

MOTOR SPIRT
1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

SUBSTANCE OR PREPARATION TRADE NAME	Motor spirit (gasoline/petrol)
CHEMICAL CLASSIFICATION	Hydrocarbon mixture
COMPANY/ UNDERTAKING NAME AND ADDRESS	Haldia Petrochemicals Limited, PO Box No 12, Haldia Plant PO Durgachak, Dist Midnapore West Bengal, India PIN 721 602
TELEPHONE	091-3224-274384 / 274400
EMERGENCY TELEPHONE NUMBER	091-3224-275916

2. COMPOSITION AND INFORMATION ON INGREDIENTS

CHEMICAL NAME	% CONTENT	CAS NUMBER	EXPOSURE LIMITS IN AIR (ppm)		
			ACGIH TLV-TWA	ACGIH TLV-STEL	IDLH
Hydro treated distillate blend	100	86290-81-5	300	500	DNA
The above listed CAS number and product is composed of the following components.					
Benzene	1	71-43-2	0.5	2.5	
Ethyl benzene	7-10	100-41-4	100	125	
Toulene	19-20	108-88-3	50	150	
Xylene	3-5	1330-20-7	100	150	
C ₉ Aromatics	3-4	Mixture			
C ₆ naphthenes	18-20	Mixture			
C ₅ /C ₆ Paraffin	40	Mixture			

3. HAZARD CLASSIFICATION

EMERGENCY OVERVIEW	It is an extremely flammable. The vapour is heavier than air and explosive mixtures can accumulate in low spots. It may be ignited at some distance away from exposed motor spirit resulting in flashbacks. Aspiration into lungs caused by vomiting is harmful and can be fatal				
POTENTIAL HEALTH HAZARDS					
	EYE	SKIN	INHALATION	INGESTION	OTHERS
ACUTE	Short-term irritation with redness and stinging	Unlikely to cause irritation on single contact. Prolonged or repeated contact may cause short-term irritation, defatting of skin and could result in dermatitis	High vapour concentrations can cause irritation to eyes and mucous membranes, and drowsiness leading to loss of consciousness	The swallowing of small amounts may cause nausea and diarrhoea, larger amounts may cause irritation and drowsiness with vomiting	Inhalation of vapours /mists may cause respiratory system irritation

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CHRONIC	No chronic health effects occur at exposure levels encountered in the distribution and use of petrol as a motor fuel. Case reports of chronic petrol abuse have reported a range of neurological effects, sudden death from cardiac arrest, hematologic changes and leukaemia.			
NFPA HAZARD SIGNALS	HEALTH 1	FLAMMABILITY 3	REACTIVITY 0	SPECIAL
HAZCHEM CODE	3 Y E			

4. FIRST AID MEASURES

SKIN CONTACT	Wash skin as soon as possible with soap and water. Change contaminated clothing and launder before reuse. Red medical advice if irritation persists
EYE CONTACT	Wash out thoroughly with large amounts of water. If redness and/or irritation continuous get medical advice.
INHALATION	If inhalation of vapour irritation or drowsiness remove to fresh air. Get medical advice if the symptoms continue.
INGESTION	Wash mouth out with water and give water to drink. (Milk if available). Get medical advice
OTHER INSTRUCTIONS	Do not induce vomiting because of danger of aspiration

5. FIRE FIGHTING MEASURES

FLASH POINT	-42.7 ⁰ C
AUTO IGNITION TEMP	280 ⁰ C
FLAMMABLE LIMITS IN AIR BY VOL%	LEL % 1.4, UEL % 7.8.
FIRE EXTINGUISHING AGENTS AND SPECIAL PROCEDURES	Dry powder, foam, carbon dioxide
UNUSUAL FIRE AND EXPLOSION HAZARDS	Do not use water jets, waterfog should be left to experienced personnel
SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS	Fires in confined space should be dealt with by trained personnel wearing approved breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS	Treat any spillage as a major fire hazard
ENVIRONMENTAL PRECAUTIONS	Vapour heavier than air and collect in sumps and drainage systems
METHOD OF CLEANING	Contain spillage; do not wash spillage down drain. Absorb using absorbent clay, diatomaceous clay or other suitable absorbent.

7. HANDLING AND STORAGE

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HANDLING	Where exposure is likely protective clothing must be worn including impervious gloves and eye protection. Ensure good ventilation at all times classified extremely flammable.
STORAGE	Keep away from the sparks, flame and other sources of ignition. Protect container against static electricity, lighting and physical damage. Hot work (e.g./ cutting and welding) must not be carried out on or near any container used for storage of this product unless it has been made safe by pugging or other suitable means. Drums should not be stored on their sides on racks preferably under cover, out of direct sunlight in well-ventilated conditions. Other types of container should be stored under cover out of direct sunlight, in well-ventilated conditions. Care should be taken to avoid over stacking

