



According to Resolution 801/15 of the Superintendency of Occupational Risks (SRT) and Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

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

### 1.1 Product identifier

Trade name: **PETN**

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

No further relevant information available.

#### Application of the substance / the mixture:

Explosives for commercial use.  
Open-air and underground mining  
Quarries  
Civil works and demolitions

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

#### Manufacturer/Supplier:

E-Mail: apa.comercial@austinpowder.com

Information Department:

Austin Powder Argentina S.A. - Luis Maggi 770 - Rafaela (Santa Fe) - Phone: + 54 3492 434851 - Fax: + 54 3492 433905 88

#### 1.4 Emergency telephone number:

+54 3492 424775 – 0800 666 2282 (CIPET)

## SECTION 2: Hazards identification

### 2.1 Classification of the mixture

#### Classification according to GHS (Rev.5):

Hazard class	Code	Hazard Category
Expl. 1.1	H201	Division 1.1

#### Human and environmental-specific hazards:

Substances and goods that present a risk of mass explosion.

### 2.2 Label elements

The product must be labelled according to the established regulations listed in the "Globally Harmonized System of Classification and Labelling of Chemical Products", according to resolution 801/15 of the Labour Risks Superintendency (SRT).

#### Hazard pictograms:



GHS01

**Signal word:** Danger

#### Hazard statements:

H201 Explosive; mass explosion hazard.

#### Precautionary statements:

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P230 Keep humidified with greater than 25% humidity  
P234 Keep only in the original packaging.  
P240 Container and receiving equipment earthing and equipotential link.



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P250 Do not subject to grinding/shock/friction.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.

#### 2.3 Other hazards

Non- applicable

### SECTION 3: Hazards identification

#### 3.1 Substances

Chemical name: Pentaerythritoltetranitrate  
Synonyms: PENTA, penthrite, PETN  
Chemical formula:  $C_5H_8N_4O_{12}$   
Molecular weight: 316.1 g/mol  
CAS number: 78-11-5  
Concentration: > 35%  
Minimum % water: 25%

#### 3.2 Chemical characterization: Mixtures

Non- applicable

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

##### General information:

##### After inhalation:

Take the person to open air and keep them at rest in a comfortable position for breathing. Seek medical advice immediately.

##### After skin contact:

Wash with plenty of water and soap for at least 15 minutes. Take off contaminated clothes and footwear. Wash contaminated clothes before using them again. Seek medical advice.

##### After eye contact:

Wash with plenty of water for 15 minutes, maintaining the eyelids open. Seek medical advice.

##### After swallowing/ingestion:

Wash mouth with water. Never offer anything to eat to an unconscious person or if the person has seizures. If the person is conscious, do not induce vomiting. Seek medical care immediately

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

The substance can affect the cardiovascular system and lower blood pressure. May produce vertigo, headache.

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

Treat symptomatically

### SECTION 5: Firefighting measures

DO NOT fight fires involving Explosives. There is an extreme risk that explosives involved in a fire may detonate, especially if confined. Evacuate the area in all directions for one (1) kilometer or more away for cover if any amount of explosives is involved in a fire. Evacuation is recommended if the initial (incipient) fire, not involving explosives, becomes intense.

#### 5.1 Extinguishing media

##### Suitable extinguishing agents:

Suitable extinguishing media: do not extinguish fires. Evacuate personnel immediately. Let the fire extinguish by itself.

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

Can explode when exposed to intense heating, fire or shock and/or severe friction (or electrostatic discharge when in dry condition). Do not breathe toxic gases from combustion.

#### 5.3 Advice for firefighters

##### Protective equipment:



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Do not extinguish fires. Use positive pressure self-contained breathing equipment. Firefighter equipment will provide only limited protection.

**Additional information:**

Tire or vehicle fire: use plenty of water and flood the fire. If there is no water available, use CO<sub>2</sub>, dry chemical powder or mud. If the fire is on the charge, do not extinguish it. Evacuate immediately.

### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Evacuate the area and isolate at least 500 meters. Use breathing apparatus in the event of exposure to dusts/fumes/aerosols. Ventilate closed spaces before entering. Avoid all sources of heat, flames, electrostatic discharge. Do not smoke. Avoid all kinds of shock and friction.

#### 6.2 Environmental precautions

Do not spill in culverts, gutters or drainages.

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

Pick up and place spilled material in suitable cardboard or plastic containers for immediate disposal. Do not smoke or initiate fire near the spill area. All the equipment used during the handling of the product must be electrically grounded. Use adequate personal protection equipment

#### 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Technical measures: Use proper protective equipment.

Precautions: Protect containers from physical damage.

Recommendations on safe handling: Avoid contact with incompatible materials.

Take steps to prevent a build-up of electrostatic discharge. Keep away from flames, hot surfaces and sources of ignition. It is prohibited to eat, drink or smoke in the work areas

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

##### Storage

##### Requirements to be met by storerooms and receptacles:

Store in closed original containers until use, at room temperature and in a dry and well-ventilated place. Keep away from heat, open flames and ignition sources.

##### Information about storage in one common storage facility:

Technical measures: the substance should be kept wet. Fire-proof. Store away from incompatible materials and substances.

Storage conditions: Do not expose to sunlight.

Incompatible products: Strong alkali or acids.

Packaging materials: Cardboard boxes and polyethylene bags.

##### Further information about storage conditions:

No data available

#### 7.3 Specific end use(s)

No further relevant information available.

