

Date of Issue: 25.06.2005

Replaced Data Sheet: August 2002

Product Name: Hot Pouring Compound SP / Hot Pouring Compound SN

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***1 Identification of the Substance/Preparation and the Company**

Product Name: **Hot Pouring Compound SP**
Hot Pouring Compound SN

Application: As filling compound and corrosion protection mass.

Producer/Supplier: HÖHNE GmbH
Mühlenstraße 76
D-25421 Pinneberg (Germany)
Telephone: +49 - (0)4101 / 5453 - 0 / Fax: - 33
Internet: www.hoehne.de / E-Mail: info@hoehne.de

Emergency Phone No.: In an emergency dial your local Emergency Call.
Keep this Safety Data Sheet at hand.

***2 Composition / Information on Ingredients**

Bitumen (substance).

Ingredient(s):

Substance:	% (w/w)	CAS No.:	EINECS No.:
Bitumen	100	8052-42-4	232-490-9

Additional Information:

No hazardous substance or hazardous preparation according to latest version of 67/548/EEC.
Information indicated in chapter 8 are to be considered.

***3 Hazards Identification**

Human Health Hazards:

Bitumens at ambient temperature present no human health hazards.

Bitumens are normally handled at elevated temperature which may cause thermal burns.

The exposure limits at the workplace are to be considered (see chapter 8).

Hydrogen sulphide can accumulate in the head space of storage tanks containing bitumen and can reach potentially hazardous concentrations.

Physical and Chemical Hazards:

Bitumens are typically stored and handled above 100°C and contact with water will result in a violent expansion and a danger of splashing or 'boil over'. Although not classified as flammable, bitumens are hydrocarbon materials and can burn.

Specific Hazards:

Bitumens do contain very low concentrations of Polycyclic Aromatic Compounds (PAC's). In undiluted bitumens these PAC's are not considered to be bio-available.

***4 First-Aid Measures**

Inhalation:

If inhalation of mists, fumes or vapour causes irritation to the nose or throat, or coughing, remove to fresh air. If symptoms persist obtain medical advice.

Casualties suffering ill effect as a result of exposure to hydrogen sulphide should be immediately removed to fresh air and medical assistance obtained without delay. Unconscious casualties must be placed in the recovery position. Monitor breathing and pulse rate and if breathing has failed, or is deemed inadequate, respiration must be assisted, preferably by the mouth to mouth method. Administer external cardiac massage if necessary. Seek medical attention immediately.

Skin Contact:

Cold product: Wash contaminated skin with soap and water. Remove contaminated clothing and wash underlying skin as soon as reasonably practicable.

Hot product: Flood skin with cold water to dissipate heat (at least 10 minutes). Do not attempt to remove the bitumen from the skin as it provides an airtight sterile covering over the burn which will eventually fall away with the scab as the burn heals. If for any reason the bitumen must be removed, this can be done using a slightly warmed medicinal liquid paraffin. Kerosine and other solvents should never be used. All burns should receive medical attention. It should be noted that bitumen contracts on cooling and where a limb is encased care should be taken to avoid the development of a tourniquet effect.

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***4 First-Aid Measures** (continued)

Eye Contact:

Cold product: Wash eye thoroughly with copious quantities of water, ensuring eyelids are held open. Obtain medical advice if any pain or redness develops or persists.

Hot product: Flood with cold water to dissipate heat (at least 5 minutes). In the event of any product remaining, do not try to remove it other than continued irrigation with water. Obtain medical attention immediately. In all cases the intact eye has to be protected.

***5 Fire-Fighting Measures**

Suitable Extinguishing Media:

Dry chemical powder, foam, inert gas, carbon dioxide, sand or earth, possibly water spray (fog).

Extinguishing Media which must not be used for safety reasons:

DO NOT USE water jets.

Special Exposure Hazards arising from the substance itself, combustion products, resulting gases:

Boil-over of tanks and violent eruptions in the presence of water (splatter of hot material).

Respiratory problems or nausea by excessive exposure to hot bitumen fumes.

Burning bitumen gives rise to a complex mixture of gases and airborne particles, including carbon monoxide, nitrogen oxides, sulphur dioxide as well as soot and other organic products.

