



**Industrial Química del Nalón, S.A.**

**NalónChem**

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REVISION: 0.

# MATERIAL SAFETY DATA SHEET

(1907/2006/EC, Article 31)

## COAL TAR PITCH

### 1.- IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

#### 1.1.- Identification of the substance

Trade name: Coal Tar Pitch

Molecular formula: N/A

#### 1.2.- Use of the substance/preparation

Binding and impregnating agent for carbon manufacturing in the aluminium and graphite industries.

#### 1.3.- Company/undertaking identification

Industrial Química del Nalón, S.A.

Avda. Galicia 31

E-33005 Oviedo

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Tel: +34 98.598.26.00

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(See item 16.2 –Contact–)

#### 1.4.- Emergency information

Tel: +34 98.598.26.61

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## **2.- HAZARDS IDENTIFICATION**

### **2.1.- Hazard designation:**



T: Toxic (Carc. Cat. 2)

### **2.2.- Information concerning particular hazards for human and environment**

R45: May cause cancer

R46: May cause heritable genetic damage

R60: May impair fertility

R61: May cause harm to the unborn child

R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

May cause thermal burns if molten, because of the high temperature.

*The classification is according to the latest editions of the EC-lists, and extended by company and literature data.*

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## **3.- COMPOSITION / INFORMATION ON INGREDIENTS**

### **3.1.- Chemical Description**

The main product from the distillation of high temperature coal tar. A black solid with an approximate softening point from 30 °C to 180 °C. Composed primarily of a complex mixture of mainly three or more condensed-ring aromatic hydrocarbons.

### **3.2.- IUPAC Name**

N/A

### **3.3.- CAS Number**

65996-93-2 Pitch, coal-tar, high temperature

### **3.4.- Identification Number (s)**

EINECS Number: 266-028-2

Index Number: 648-055-00-5



### 3.5.- Dangerous Components

CAS: 65996-93-2 EINECS: 266-028-2	Pitch, coal tar, high-temp. PBT; Carc. Cat 2; T; R45	ca. 100%
CAS: 91-20-3 EINECS: 202-049-5	Naphthalene, pure Carc. Cat.3 (R40), Xn (R22), N (R50/53)	< 0.05%
CAS: 56-55-3 EINECS: 200-280-6	Benzo[a]anthracene T-Carc. Cat. 2 (R45), N (R50/53)	< 2.0%
CAS: 218-01-9 EINECS: 205-923-4	Chrysene T - Carc. Cat. 2 (R45) - Muta. Cat. 3 (R68), N (R50/53)	< 2.0%
CAS: 205-99-2 EINECS: 205-911-9	Benzo[b]fluoranthene, benz(e)acephenanthrylene T-Carc. Cat. 2 (R45), N (R50/53)	< 2.0%
CAS: 207-08-9 EINECS: 205-916-6	Benzo[k]fluoranthene T-Carc. Cat. 2 (R45), N (R50/53)	< 2.0%
CAS: 205-82-3 EINECS: 205-910-3	Benzo[j]fluoranthene T-Carc. Cat. 2 (R45), N (R50/53)	< 2.0%
CAS: 50-32-8 EINECS: 200-028-5	Benzo[a]pyrene T - Carc. Cat. 2 (R45) - Muta. Cat. 2 (R46) - Repr. Cat. 2 (R60, R61), R43, N (R50/53)	< 2.0%
CAS: 192-97-2 EINECS: 205-892-7	Benzo[e]pyrene T-Carc. Cat. 2 (R45), N (R50/53)	< 2.0%
CAS: 92-52-4 EINECS: 202-163-5	Biphenyl Xi (R36/37/38), N (R50/53)	< 2.0%
CAS: 53-70-3 EINECS: 200-181-8	Dibenz[a,h]anthracene T-Carc. Cat. 2 (R45), N (R50/53)	< 0.5%

### 3.6 Additional information:

Pitch, coal tar, high temp. (CAS 65996-93-2) was listed on 13 January 2010 as authorisation candidate according to Art. 59(1,10) of the REACH Regulation No. 1907/2006 after classification as PBT substance. The legality of the PBT- classification is challenged by industry and currently reassessed by the General Court, Luxembourg (Case T-93/10).