### SECTION 8: Exposure controls/personal protection

#### Additional information about design of technical systems:

#### 8.1 Control parameters

##### Components with limit values that require monitoring at the workplace:

No national control limit values are available. Exposition should be evaluated according to applicable local rules.



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### Additional information:

#### 8.2 Exposure controls

##### Personal protective equipment:

##### General protective and hygienic measures:

Reduce the number of individuals at the work area to the minimum. Authorized personnel only

##### Breathing equipment:

Not required under normal conditions

##### Protection of hands:

Not required, except to avoid injuries by abrasion and to reduce contact with the skin.

##### Material of gloves:

Neoprene, natural rubber

##### Eye protection:

Use security glasses.

##### Body protection:

Protective work clothing.

## SECTION 9: Physical and chemical properties

### · 9.1 Information on basic physical and chemical properties

#### · General Information

##### · Appearance:

Form:	Solid
Color:	Crystal white
Odor:	Odourless

· pH-value: Not available.

#### · Change in condition

Boiling point/Boiling range: 140°C

· Flash point: 198°C

· Flammability (solid, gaseous): Not available

· Ignition temperature: Not available

Decomposition temperature: 190°C

· Deflagration point: 202°C

· Self igniting: Product is not self-igniting.

· Danger of explosion: Danger of explosion due to impact, friction, fire and other sources of ignition. The heat can cause an explosion.

· Vapor pressure: Not applicable.

· Density at 20 °C: 0.85 – 1.00 g/cm<sup>3</sup>

· Solubility in / Miscibility with Water:

Insoluble

#### · Solvent content:

#### · Organic solvents:

Solids content:

· 9.2 Other information: No further relevant information available.



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### SECTION 10: Stability and reactivity

#### 10.1 Reactivity

Avoid contact with oxidizing agents and strong acids.

#### 10.2 Chemical stability

Stable under normal conditions.

#### 10.3 Possibility of hazardous reactions

Hazardous polymerization will not occur

#### 10.4 Conditions to be avoided

Avoid fire, shock, friction or electrical discharge.

#### 10.5 Incompatible materials

Alkalis, strong acids.

#### 10.6 Hazardous decomposition products

Nitrogen oxides and carbon oxides in case of fire

### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

**Acute toxicity:** No data available

**Primary irritant effect:**

**on the skin:**

Non-irritating

**on the eye:**

Non-irritating

**Sensitization:**

No sensitizing effects known.

**Additional toxicological information:**

No data available. Information about possible routes of exposure: The substance can be absorbed by inhalation and ingestion.

**Symptoms related to the physical, chemical and toxicological characteristics:**

The substance can affect the cardiovascular system and lower blood pressure. May produce vertigo, headache

### SECTION 12: Ecological information

#### 12.1 Toxicity

**Aquatic toxicity:**

Toxicity for other daphnias: CE50 (Daphnia magna) 48 hs: 49 mg/L.

#### 12.2 Persistence and degradability

Not available.

#### 12.3 Bio-accumulative potential

Not available.

#### 12.4 Mobility in soil

Not available.

**Ecotoxic effects:**

**Type of test Effective concentration Method Assessment:**

**Additional ecological information:**

Not available

**General notes:**

#### 12.5 Other adverse effects



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No further relevant information available.

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods


##### Recommendation

Dispose material according to local or state regulations, under the direct supervision of qualified personnel. Call Austin Powder for recommendations and assistance. This product can be hazardous under certain conditions and it must be picked, tagged and disposed immediately.

##### Uncleaned packaging:

Recommendations: Incineration.

### SECTION 14: Transport information

· 14.1 UN-Number · ADR, IMDG , IATA	UN 0150	
· 14.2 UN proper shipping name · ADR · MERCOSUR · IMDG: · IATA	PENTAERYTHRITOL TETRANITRATE, WETTED PENTAERYTHRITOL TETRANITRATE, WETTED PENTAERYTHRITOL TETRANITRATE, WETTED Prohibited	
· 14.3 Transport hazard class(es) · ADR, IMDG	  · Class · Label	1.1 D 1
· IATA · Class	1.1 D (prohibited)	
· 14.4 Packing group · ADR, IMDG	Non-applicable	
· 14.5 Environmental hazards · Marine pollutant:	No	
· 14.6 Special precautions for user · EMS Number: · Danger code (Kemler)	Warning: Explosive substances and articles. F-B, S-X Non-applicable	
· 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not listed.	
· Transport/Additional information:		
· ADR · Tunnel restriction code	B1000C	
· IATA · Remarks:	Air transport ICAO-IATA/DGR Prohibited.	



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### SECTION 15: Regulatory information

#### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

##### National regulations

Law 19587 Regulatory decree 351/79 and Decree 295/2003

Law 20429 and decree 302/83

Resolution 801/15 of the Superintendency of Occupational Risks (SRT)

#### 15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

Liability about information is not warranted although information is given to our best knowledge

#### Relevant phrases:

H201 Explosive; mass explosion hazard

#### Recommended restriction of use

Handling of explosives is permitted only to persons with the appropriate permission.

#### Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

CAS: Chemical Abstracts Service (division of the American Chemical Society)

Expl. 1.1: Explosives, Division 1.1

Ox. Sol. 1: Oxidizing Solids, Hazard Category 1

Ox. Sol. 2: Oxidizing Solids, Hazard Category 2

Pyr. Sol. 1: Pyrophoric Solids, Hazard Category 1

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

Asp. Tox. 1: Aspiration hazard, Hazard Category 1