


Safety Data Sheet

Reference AR-R171
Prepared: July 1, 2006
Revised: March 1, 2018

【 1. Material Identification & Manufacturer Information】	
Manufacturer Name:	NISSHIN KOGYO Co., Ltd.
Address:	〒120-0025 2-23-4, Senjuazuma, Adachi-ku, Tokyo
Division:	Engineering Dept.
Tel.:	048-755-6188
Fax.:	048-755-6177
Emergency Contact:	03-3883-2613
Suggested usage:	Industrial usage (Waterproofing works)
Products Name:	Meltan 200SP
【 2. Summary of Hazard and Toxicity】	
[GHS Classification]	
Ignitable liquid:	Not listed
Acute toxicity Ingestion :	Not listed
Acute toxicity Skin :	Not listed
Acute toxicity Inhalation: (Gas) :	Not classified
Acute toxicity Inhalation: (Vapour) :	Not classified
Acute toxicity: Inhalation: (Dust, Mist)	Not classified
Dermal irritancy/corrosivity: :	Not classified
Sever damage/irritancy on Eye :	Class 2
Dermal sensitization :	Not classified
Respiratory sensitization :	Not classified
Reproductive cell mutagenicity:	Class 2
Carcinogenicity :	Class 1A
Reproductive toxicity :	Not listed
Specific target organ/whole body toxicity (single exposure)-respiratory:	Class 1
Specific target organ/whole body toxicity (single exposure)-respiratory tract irritation:	Class 3
Specific target organ/whole body toxicity (repeated exposure)-respiratory, kidney-:	Class 1
Aspiration respiratory toxicity:	Not listed
Aquatic environmental toxicity (acute):	Not classified
Aquatic environmental toxicity (chronic):	Not classified
[GHS Label]	
	
Caution word:	危険(Danger)
[Hazardous/Toxicological Information]	
<ul style="list-style-type: none"> • Strong irritancy on eye • May cause respiratory irritation • May cause hereditary disease • May cause cancer. • Organ (respiratory) disorder • Long-term or repeated exposure may cause damage to respiratory organs and kidneys. 	
[Notes]	
《Precaution Measures》	
• Avoid inhalation of dust/mist/smoke/vapor.	

•Asphalt may produce hydrogen sulfide / carbon monoxide when heated and dissolved.
Symptoms such as headache, dizziness and nausea may occur due to inhalation of fog, smoke, steam, or smoke generated during heating and melting.
You should move away as soon as possible from a contaminated area. When you enter such a place, wear a respirator.

•Wash hands, eyes, skin thoroughly after handling.
《First Aid Measures》

•Eye contact: Consult an ophthalmologist after flushing eyes with clean water a few minutes carefully. Remove the contact-lens if possible when flushing.

•If you feel unwell, seek medical advice / attention.
《Storage》

•Store at cool, well-ventirated place.

《Disposal》

•Material/container shall be disposed by the waste-disposal dealer authorized by the local governments.

【 3.Composition・Component Information 】

Single product or mixture: Mixture

Chemical name or general name: Asphalt waterproofing sheet

Component & content

Component	CAS NO.	Content (%)	ENCS No.
Asphalt	8052-42-4	40 ~ 50	(9)-1720 (12)-189
Crystalline silica	14808-60-7	15 ~ 20	(1)-548

Others: Total 100% including filler and basic materials.

【 4.First Aid Measure 】

Eye contact	•Immediately flush eyes with clean water for more than 15 minutes. Flush the entire surface of the eyes.
Skin Contact	•Consult an ophthalmologist earliest possible. •Flush the affected skin with running water and later with hot water and soap.
Inhalation	•Seek medical treatment if necessary. •Relocate the victim to an area with fresh air, make him/her rest.
Ingestion	• Seek medical treat ment if necessary. • Do not forcibly spit out, get medical examination promptly. •If the inside of the mouth is contaminated, wash thoroughly with water.

Most important information: Asphalt may contain Hydrogen Sulfide, Carbon Monoxide and when inhaling;
Hydrogen Sulfide-more than acceptable exposure concentration (10ppm) may cause headhaque, dizziness, bomitting, diarrhea.

400-700ppm with 0.5-1 hour exposure may cause sudden death, or death later.
more than 700ppm may cause lost of consciousness or respiratory paralysis for death.^{a)}

Carbon Monoxide-less than 300ppm may not cause a trouble.
less than 600ppm may cause a little trouble.
around 900ppm may cause a middle or heavy trouble.
more than 1000ppm may cause critical condition.
more than 1500ppm may cause death.^{a)}

【 5. Fire Fighting Measures 】

Extinguishing Materials	Sprayed water, Powder, CO2-Gas, Form
Fire Fighting Method	•Do not use hosed water as it may expand fire. •Remove flammable materials from fire. •Use powder, CO2-Gas for initail stage, small fire. •For large scaled fire, use form extinguisher for blocking the air. •Cool the surroundings by spaying water. •Prohibit from approaching the fire except persons concerned. •Fight fire with protective gears from the windward side.