#### 4.- FIRST - AID MEASURES

**IN ALL CASES, SEEK MEDICAL ATTENTION IMMEDIATELY.**

**REMOVE ANY CONTAMINATED CLOTHING (EXCEPT WHEN IN CONTACT WITH MOLTEN PRODUCT).**

**REMOVE SUBJECT FROM ANY EXPOSURE SOURCE.**

**After inhalation:** Remove subject from exposure area to fresh air. Administer oxygen or artificial respiration in severe cases.

**After skin contact:** Remove all contaminated clothing (except when in contact with molten product). Flush skin immediately with large amounts of cold water. If solid, wash exposed area with non abrasive soap and water.

**After eye contact:** Flush open eyes immediately with plenty of water for at least 15 minutes. Then consult doctor.

**After ingestion:** If conscious, first try to induce vomiting and then give copious quantities of water. Do not give anything by mouth to an unconscious person. Get medical help immediately.

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#### 5.- FIRE - FIGHTING MEASURES

##### 5.1.- Extinguishing media:

- **Suitable:** Dry chemicals, carbon dioxide, sand, foam, steam or water fog.
- **Not Suitable:** Water jet (may spread fire).

##### 5.2.- Special hazards caused by the material, its products of combustion or resulting gases

Incomplete combustion in a fire may result in a release of toxic carbon monoxide (CO), under certain fire conditions, traces of other toxic gases cannot be excluded such as Nitrogen oxides (NO<sub>x</sub>) or Sulphur dioxide (SO<sub>2</sub>).

Coal Tar Pitch when heated generates vapours that may ignite.

##### 5.3.- Protective equipment

Full-body protective clothing, including breathing apparatus.

Do not inhale combustion gases.

##### 5.4.- Additional information

Cool storage containers with water spray jet.

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## 6.- ACCIDENTAL RELEASE MEASURES

### 6.1.- Personal Precautions:

Wear full-body, industrial-type work clothing, including chemical resistant gloves, boots and goggles (face shields if molten).

Use breathing protections against the effects of fumes/dust/aerosol.

If liquid, avoid breathing vapours or contact with skin and eyes. Ventilate the area if the spill occurs indoors.

Keep away from ignition sources.

### 6.2.- Environmental Precautions:

Keep away from drains, surface- and ground-water and soil.

Avoid any dusting.

Inform respective authorities in case of seepage into water course/sewage system.

### 6.3.- Cleaning up methods:

If liquid, contain with sand, earth or any other inert material and allow to solidify. To remove solid pitch, use mechanical means. Containers should be sealed and labelled.

Dispose of contaminated material and waste according to item 13.1.

Ensure adequate ventilation.

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## 7.- HANDLING AND STORAGE

### 7.1.- Handling:

Practice special caution when handling this product. All work must be organized and carried out according to regulations regarding safe handling of carcinogenic substances and products.

When handling liquid pitch, avoid any foaming by using only dry containers. Use nitrogen and avoid fumes or vapours generation when working with scrubbing systems. Splashes to the skin should be prevented since will cause dermal thermal burns.

Handle solid pitch in such a way to minimize dust generation.

Ensure adequate ventilation and guard against ignition sources and static electricity.

Use chemical resistant gloves (heat resistant gloves if molten) and safety glasses.

Keep self-contained breathing equipment ready.



### 7.2.- Storage:

Keep carcinogenic substances in suitable, closed and labelled containers. Storerooms are to be provided with warning signs for toxic substances.

Liquid pitch should be stored between 200/220 °C, keeping away from open fire and ignition sources, with adequate ventilation and guarding it against static electricity.

Bulk solid pitch can be stored at room temperature in covered warehouses.

Keep away from strong oxidizing substances.