Fire Fighting Protective Equipment:

Heatproof protective clothing, gloves, shoes, full head and face protection (protective screen), respirator, if necessary heavy respiratory protection.

Additional Information:

Fire arrears and contaminated fire fighting water must be disposed according to the local official regulations.

***6 Accidental Release Measures**

Personal Precautions:

Depending upon its temperature the product may be liquid, semi-solid or solid.

Hot bitumen should be handled so that there is no risk of burns.

In confined spaces, do not allow water or other liquid to contact hot bitumen.

Environmental Precautions:

Protect drains from spills and prevent entry of product, since this may result in blockage on cooling. Should blockage occur, notify the appropriate authority immediately.

Clean-up Method:

Prevent from spreading by making trench or barrier with dry sand, earth or other suitable inert material. Allow to cool and solidify. Remove mechanically into containers for disposal in accordance with local regulations.

***7 Handling and Storage**

Handling:

For quality, technical, and health, safety and environmental reasons, bitumen should not be overheated during handling and storage. The maximum temperature of the product during the storage and the handling is to be at least 30°C under the flash point (see chapter 9). Operating temperatures should be kept as low as possible to minimise fume generation.

In general bitumen is handled and stored in liquid form, therefore it must be warmed up to temperatures over 100°C. Do not allow molten bitumen to contact water or other liquids.

Avoid contact with eyes. If splashing is likely to occur wear full face visor or chemical goggles as appropriate. Avoid skin contact (skin burns) and breathing fumes (irritation of respiratory tract).

Storage:

Containers with cold bitumen should be stored tight closed at dry places. Prevent ingress of water.

Avoid contact with strong oxidising agents.

Additional Information:

Carbonaceous deposits may develop on walls and roofs of bitumen storage tanks which may be pyrophoric and may self-ignite.

Hydrogen sulphide may accumulate in tanks during long term storage at high temperatures.

Proper ventilation is required (vents should not terminate near windows or air inlet).

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***7 Handling and Storage** (continued)

Precautions during discharge from bitumen tanks:

Where bitumen is being pumped from a storage tank or road tank care should be taken to avoid the risk of fire or explosion as a result of exposing hot heater tubes.

Bitumen tanks may be heated by hot oil, steam, electricity or flame tubes. Under circumstances where bitumen is being pumped from a tank containing heater tubes precautions should be taken to prevent the level dropping below 150 mm above the tubes unless the heat has been switched off for a period of sufficient cooling. The bulk temperature of the bitumen during handling should be kept as low as possible, consistent with efficient discharge and at no time should it exceed the maximum temperature recommended by the supplier.

A check should be made to ensure that the receiving tank has sufficient storage space to accommodate the load.

***8 Exposure Controls / Personal Protection**

Engineering Measures:

Bitumen has a low volatility. Fume formation is therefore low. Exposure to fumes should be minimised.

Occupational Exposure Limits:

In the absence of any national or local regulations the following controls are recommended:

bitumen fume: long-term exposure limit (8 hour TWA) 5 mg/m³
short-term exposure limit (15 min) 10 mg/m³

Germany: TRGS 900/901 "Atmospheric Threshold Value":

Bitumen, fumes and aerosols during the hot processing:
10 mg/m³ (sum of fumes and aerosols)

Remarks: Measuring method: BIA, method-number 6305. The method seizes fumes and aerosols from bitumen according to the definition for in-breathable fraction.

Personal Protection:

Wear protective clothing for normal operations with hot material, like heat resistant coveralls (with leg over boots and cuffs over gloves), heat resistant gloves, and heavy duty boots.

If splashing is likely then additional requirements are:

Full head and face protection (protective screen and/or safety goggles) and neck cloth.

Respiratory protection is normally not required under ordinary conditions of use and with adequate ventilation. Use approved respiratory protective equipment in spaces where hydrogen sulphide vapours may accumulate.

General safety and hygienic measures:

Do not eat, drink or smoke during work.

Avoid contact with eyes, skin and clothes. Do not put any product in pockets of clothes.

Wash hands before breaks and at end of work. Do not use solvents for skin cleaning.