【 6.Accidental Release Measures 】			
<ul style="list-style-type: none"> •While working, wear protective gear such as gloves, protective mask, protective eyewear etc.. •The leakages shall be collected by the bags etc and kept at safe place. • Leakage, washing water shall not be flowed out to the rivers、 drains,etc to protect environment. •Wastes, stained goods shall be disposed according to the relevant laws/regulations. •Inform to the relevant offices immediately to prevent expansion of the disaster. • Prepare the fire-extinguishing equipments. 			
【 7.Handling & Storage 】			
Handling	<ul style="list-style-type: none"> •The material of more than 3,000kgs are regarded as designated inflammable material, therefore, must be handled in accordance with the local regulations. •Avoid contact with flame, spark and heated substances. • Wear gloves and necessary protective gears to avoid burn by melted hot asphalt. 		
Storage	<ul style="list-style-type: none"> •The material of more than 3,000kgs are regarded as designated inflammable material, and must be handled/stored by following the local regulations. • Store apart from fire and heat source. • Store in a well-ventilated place. •Avoid spark, accumulation of static electricity. • Cover with waterproof sheet to avoid direct sun-light and rain. 		
【 8.Exposure Controls & Personal Protections 】			
Equipments: <ul style="list-style-type: none"> •Spark-proof ventilator should be installed in indoor-working place. • Set up the equipment for washing eye and body near the working place. 			
Control concentration and acceptable concentration			
Component	Cont. Concentration	Acceptable Concentraion	
		Industrial Health Inst.(2013)	ACGIH(2014) ^{b)}
Asphalt	Not listed(As asphalt)	Not applied(As asphalt)	TWA: 0.5mg/m ³ (As asphalt fume) 1ppm(As hydrogen sulfide) 25ppm(As carbon monoxide) STEL: Not applied (As asphalt fume) 5ppm(As hydrogen sulfide)
	Industrial Safety and Health Act Management concentration of work environment (revised April 2012) ⁿ⁾ 1ppm (As hydrogen sulfide)	5ppm (As hydrogen sulfide) 50ppm (As carbon monoxide)	
Crystalline silica	-	TWA: 0.03mg/m ³	TWA: 0.025mg/m ³
Protective gear Eye: •Wear protective eyewear when necessary. Skin: •Wear protective gears such as gloves of chemical proof when necessary. Inhalation: •Wear protective mask when necessary.			
【 9.Physical/Chemical Characteristics 】			
Appearance	Sheet	Explosive characteristics	No data available
Color	Dark Grey~Black	Vapour pressure	No data available
Smell	Slightly asphalt-like	Vapour density	No data available
pH	No data available	Gravity(as asphalt)	1.00~1.05
Specific temperature / temperature range where the physical state changes	No data available	Solubility	Not soluble in water
Melting point	No data available	Octanol-water Partition coefficient	No data available
Boiling point	No data available	Decomposition Point	No data available
Initial boiling point (as asphalt)	350°C and higher	Others	-
Flash point(as asphalt)	260°C and higher		
Ignition point (as asphalt)	About 480°C		

【 10.Stability・Reactivity 】

Stability: Stable when stored at normal temperature in dark place.
 Reactivity: Avoid contact with strong oxidizing agent.
 Material to avoid: Be careful not to come in contact with halogens, strong acids, alkalis, oxidizing substances and organic solvents.
 Decomposed hazardous toxic material: Smoke,CO,Sulfurous acid gas etc are produced by combustion.
 Others: No useful information.

【 11.Toxicological Information 】

Following data is for main component of asphalt as no data available as for the product.

Acute toxicity	No useful information as product. Acute symptom is rare. ^{c)} Oral: Rat LD50 5000mg/kg and more. ^{k)} (Asphalt) Dermal: Rabbit LD50 2000mg/kg and more. ^{k)} (Asphalt)
Dermal corrosivity/irritancy	No useful information as product. No irritancy shown by Draize-test. ^{k)} (Asphalt)
Eye damage / eye irritation	Asphalt: Class 2
Dermal sensitization	No useful information as product. Dermal sensitization test of residual oil by vacuum distillation on guinea-pig is reported as negative result. ^{a)} (Asphalt)
Respiratory Mutagenicity	No useful information as product. Asphalt: Class 2
Carcinogenicity	Crystalline silica : Class 1A Asphalt: Class 2 Classified as Class 1A as a mixture.
Reproductive toxicity	No useful information.
Specific target organ/whole body toxicity (Single exposure)	Crystalline silica : Class 1(Respiratory) Asphalt: Class 3(Respiratory tract irritation) The mixture is classified as Class 1 (Respiratory) and Class 3 (Respiratory tract irritation).
(Repeated exposure)	Crystalline silica : Class 1(Respiratory・Kidney) Asphalt: Class 1(Respiratory) Classified as Class 1(Respiratory・Kidney) as a mixture.
Aspiration respiratory toxicity	Not applicable as kinematic viscosity is more than 8000mm ² /s.
Other information	1. Gas produced by heating may cause vomitting, dizziness etc. (Asphalt) 2.Asphalt may contain Hydrogen Sulfide, Carbon Monoxide. 3. Hydrogen Sulfide- more than acceptable exposure concentraion(10ppm) may cause headaque, dizziness, bomitting,diarrhea. 400~700ppm with 0.5~1hour exposure may cause sudden death, or death later. more than 700ppm may cause lost of consciousness or respiratory paralysis for death. ^{a)} (Asphalt) 4. Carbon Monoxide- less than 300mg may not cause any trouble. less than 600ppm may cause a little trouble around 900ppm may cause a middle or heavy trouble. more than 1000ppm may cause critical condition more than 1500ppm may cause death. ^{a)} (Asphalt)