Store according to local and/or national regulations.

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## 8.- EXPOSURE CONTROLS / PERSONAL PROTECTION

### TRAIN WORKERS AND USERS IN SAFETY MEASURES

#### 8.1.- Additional information about design of technical facilities

General or local exhaust ventilation may be necessary to prevent a build up of vapours (see section 7)

#### 8.2.- Components with limit values that require monitoring at the workplace

Coal Tar Pitch: TLV is 0.2 mg/m<sup>3</sup> (OSHA PEL / ACGIH)

#### 8.3.- General protective and hygienic measures

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks, at the end of the work and toilet visits.

Avoid contact with eyes and skin.

Do not drink, eat, smoke or sniff while working.

Shower or take a bath at the end of work. Steam baths are recommended.

Take off immediately all contaminated clothing.

Store protective clothing separately.

#### 8.4.- Respiratory protection

In case of brief exposure or low pollution use breathing filter apparatus (filter ABEK). In case of intensive or longer exposure (specially if molten) use (self-contained) breathing equipment.

#### 8.5.- Protection of hands

Chemical resistant gloves (heat resistant gloves if molten) with CE- labelling of category III (EN 374).

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

#### 8.6.- Material of gloves

Butyl rubber, BR

Nitrile rubber, NBR

Neoprene



#### **8.7.- Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Discard gloves as soon as any signs of degradation are noticed (e.g. swelling).

#### **8.8.- Eye protection**

Operators should wear chemical-proof goggles (face shields if molten). Pressurized helmets may be desirable.

#### **8.9.- Body protection**

Wear full-body, industrial-type work clothing.

Do not use contaminated clothing.

Under and outer clothing should be changed and cleaned regularly.

Workers should be encouraged to report unusual skin conditions. Early diagnosis ensures that any treatment that may be necessary is effective. Regular medical examination should be carried out.

Outside workers may benefit from barrier cream.

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### **9.- PHYSICAL AND CHEMICAL PROPERTIES**

#### **9.1.- General information**

**Form:** Solid (pencil). Liquid above softening point.

**Colour:** Black

**Odour:** Characteristic

#### **9.2.- Change in conditions**

**Boiling range:** >360 °C

**Softening Point:** 30-180 °C ( DIN 51920)



**9.3.- Flash point:** > 200 °C (DIN EN 22719).

**9.4.- Ignition temperature:** > 550 °C (DIN 51 794)

**9.5.- Self-flammability:** The product is not self igniting

**9.6.- Danger of explosion:** Vapours may form explosive mixtures with air.

Lower explosion concentration (dust) is 33 g/m<sup>3</sup>.

**9.7.- Vapour pressure at 20 °C:** < 0.001 hPa ( DIN 51 754)

**9.8.- Density at 20 °C:** 1.150 - 1.400 Kg/m<sup>3</sup> ( DIN 51 757)

**9.9.- Solubility in / miscibility with water at 20 °C:** Insoluble

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## 10.- STABILITY AND REACTIVITY

### 10.1.- Conditions to avoid

Sources of ignition.

To avoid thermal decomposition, do not overheat.

### 10.2.- Materials to avoid

Contact with strong oxidizing agents.

### 10.3.- Hazardous decomposition products

No decomposition if used according to specifications. The substances arising from thermal decomposition (>400 °C) cannot be accurately predicted. Any fumes/vapours are potentially irritant/toxic and suitable protective equipment should be worn.

### 10.4.- Dangerous reactions

The product is not capable of dust explosion in the form supplied. High dust concentration due to excessive mechanical degradation causes risk of dust explosion (lower explosion concentration: 33 g/m<sup>3</sup>).

Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomised.





## 11.- TOXICOLOGICAL INFORMATION

### 11.1.- Acute toxicity. LD/LC50 values relevant for classification:

65996-93-2 pitch, coal tar, high temp.

Oral LD50> 15000 mg/kg (rat)

Dermal LD50> 5000 mg/kg (rat)

65996-93-2 pitch, coal tar, high temp.