***9 Physical and Chemical Properties**

tested in accordance with

Physical State:	solid at ambient temperature liquid at normal handling temperature	
Colour:	dark brown to black	
Odour:	characteristic	
Softening Point Ring and Ball:	Compound SP: 45 - 50°C Compound SN: 57 - 63°C	DIN EN 1427
Flash Point COC:	> 230°C	EN 22 592
Auto-Ignition Temperature:	> 300°C	DIN 51 794
Vapour Pressure:	negligible at ambient temperature	
Density:	1,0 - 1,1 g/cm ³ (at 20°C) < 1,0 g/cm ³ (at 100°C)	DIN EN ISO 3838
Viscosity:	Compound SP: approx. 300 mPa·s (at 150°C) Compound SN: approx. 800 mPa·s (at 150°C)	Brookfield
Solubility	- water: insoluble, non miscible - organic solvents: soluble in many organic solvents	

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*10 Stability and Reactivity

Conditions to Avoid:

Excessive heating above the maximum recommended handling and storage temperatures will cause cracking and evolution of flammable vapours.

Materials to Avoid:

Do not allow hot-liquid product to contact water or other liquids.

Avoid contact with strong oxidising agents.

Hazardous Decomposition Product(s):

Thermal decomposition products will vary with conditions.

Incomplete combustion will generate smoke, carbon dioxide and hazardous gases, including carbon monoxide, hydrogen sulphide and oxides of sulphur.

In a confined space toxic gas (hydrogen sulphide) may accumulate above the bitumen.

*11 Toxicological Information

Acute toxicity:

A toxicity study of the Fraunhofer institute for toxicology and aerosol research from the year 2000 did not show any remarkable results with the rats used in the attempt.

Inhalation:

Fumes and aerosols from bitumens may lead to slight irritation of the upper respiratory tract.

Sensitisation and Irritation:

Condensed bitumen fume is likely to be slightly irritant to the skin, to the eyes and the upper respiratory tract.

Chronic Toxicity:

Bitumens present no chronic hazards at ambient temperature. Under normal conditions of use skin contact with bitumens is expected to be limited by the high temperatures needed to work the material. The safety hazard, therefore, normally limits any chronic skin hazard.

*12 Ecological Information

Environmental Effects:

Negative ecological effects are not to be expected after the past experiences.

If hot, liquid Bitumen should be spilled onto soil or water it quickly cools and becomes solid, only a physical fouling hazard then exists.

Mobility:

Ground: According to its physical properties, bitumen is not mobile and will remain on the soil surface.

Water: Insoluble in water. Bitumen will settle to the sediment surface.

Persistence and Degradation:

Under normal circumstances the product will remain in place. The material is not biodegradable.

Bioaccumulation:

The material is not expected to bioaccumulate.

Ecotoxicity:

The product is not environmentally toxic. It is not dangerous to plant and aquatic environment.

*13 Disposal Considerations

Containers must be recycled in compliance with national legislation and environmental regulations.

Waste from Residues:

Not classified as a hazardous waste. Recycling is recommended.

Dispose in conformance with national and local regulations. For the allocation of the waste code in accordance with the European Waste Catalogue (EWC) the polluter has to clarify the details with the responsible waste disposer.

Possible EWC-Codes: 05 01 17 bitumen
17 03 02 asphalt, tar free

Contaminated Packaging:

Dispose through authorised contractor or collector.

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***14 Transport Information**

Cold: Not classified as hazardous for transport (ADR, RID, UN, IATA/ICAO)

Hot: Conform to local requirements:

ADR/RID: Elevated temperature liquid n.o.s. (bitumen), Class 9, Classification Code M9,
Packing Group III, UN No. 3257, Hazard Identification No. 99

***15 Regulatory Information**

Not classified as hazardous for supply. No statutory label required.

***16 Other Information**

In North America the word asphalt is used to refer bitumen.

This data sheet was prepared in accordance with the EU Directives.

In the Safety Data Sheet all chapters which have been changed since last edition are marked with an asterisk (*) in front of the chapter number.

This Safety Data Sheet replaces all previous information.

Revised and valid from: see date of issue.

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The above details do not imply any guarantee concerning composition, properties or performance.