

SAFETY DATA SHEET

Bitumen KP 60/70



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

1.1 Product identifier

Product name : Bitumen KP 60/70
Viscosity or Type : 60/70
Material uses : Paving grade bitumen
EC number : 232-490-9
REACH Registration number

Registration number	Legal entity
01-2119480172-44	-

CAS number : 8052-42-4

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

Not applicable.

1.3 Details of the supplier of the safety data sheet

Manufacturer / Distributor : Kuwait Petroleum Corporation
 P.O. Box 26565 Safat
 13126 Safat
 Kuwait
 Tel. +965 1858585, Fax 2423371/2467159/246

e-mail address of person responsible for this SDS : SDSinfo@Q8.com, communication preferably in English only.

1.4 Emergency telephone number

Europe : 0044 (0) 1235 239 670
Global (English only) : 0044 (0) 1865 407 333



SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : UVCB

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Not classified.

Ingredients of unknown toxicity : None.

Ingredients of unknown ecotoxicity : None.

Classification according to Directive 67/548/EEC [DSD]

Not classified.

See Section 16 for the full text of the R phrases or H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :
Signal word : No signal word.
Hazard statements : No known significant effects or critical hazards.
Precautionary statements
Prevention : Not applicable.
Response : Not applicable.

Date of issue/Date of revision : 18-11-2011.

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SECTION 2: Hazards identification

Storage : Not applicable.
Disposal : Not applicable.
Supplemental label elements : Safety Data Sheet available for professional user on request.

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.
Tactile warning of danger : Not applicable.

2.3 Other hazards

Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII : No.
 PBT: Specified

Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : No.
 vPvB: Specified

Other hazards which do not result in classification : Hazardous concentrations of hydrogen sulphide (H₂S) gas may accumulate in the vapour space of storage vessels. Standard procedures for opening or entering tanks, vessels or other containers must strictly be followed to avoid inhalation of this acutely toxic gas. Defatting to the skin.

SECTION 3: Composition/information on ingredients

Substance/mixture : UVCB

Product/ingredient name	Identifiers	%	Classification		Type
			67/548/EEC	Regulation (EC) No. 1272/2008 [CLP]	
Asphalt	REACH #: 01-2119480172-44 EC: 232-490-9 CAS: 8052-42-4	100	Not classified.	Not classified.	[*]
hydrogen sulphide	EC: 231-977-3 CAS: 7783-06-4 Index: 016-001-00-4	<0.1	F+; R12 T+; R26 N; R50 See Section 16 for the full text of the R-phrases declared above.	Flam. Gas 1, H220 Press. Gas, H280 Acute Tox. 2, H330 Aquatic Acute 1, H400 See Section 16 for the full text of the H statements declared above.	[A]

The mineral oils in the product contain < 3% DMSO extract (IP 346).

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

Type

[*] Substance

[A] Constituent

[B] Impurity

[C] Stabilizing additive

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures**4.1 Description of first aid measures**

- Eye contact** : Hot material: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If exposure to hydrogen sulphide is suspected or cannot be excluded, obtain medical attention IMMEDIATELY. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Wash skin thoroughly with soap and water or use recognized skin cleanser. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention if adverse health effects persist or are severe. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse. Hot product: The area should be cooled IMMEDIATELY under running water for up to 10 minutes. To avoid further damage to the skin no attempt should be made to remove bitumen FIRMLY adhering to the skin. If adverse skin effects follow, refer for medical attention.
- Ingestion** : Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed**Potential acute health effects**

- Eye contact** : Heated material can cause thermal burns.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : May be harmful in contact with skin. Defatting to the skin. May cause skin dryness and irritation. Heated material can cause thermal burns.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
irritation
dryness
cracking
- Ingestion** : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

SECTION 5: Firefighting measures**5.1 Extinguishing media**

- Suitable extinguishing media** : Use dry chemical, CO₂, alcohol-resistant foam or water spray (fog).
- Unsuitable extinguishing media** : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

SECTION 5: Firefighting measures

- Hazards from the substance or mixture** : No specific fire or explosion hazard.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
sulfur oxides
Hydrogen sulphide
- 5.3 Advice for firefighters**
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. Hot material: Avoid contact with eyes, skin and clothing.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

- : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

- Small spill** : Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

6.4 Reference to other sections

- : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Hazardous concentrations of hydrogen sulphide (H₂S) gas may accumulate in the vapour space of storage vessels. Standard procedures for opening or entering tanks, vessels or other containers must strictly be followed to avoid inhalation of this acutely toxic gas.

