Homan
Refined Supply

BITUMEN SAFETY DATA SHEET (MSDS)

PAVING GRADE 40/50, 60/70, VG · 80/100 · AH-70 · VG-10 / 30 / 40 · CLASS 170 / 240 / 320

DOCUMENT TYPE	FORMAT	DOCUMENT REF.	EFFECTIVE DATE
SAFETY DATA SHEET (MSDS)	UN GHS · 16 SECTIONS	HMN-SDS-BIT-PAV	OCT 2026 · REV. 01

HOMAN · SAFETY DATA SHEET · GHS

CLASSIFICATION	HOT PRODUCT	TRANSPORT	KEY RISK
Not classified (GHS / CLP)	Burn hazard · max 200 °C	Cold: not regulated · Hot bulk: UN 3257, Cl. 9	H_2S in headspaces

01 IDENTIFICATION

1.1 PRODUCT IDENTIFIER	**HOMAN Paving Grade Bitumen** (asphalt cement). Grades covered: Penetration 40/50, 60/70, 80/100 · AH-70 · VG-10, VG-30, VG-40 · Class 170, 240, 320
CHEMICAL NAME / SYNONYMS	Asphalt (petroleum bitumen); asphaltic bitumen; vacuum residue
CAS NO. · EC NO.	8052-42-4 · 232-490-9
HS CODE	2713.20
1.2 IDENTIFIED USES	Binder for hot-mix asphalt and road construction (industrial and professional use). Uses advised against: any use other than the above.
1.3 SUPPLIER	HOMANCORP (HOMAN) · Iran Web: homancorp.com · E-mail: info@homancorp.com Address: Unit 28, Orkideh Commercial Complex, 21st St., South Sazman-e Barnameh, Naser Hejazi Blvd., Sattari Hwy., Tehran, Iran Telephone: +98 912 490 2130
1.4 EMERGENCY TELEPHONE	+98 912 490 2130 (24 h)

02 HAZARD IDENTIFICATION

2.1 CLASSIFICATION	Not classified as hazardous under the UN GHS and Regulation (EC) No 1272/2008 (CLP).
2.2 LABEL ELEMENTS	Pictogram: none · Signal word: none · Hazard statements: none · Precautionary statements: none
2.3 OTHER HAZARDS	**Hot product (handled at up to 200 °C):** contact causes severe thermal burns to skin and eyes. Contact of hot bitumen with water causes violent expansion and boil-over. **Hydrogen sulphide (H_2S):** may accumulate in tank headspaces, confined spaces and transport tanks; very toxic and extremely flammable gas. **Fumes:** may irritate eyes, nose and respiratory tract at high concentrations. Pyrophoric carbonaceous / iron-sulphide deposits may form inside heated tanks. Not a PBT or vPvB substance.

03 COMPOSITION / INFORMATION ON INGREDIENTS

3.1 SUBSTANCE

COMPONENT	CAS NO.	EC NO.	% W/W
Asphalt (petroleum bitumen)	8052-42-4	232-490-9	99–100
Hydrogen sulphide (may be released, trace)	7783-06-4	231-977-3	trace

DESCRIPTION	Complex combination of high-molecular-weight hydrocarbons obtained as the residue of vacuum distillation of crude oil. Contains no added hazardous components.

04 FIRST-AID MEASURES

PROTECTION OF FIRST AIDERS	Wear self-contained breathing apparatus (SCBA) if H_2S may be present. Do not enter a confined space to rescue without SCBA.
INHALATION	Move to fresh air and keep at rest. If breathing has stopped, give artificial respiration; if unconscious, place in the recovery position. Get medical attention. H_2S exposure: obtain immediate medical attention.

SKIN – HOT PRODUCT	Cool the burn immediately with cold running water for at least 15 minutes. **Do not pull off adhering bitumen.** For a circumferential burn, split the adhering bitumen to prevent a tourniquet effect as it cools. Removal of bitumen only under medical supervision (e.g. warm medicinal paraffin).
SKIN – COLD PRODUCT	Remove with a skin cleanser and wash with soap and water. Do not use solvents.
EYES	Hot product: cool immediately under cold running water for at least 10 minutes and seek urgent medical (ophthalmologist) attention. Cold product / dust: rinse with plenty of water.
INGESTION	Unlikely route of exposure. Do not induce vomiting. Rinse mouth; give water if conscious. Get medical advice.
SYMPTOMS AND EFFECTS	Thermal burns; irritation of eyes and upper respiratory tract from fumes. H_2S may cause headache, dizziness, loss of smell and rapid unconsciousness; delayed lung oedema possible.
NOTE TO PHYSICIAN	Treat symptomatically. In the case of burns, no attempt should be made to remove firmly adherent bitumen.