ECO> 1000 mg/l (algae)

ECO> 1000 mg/l (daphnia)

ECO> 1000 mg/l (fish)

### 11.2.- Primary irritant effect

Short term exposure to high concentrations of dust may cause skin irritation.

Exposure to vapours from hot product may cause irritation of the nose, throat or eyes.

Headache and nausea are also possible.

Long term exposure to high concentrations of vapours may result in damage to internal organs.

**Sensitisation:** When working in strong sunlight, skin irritation may occur equivalent to sunburn (photo sensitivity). Use cream with a high protection factor (10-20) against sunlight.

### 11.3.- Additional toxicological information

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version: carcinogenic, the product can cause inheritable damage.

Sensitization: Sensitization possible by skin contact.

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## 12.- ECOLOGICAL INFORMATION

### 12.1.- General notes

Do not allow product to reach ground water, water course or sewage system.

Harmful for aquatic organisms.

Coal tar pitch is stable in water (no hydrolysis) and in soil; it is not biodegradable in the short term.

Avoid dust, fumes and vapour emissions.

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### 13.- DISPOSAL CONSIDERATIONS

#### 13.1.- Product

Must be in accordance with local authority and national legislation. Dispose of as Toxic and Hazardous Waste (Directive 78 / 319 / EC).

The waste code classification is to be carried out according to the European Waste Catalogue (EWC) specifically for each branch of industry and each type of process.

Must not be disposed together with household garbage or strong oxidizing agents. Do not allow product to reach sewage system.

#### 13.2.- Uncleaned packaging

Same as for product

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### 14.- TRANSPORT INFORMATION

#### SOLID PITCH IS NOT A DANGEROUS GOOD FOR TRANSPORT ACCORDING TO INTERNATIONAL TRANSPORT REGULATIONS

##### For liquid pitch:

#### 14.1.- Land transport ADR/RID (cross-border)

ADR/RID class:	9 Miscellaneous dangerous substances and articles
Hazard index number:	99
Packaging group:	III
UN no.:	3257
Hazard label:	9 + ET
Description of goods:	Elevated temperature liquid, n.o.s. (Contains: liquid pitch)

#### 14.2.- Maritime transport

IMDG class:	9
UN number:	3257
Label:	9 + ET
Packaging group:	III
Marine pollutant:	NO
Proper shipping name:	Elevated temperature liquid, n.o.s. (Contains: liquid pitch)

#### 14.3.- Air transport ICAO-TI and IATA-DGR

Remarks: forbidden

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## 15.- REGULATORY INFORMATION

The product has been classified and marketed in accordance with EC Directives/Ordinance on Hazardous Materials (67/478/EEC and 1999/45/EC) and their implementations

### 15.1.- Code letter and hazard designation of product

T: Toxic

### 15.2.- Hazard determining components of labelling

See item 3.5

### 15.3.- Risk phrases

R45: May cause cancer  
R46: May cause heritable genetic damage  
R60: May impair fertility  
R61: May cause harm to the unborn child  
R43: May cause sensitisation by skin contact  
R52/53: Harmful to aquatic organisms. May cause long term adverse effects in the aquatic environment.

### 15.4.- Safety phrases

S53: Avoid exposure. Obtain special instructions before use.  
S22: Do not breathe vapours  
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S27/28: After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap.  
S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.  
S24/25: Avoid contact with skin and eyes.  
S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
S61: Avoid release to the environment. Refer to special instructions/safety data sheet.  
S57: Use appropriate container to avoid environmental contamination

### 15.5.- Information about limitations of use

For professional users only.  
Employment restrictions concerning young persons must be observed.  
Employment restrictions concerning pregnant and lactating women must be observed.  
Employment restrictions concerning women of child-bearing age must be observed.



16.- **OTHER INFORMATION**

**This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.**

**16.1.- Department Issuing MSDS: R&D Department**

**16.2.- Contact: Juan José Fernández**