not constitute a guarantee for any specific product features and do not establish a legally valid contractual relationship.

16.1. Explanations for possible abbreviations mentioned in above section

PBT: Persistent, bioaccumulative and toxic.

vPvB: Very persistent and very bioaccumulative.

ADR: European **Agreement** concerning the International Carriage of **Dangerous** Goods by **Road**

RID: **International** Carriage of **Dangerous** Goods by **Road**

IMDG: International Maritime Dangerous Goods Code

ICAO/IATA: International Civil Aviation Organization/ International Air Transport Association

16.2. Revision: Revision 0

Disclaimer:

Oltchim provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. Furthermore, this safety data sheet is made up based on the legal requirements as set by EC 1907/2006 (REACH), EC 1272/2008, EC 453/2010. Further information received following the time scale as foreseen by REACH and the guidance policies as described in the REACH Implementation Programs will be added when it becomes available.



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