SECTION 7: Handling and storage

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities : Store between the following temperatures: 140 to 180°C (284 to 356°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Provide adequate ventilation.

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
Asphalt	ACGIH TLV (United States, 2/2010). TWA: 0.5 mg/m ³ , (as benzene soluble aerosol) 8 hour(s). Form: Inhalable fraction
hydrogen sulphide	EU OEL (Europe, 12/2009). Notes: list of indicative occupational exposure limit values TWA: 7 mg/m ³ 8 hour(s). TWA: 5 ppm 8 hour(s). STEL: 14 mg/m ³ 15 minute(s). STEL: 10 ppm 15 minute(s).

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

Derived effect levels

No DELs available.

Predicted effect concentrations

No PECs available.

8.2 Exposure controls

Appropriate engineering controls : Product may release hydrogen sulphide: a specific assessment of inhalation risks from the presence of hydrogen sulphide in tank headspaces, confined spaces, product residue, tank waste and waste water and unintentional releases should be made to help determine controls appropriate to local circumstances. Use only with adequate ventilation.

Individual protection measures

SECTION 8: Exposure controls/personal protection

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Wear suitable gloves tested to EN374.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Thermal hazards** : When handling hot material, wear heat-resistant protective gloves, clothing and face shield that are able to withstand the temperature of the molten product.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties****Appearance**

- Physical state** : Solid. [at 20°C]
- Appearance** : Viscous liquid. at °C: 70
- Color** : Brown. to Black. [Dark]
- Odor** : Characteristic.
- Odor threshold** : Not applicable.
- pH** : Not applicable.
- Melting point/freezing point** : Not available.
- Initial boiling point and boiling range** : >320°C
- Flash point** : Open cup: >230°C [ASTM D92.]
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not applicable.
- Upper/lower flammability or explosive limits** : Not available.
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Relative density** : 1
- Solubility(ies)** : Insoluble in the following materials: cold water and hot water.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : >320°C
- Decomposition temperature** : >320°C
- Viscosity (40°C)** : Not available.

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SECTION 9: Physical and chemical properties

Explosive properties : Not applicable.

Oxidizing properties : Not applicable.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : The product is stable.

10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : No specific data.

10.5 Incompatible materials : Reactive or incompatible with the following materials:
Strong oxidizing materials

10.6 Hazardous decomposition products : Decomposition products may include the following materials:
sulfur oxides
Hydrogen sulphide

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Asphalt	LD50 Dermal	Rabbit - Male, Female	>2000 mg/kg	-
hydrogen sulphide	LD50 Oral	Rat	>5000 mg/kg	-
	LC50 Inhalation Gas.	Rat	444 ppm	4 hours
	LC50 Inhalation Vapor	Rat	700 mg/m ³	4 hours

Conclusion/Summary : Not available.

Irritation/Corrosion

Conclusion/Summary

Skin : Non-irritant to skin.

Eyes : Non-irritating to the eyes.

Sensitization

Conclusion/Summary

Skin : Not sensitizing

Mutagenicity

Product/ingredient name	Test	Experiment	Result
Asphalt	-	Experiment: In vivo Subject: Mammalian-Animal Cell: Germ	Negative

Conclusion/Summary : Not available.

Carcinogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Asphalt	Negative - Inhalation - TC	Rat - Male, Female	103.9 mg/m ³	104 weeks

Conclusion/Summary : Not available.

Reproductive toxicity

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SECTION 11: Toxicological information

Product/ingredient name	Maternal toxicity	Fertility	Development toxin	Species	Dose	Exposure
Asphalt	Negative	Negative	Negative	Rat - Male, Female	Inhalation: 30 mg/m ³	28 days; 6 hours per day

Conclusion/Summary : Not available.

Teratogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Asphalt	Negative - Inhalation	Rat - Male, Female	30 mg/m ³	28 days; 6 hours per day

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : Heated material can cause thermal burns.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : May be harmful in contact with skin. Defatting to the skin. May cause skin dryness and irritation. Heated material can cause thermal burns.
- Ingestion** : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
irritation
dryness
cracking
- Ingestion** : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Potential chronic health effects

Product/ingredient name	Result	Species	Dose	Exposure
Asphalt	Chronic NOAEL Dermal	Rabbit - Male, Female	2000 mg/kg	28 days; 3 days per week
	Chronic NOAEL Inhalation Dusts and mists	Rat - Male, Female	103.9 mg/l	2 years; 5 days per week

Conclusion/Summary : Not available.