【 12.Ecological Information 】

Bio-toxicity:
 Aquatic environment hazard: No useful information
 Persistence / Degradability:
 Persistence: Asphalt does not evaporate under normal temperature, but produce fume when being heated for use of roofing, road paving. Fume will be condensed and sank to soil where being abosorbed. Volatiled fume will react with hydroxy-radical in air. In water, asphalt will float or sink as will not disperse. Asphalt will not move in soil.^{m)}(Asphalt)

Degradability: No information is available about degradability of asphalt in water. However it can be said that asphalt will maintain its property and not degradable from the fact that asphalt has been used for roofing and paving more than hundreds years.^{m)}(Asphalt)

Bio-accumulation: Asphalt can be considered to have bio-accumulation as "log Kow" of asphalt components being more than 6. However, actually asphalt is very hard to be dissolved in water. Therefore asphalt cannot be considered to be absorbed and accumulated in underwater lives.^{m)}(Asphalt)

Mobility: Not movable in soil.(Asphalt)

【 13. Disposal Considerations 】

- Incineration must be done at the safe place with the person standing watch by the methods not to damage the surroundings by fire or possible explosion. Must be obedient to the regulations, orders of the local government.
- Disposal of the large volume must be contracted out to the authorized company.
- Not dispose the waste to sea, river, waterway etc.
- Observe other related laws and regulations.

【 14. Transport Consideration 】

UN Classification: Not applied.

UN Number: Not applied.

Domestic law

and regulations: Shall be executed by observing the following laws

Land: Fire Service Law for designated flammable good (in case that volume being more than 3000kgs)

Sea: Ship Safety Law: Non-dangerous products.

Air: Civil Aeronautics Law: Non-dangerous products.

Special Note: • Take care not to suffer burn when transporting as molten condition.

• Observe other related laws and regulations.

【 15. Regulatory Information 】

The Fire Service Law: 3000kgs and over is regarded as Specific Inflammable Material.

The Industrial Safety and Health Law: • Asphalt: Substance to be notified by Cabinet Order No.11-3.
• Crystalline silica: Substance to be notified by Cabinet Order No.165-2.

The Waste Disposal

and Public Cleansing Law: Regulations for industrial waste disposal.

【 16. Others 】

Reference:

- a) Handbook on Industrial Toxicity (Medical Publication Co. 1981)
- b) ACCIH(2014) Threshold limit values and biological exposure indices.
- c) CONCAWE product dossier no. 92/104 "bitumens and bitumen derivatives."
- d) IARC (1985) Monographs on the evaluation of the carcinogenic risk of chemicals to humans. Vol. 35, SUPPLEMENT 7.
- e) Hazardous/Toxicological Substances Handling Manual (Overseas Technical Data Institute 1974)
- f) Hazardous/Toxicological Chemical Substances (Industrial Safety Central Institute, 1998)
- g) Dangerous substances sea-transportation hand book (Ship safety study center, 1997)
- h) Chemical Substances Hand Book No.V (Chemical Industry News Co., 2002)
- i) Recommendation on acceptable concentration (2006) (Japan Industrial Safety Institute, magazine)
- j) EC Committee Order No.67/548/ECC Attach 1 (Dangerous substance list)
- k) API Rep. No.30-31987 (1982)
- l) IPCS (Environmental Health Criteria 20, Selected Petroleum Products.)
- m) CONCAWE report no.01/54 environmental classification of petroleum substances summary data and rationale.
- n) Application of notice, etc. amending part of work environment measurement standards (Based on Ministry of Health, Labor and Welfare 0207 No. 3 February 7, 2012)
- o) IARC(2013) Monographs on the evaluation of the carcinogenic risk of chemicals to humans.

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Notes:

- 1) This data is for users reference and does not signify any warranty.
- 2) The data given here is based on current knowledge and information. They may be revised by new findings and/or change of law and regulations.
- 3) The precautions given here are for normal handling and storage.
Appropriate safety measures shall be taken for special handling and storage.
- 4) Compliance to regulations/law and safety for your use should be checked, confirmed by yourself.
- 5) Observe law/regulation of foreign-exchange and foreign trade in case for export trade.