05 FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA	Foam, dry chemical powder, carbon dioxide, water fog. Small fires: sand or earth.
UNSUITABLE MEDIA	**Water jet.** Water on hot bitumen causes violent boil-over and splattering.
SPECIFIC HAZARDS	Combustion gives a complex mixture of airborne particulates and gases, including carbon monoxide, carbon dioxide, sulphur oxides, hydrogen sulphide and unidentified organic and inorganic compounds.
ADVICE FOR FIRE-FIGHTERS	Full protective clothing and SCBA. Cool exposed containers, structures and equipment with water spray. Switch off heaters and circulation pumps; close valves if safe to do so.

06 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS	Evacuate non-essential personnel; keep upwind; remove sources of ignition. Avoid contact with hot material and do not breathe fumes. Assess H_2S risk before entering enclosed areas. Wear PPE as in Section 8.
ENVIRONMENTAL PRECAUTIONS	Prevent entry into drains, sewers, soil and watercourses. Notify the authorities of any release to water.
CLEAN-UP	Hot product: do not direct water or foam jets onto it; let it cool and solidify, then recover as a solid. Small spills: contain with sand or earth and shovel into labelled containers. Large spills: transfer to labelled, sealable containers for recovery or disposal.

07 HANDLING AND STORAGE

SAFE HANDLING	Avoid contact with hot product and avoid breathing fumes. Use heat-resistant, dry hoses. Never allow water or wet material into hot bitumen. Do not eat, drink or smoke when handling. Apply confined-space and permit-to-work procedures where H_2S may accumulate.
TEMPERATURE	Maximum handling/storage temperature for paving bitumen: **200 °C**. Keep at least **30 °C below the flash point**. Use the lowest practicable temperature.
STORAGE – BULK TANKS	Purpose-built, insulated, heated mild-steel tanks; keep heating coils covered with product (min. 15 cm). Prevent ingress of water. Carbonaceous deposits on tank roofs/walls may be pyrophoric. Bund the storage area.
PACKAGING	Packaging (per HOMAN TDS, grade-dependent): new steel drums (180 kg), jumbo bags (1 MT), flexitanks (20 MT) and bulk vessel. Drums and jumbo bags: store upright on firm, dry ground, protect bags from rain and direct sun, stack drums and jumbo bags on level, firm ground; stacking height per local storage regulations and packaging manufacturer limits. Melt drums/bags only in purpose-built melting units; open or vent containers before heating.
INCOMPATIBLE MATERIALS	Strong oxidising agents. Unsuitable container materials for hot product: plastics.

08 EXPOSURE CONTROLS / PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS

SUBSTANCE	LIMIT	SOURCE
Asphalt (bitumen) fumes, as benzene-soluble aerosol, inhalable	TWA 0.5 mg/m³	ACGIH TLV
Asphalt, petroleum fumes	TWA 5 mg/m³ · STEL 10 mg/m³	UK HSE EH40 WEL
Hydrogen sulphide	TWA 1 ppm · STEL 5 ppm	ACGIH TLV

Apply national limits of the country of use where these are stricter.

ENGINEERING CONTROLS	Good general and local exhaust ventilation; flame-proof equipment near hot product. Safety shower and eye-wash close to loading points. H_2S detection for tanks and confined spaces.

EYE / FACE	Goggles; full-face visor with helmet and neck protection when hot product may splash (loading/unloading).
HANDS	Heat-resistant gloves, close fitting at the wrist, with long cuffs.
BODY	Heat-resistant cotton coveralls closed at neck and wrist, legs worn over boots; safety boots.
RESPIRATORY	Not normally required outdoors. Inadequate ventilation: filter type B. Confined spaces / H_2S: SCBA.

09 PHYSICAL AND CHEMICAL PROPERTIES

PROPERTY	VALUE	BASIS
Physical state	Solid to semi-solid at ambient temperature; viscous liquid when hot	Industry SDS data
Colour · Odour	Black · characteristic (hydrocarbon)	Industry SDS data
Softening point (R&B)	Grade-dependent: min 40 °C (VG-10) to 52–60 °C (40/50)	HOMAN TDS
Flash point (Cleveland open cup)	≥ 220 °C; grade minimum per TDS: 220 (VG), 225 (80/100), 250 (40/50, 60/70, Class), 260 (AH-70)	HOMAN TDS · ASTM D92
Relative density	1.00–1.06 (25 °C / 15 °C, grade-dependent)	HOMAN TDS
Kinematic viscosity, 135 °C	Grade-dependent; e.g. VG-30 min 350 mm^2/s	HOMAN TDS
Initial boiling point	> 320 °C	Industry SDS data
Auto-ignition temperature	> 400 °C	Industry SDS data
Vapour pressure	< 0.1 kPa at 20 °C	Industry SDS data
Flammability	Not flammable as supplied; will burn	Industry SDS data
Explosion limits · Decomposition temp.	Not established	Industry SDS data
Solubility	Insoluble in water; min 99 % soluble in trichloroethylene	HOMAN TDS
pH · log Kow	Not applicable · not established	Industry SDS data

Batch values are reported on the Certificate of Analysis (COA).