General : No known significant effects or critical hazards.

SECTION 11: Toxicological information

Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.

Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Asphalt	Acute EC50 >1000 mg/l Fresh water	Algae	72 hours
	Acute LC50 >1000 mg/l Fresh water	Daphnia	48 hours
	Acute LC50 >1000 mg/l Fresh water	Fish	96 hours
	Chronic NOEC >1000 mg/l Fresh water	Daphnia	21 days
hydrogen sulphide	Acute EC50 62 ug/L Fresh water	Crustaceans - Gammarus pseudolimnaeus - 11 mm	2 days
	Acute LC50 <2 ug/L Fresh water	Fish - Perca flavescens - Yolk-sac fry	96 hours

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not applicable

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : No.
PBT: Specified

vPvB : No.
vPvB: Specified

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

SECTION 13: Disposal considerations

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Hazardous waste : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.

European waste catalogue (EWC)





Waste code	Waste designation
05 01 17 17 03 02	bitumen bituminous mixtures other than those mentioned in 17 03 01

Packaging

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN/ADNR	IMDG	IATA
14.1 UN number	UN3257	UN3257	UN3257	UN3257
14.2 UN proper shipping name	ELEVATED TEMPERATURE LIQUID, N.O.S.	ELEVATED TEMPERATURE LIQUID, N.O.S.	ELEVATED TEMPERATURE LIQUID, N.O.S.	Elevated temperature liquid, n.o.s.
14.3 Transport hazard class(es)	9 	9 	9 	9 
14.4 Packing group	III	III	III	III
14.5 Environmental hazards	No.	No.	No.	No.
14.6 Special precautions for user	Not available.	Not available.	Not available.	Not available.
Additional information	Hazard identification number 99 Limited quantity LQ0 Special provisions 274 580 643 Tunnel code D	-	Emergency schedules (EmS) F-A, _S-P_	Passenger and Cargo Aircraft Quantity limitation: Forbidden Packaging instructions: Forbidden Cargo Aircraft Only Quantity limitation: Forbidden Packaging instructions: Forbidden

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SECTION 14: Transport information

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not available.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Other EU regulations

National Inventory List : **Australia inventory (AICS)**: All components are listed or exempted.
China inventory (IECSC): All components are listed or exempted.
Japan inventory: All components are listed or exempted.
Korea inventory: All components are listed or exempted.
New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.
Philippines inventory (PICCS): All components are listed or exempted.
United States inventory (TSCA 8b): All components are listed or exempted.
Europe inventory: All components are listed or exempted.
Canada inventory: All components are listed or exempted.

Black List Chemicals : Not listed

Priority List Chemicals : Not listed

Integrated pollution prevention and control list (IPPC) - Air : Not listed

Integrated pollution prevention and control list (IPPC) - Water : Not listed

International regulations

Chemical Weapons Convention List Schedule I Chemicals : Not listed

Chemical Weapons Convention List Schedule II Chemicals : Not listed

Chemical Weapons Convention List Schedule III Chemicals : Not listed

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
 DNEL = Derived No Effect Level
 EUH statement = CLP-specific Hazard statement
 PNEC = Predicted No Effect Concentration
 RRN = REACH Registration Number

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Not classified.	

Full text of abbreviated H statements : H220 Extremely flammable gas.
 H280 Contains gas under pressure; may explode if heated.
 H330 Fatal if inhaled.
 H400 Very toxic to aquatic life.

Full text of classifications [CLP/GHS] : Acute Tox. 2, H330 ACUTE TOXICITY: INHALATION - Category 2
 Aquatic Acute 1, H400 AQUATIC TOXICITY (ACUTE) - Category 1
 Flam. Gas 1, H220 FLAMMABLE GASES - Category 1
 Press. Gas Comp. Gas, H280 GASES UNDER PRESSURE - Compressed gas

Full text of abbreviated R phrases : R12- Extremely flammable.
 R26- Very toxic by inhalation.
 R50- Very toxic to aquatic organisms.

Full text of classifications [DSD/DPD] : F+ - Extremely flammable
 T+ - Very toxic
 N - Dangerous for the environment

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Prepared by : Kuwait Petroleum Research & Technology B.V., The Netherlands

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.