8. EXPOSURE CONTROLS-PERSONAL PROTECTION

VENTILATION AND ENGINEERING CONTROL	Use in well ventilated area with local exhaust ventilation. Ventilation required and equipment must be explosion proof. Use away from all ignition sources.		
OTHER CONTROL PARAMETERS			
PERSONAL PROTECTION EQUIPMENT			
EYE/ FACE PROTECTION	RESPIRATORY PROTECTION	HAND PROTECTION	BODY PROTECTION
Goggles giving complete protection to eyes	In case of insufficient ventilation wear suitable respiratory protection	PVC or other plastic material gloves	Chemical resistant apron/flame retardant antistatic protective clothing, heavy duty work shoes

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	ODOUR	PHYSICAL STATE	BOILING POINT
Colourless to light orange liquid	Gasoline like	Liquid	46.5--190 ⁰ C
MELTING / FREEZING POINT	SPECIFIC GRAVITY (AT20 ⁰ C) (WATER=1)	PH	SOLUBILITY IN WATER (AT 30 ⁰ C)
N/A	0.767-0.775	NA	Insoluble
VAPOUR PRESSURE (AT 20 ⁰ C) IN kPa	VAPOUR DENSITY (AIR=1)	OTHER INFORMATIONS	VISCOSITY
46-60	3-4	Motor spirit contains hydrocarbons (mainly aromatics) from C5 to C8	

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID	Keep away from heat and sources of ignition.
MATERIALS WITH WHICH SUBSTANCE	May react with strong oxidisers like liquid oxygen,

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MATERIAL SAFETY DATA SHEET (MSDS)

IS INCOMPATIBLE	Cl ₂
HAZARDOUS DECOMPOSITION PRODUCTS	Carbon monoxide, hazardous fumes and gases, Carbon Dioxide etc.
HAZARDOUS POLYMERIZATION	Hazardous polymerisation reaction will not occur.

11. TOXICOLOGICAL INFORMATION

ANIMAL TOXICITY DATA	
ORAL: LD50 IN (rat) g/kg : >2000 mg/kg	DERMAL: LD50 (rabbit) g/kg: >2000 mg/kg
REPRODUCTIVE TOXICITY INFORMATION	
REPRODUCTIVE TOXICITY	No adverse reproductive effects
MUTAGENICITY	No mutagenic effects
EMBRYOTOXICITY	No adverse effects
TERATOGENICITY	No mutagenic effects

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL STABILITY	Expected to biodegrade slowly
EFFECT OF MATERIAL ON PLANTS OR ANIMALS	There is no evidence to suggest bioaccumulation will occur. Spillage may penetrate the soil causing ground water contamination.
EFFECT OF CHEMICAL ON AQUATIC LIFE	Likely to harm aquatic organism, may cause long-term adverse effects in the aquatic environment. Likely to evaporate rapidly, but any films formed on water may affect oxygen transfer and damage organism

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHODS	Disposal should be carried out by incineration or as required under local authority regulations. Under no circumstances should spirit be discharged into the public drainage system or marine and inland waterways
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14. TRANSPORT INFORMATION

	PROPER SHIPPING NAME	HAZARD CLASS	IDENTIFICATION NUMBER	PACKING GROUP	LABEL REQUIRED
DOT	Motor spirit	3	1203	II	Flammable liquid
TDG	Motor spirit	3	1203	II	Flammable liquid
IMDG	Motor spirit	3.1	1203	II	Flammable liquid
IATA/ICAO	Motor spirit	3	1203	II	Flammable liquid

15. REGULATORY INFORMATION

INDIAN REGULATION	Manufacture Import & Storage of hazardous chemical rules. Amended as on 2000
INTERNATIONAL REGULATIONS	

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EU CLASSIFICATION	RISK PHRASES	R12 Extremely flammable, R20/R21/R22: Harmful by inhalation, in contact with the skin and if swallowed. R33: danger of cumulative effects. R38: Irritation to Skin. R65: Harmful: May cause lung damage if swallowed.
	SAFETY PHRASES	S23: Do not breath spray. S24: Avoid contact with skin. S16: Keep away from source of ignition- No smoking. S43: In case of fire, use foam /dry powder/ CO2. Never use water jets. S62: If swallowed do not induce vomiting: Seek medical advice immediately and show this container & level.
WHMIS CLASSIFICATION		
SARA CLASSIFICATION		This product contains no "Extremely Hazardous Substances". SARA (311 /312) Reportable hazard categories: Fire, Chronic, and Acute. This product contains no chemicals reportable under SARA (313) toxic release program.

16. OTHER INFORMATION

DISCLAIMER	Information contained in this material safety data sheet is believed to be reliable but no representation, guarantee or warranties of any kind are made as to its accuracy, suitability for a particular application or results to be obtained from them. It is upto the user/ distributor to ensure that the information contained in the material safety data sheet is relevant to the product manufactured/ handled or sold by him as the case may be. HPL makes no warranties, expressed or implied, in respect of the adequacy of this document for any particular purpose.
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