10 STABILITY AND REACTIVITY

REACTIVITY · STABILITY	Stable under normal conditions of storage and handling. Hazardous polymerisation will not occur.
CONDITIONS TO AVOID	Temperatures above 200 °C; heating near the flash point; contact of hot product with water; ignition sources.
INCOMPATIBLE MATERIALS	Strong oxidising agents.
HAZARDOUS DECOMPOSITION	H_2S may be released on heating. Combustion: carbon monoxide, carbon dioxide, sulphur oxides, hydrocarbons.

11 TOXICOLOGICAL INFORMATION

ACUTE TOXICITY	Oral LD50 (rat) > 5000 mg/kg bw · Dermal LD50 > 2000 mg/kg bw · Inhalation LC50 (rat) > 94.4 mg/m^3. Classification criteria not met.
SKIN / EYE IRRITATION	Non-irritant (rabbit, OECD 404/405). Vapours from hot product may be slightly irritating.
SENSITISATION	Not sensitising (guinea pig, OECD 406).
MUTAGENICITY · REPRODUCTION	No evidence of mutagenic or reproductive effects. Criteria not met.
CARCINOGENICITY	Not classified under GHS/CLP. IARC: occupational exposure to straight-run bitumens and their emissions during road paving – Group 2B. ACGIH: A4.
STOT · ASPIRATION	Criteria not met.

12 ECOLOGICAL INFORMATION

TOXICITY	Not classified. Poorly soluble; practically non-toxic to aquatic organisms (LC/EC50 > 100 mg/l, estimated as water-accommodated fraction).
PERSISTENCE · BIOACCUMULATION	Not inherently biodegradable. Bioaccumulation unlikely due to very low water solubility.
MOBILITY	Solid under most environmental conditions; low mobility in soil.
PBT / VPVB	Not a PBT or vPvB substance.

13 DISPOSAL CONSIDERATIONS

PRODUCT / SPILLS	Allow to cool and solidify. Recover for reuse where possible; otherwise dispose of via a licensed waste contractor in line with local and national regulations. Do not contaminate soil or water.
PACKAGING	Empty drums and bags retain residue; do not cut, weld or burn. Recycle or dispose of via a licensed contractor.

14 TRANSPORT INFORMATION

CLASSIFICATION

	AMBIENT / SOLID (DRUMS, JUMBO BAGS, COLD)	HOT LIQUID, ≥ 100 °C AND BELOW FLASH POINT (BULK / TANKER / HEATED VESSEL)
UN number	Not regulated	**UN 3257**
Proper shipping name	—	ELEVATED TEMPERATURE LIQUID, N.O.S. (Bitumen)
Class · Packing group	—	9 · III
ADR/RID	Not regulated	Hazard ID No. 99 · Tunnel code (D)
IMDG	Not regulated	Class 9 · EmS F-A, S-P · Marine pollutant: No
IATA	Not regulated	Forbidden in molten state

SPECIAL PRECAUTIONS	Bulk hot cargo: keep below the flash point and within carrier temperature limits; H_2S may accumulate in tank and hold headspaces – test before entry. Packed product (drums, jumbo bags, flexitanks) is shipped cold and is not dangerous goods.

15 REGULATORY INFORMATION

CLASSIFICATION BASIS	UN GHS (Rev.) and EU CLP: not classified. EU REACH: registered substance (asphalt, EC 232-490-9); no authorisation or restriction applies.
NATIONAL REGULATIONS	Users must comply with the regulations of the country of import and use.

16 OTHER INFORMATION

RELATED DOCUMENTS	SDS landing page: homancorp.com/downloads/sds/ Technical Data Sheets (TDS): 40/50 · 60/70 · 80/100 · VG-10 · VG-30 · VG-40 · AH-70 · Class 170 · Class 240 · Class 320 Product information: homancorp.com
REVISION	OCT 2026 · Rev. 01 · first issue in GHS 16-section format.
KEY REFERENCES	ECHA registration dossier, asphalt (CAS 8052-42-4); CONCAWE Chemical Safety Report (2013); Eurobitume Safe Handling of Bitumen; ACGIH TLVs; NIOC Isfahan bitumen MSDS; supplier SDS for paving bitumen 60/70.
ABBREVIATIONS	COA – Certificate of Analysis · SCBA – self-contained breathing apparatus · TWA – time-weighted average · STEL – short-term exposure limit · PBT/vPvB – persistent, bioaccumulative, toxic.
DISCLAIMER	The information is given in good faith on the basis of current knowledge. It describes safety requirements and does not guarantee product properties. Users must make their own risk assessment for their specific use.