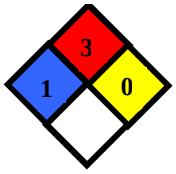
MATERIAL SAFETY DATA SHEET

MOTOR SPIRIT

Section 1 – Chemical Product and Company Identification

Chemical Name :	Motor Spirit
Chemical Formula :	Complex mixture of hydrocarbons
CAS Number :	
Synonyms :	Gasoline, Petrol, Gas
General Use :	Motor Fuel



NFPA 704 (Sec 16)

Section 2 – Composition / Information on Ingredients

Composition :	Gasoline	> 97% v
	Benzene	< 1 % v
	MTBE	< 15 % v
	Ethanol	< 5 % v
Hazardous Components :	Benzene, MTBE	
ACIGH TLV TWA :	Gasoline – 300 ppm , Benzene – 0.5 ppm, MTBE – 50 ppm	

Section 3 – Hazards Identification

Primary Entry Routes :	Ingestion, inhalation, skin and eyes
Acute Effects :	Inhalation can cause dizziness, headache and nausea, depresses central nervous system and has an anesthetic effect. Breathing of liquid droplets may lead to chemical pneumonia. Ingestion can lead to nausea, diarrhea and affect central nervous system. Skin irritant. Prolonged contact can result in skin drying and dermatitis. Eye irritant.
Carcinogenicity :	Benzene component is listed as carcinogenic
Chronic Effects :	No data available

Section 4 – First Aid Measures

Eyes :	Flush with water for 15 min. Get medical attention.
Skin :	Wash with warm water & soap.
Inhalation :	Remove to fresh air. Consult a physician if irritation persists.
Ingestion :	Do not induce vomiting. Do not give liquids. Get medical help at once.

Section 5 – Fire Fighting Measures

Flash Point :	< - 10 °C
Flash Point Method :	Abel
Auto ignition Temperature :	250 °C to 280 °C (highly variable)
LEL :	1.4 %
UEL :	7.6 %
Flammability Classification :	Flammable

Extinguishing Media :	Foam, Dry Chemical Powder, CO2
Unusual Fire or Explosion Hazards :	Heat produces vapours and can cause violent rupture of containers. Vapours may travel long distance and can flash back.
Hazardous Combustion Products :	Carbon di oxide, carbon mono oxide, benzene
Fire-Fighting Instructions :	Small fires can be extinguished by hand held extinguishers. Major fires may require withdrawal and allowing the tank to burn. Fire fighters should wear self breathing apparatus while fighting fire

Section 6 – Accidental Release Measures

Small Spills :	Shut off leaks without risk. Absorb on sand or earth.
Containment :	Prevent spillage from entering drains or water sources
Cleanup :	After spills wash area with soap and water preventing runoff from entering drains.

Section 7 – Handling and Storage

Handling Precautions :	Do not use/store near heat/open flame. Avoid contact with liquid or vapours. Use gumboots, gloves while handling the product. Do not inhale. Stay upwind while handling the product. Product should never be used to remove oil or grease from skin. It should not be siphoned by mouth. Tanks and dispensing equipments should be grounded to reduce static charge fires. It should be stored in closed containers away from heat & source of ignition. Avoid contact with skin and eyes. Wash thoroughly after handling
Storage Requirements :	Do not use/store near heat/open flame/water/acids

Section 8 – Exposure Controls / Personal Protection

Engineering Controls :	Provide proper ventilation for environment to be below TWA
Respiratory Protection :	Use respiratory protection if ventilation is improper
Protective Clothing / Equipment :	Use face shield, PVC gloves, safety boots while handling. Contaminated clothing to be immediately removed

Section 9 – Protection Physical and Chemical Properties

Physical State :	Liquid	
Appearance and Odour :	Water white liquid, dyed orange or red Characteristic hydrocarbon like odour	for detection.
Vapor Pressure :	5.0 to 8.7 psi at 38 °C (RVP)	
Specific Gravity :	0.71 to 0.77 gm / cc	
Water Solubility :	Insoluble	
Boiling Point :	35 °C to 215 °C	
Freezing Point :	Data not available	
Vapour Density :	3 to 4 (Air = 1)	

Section 10 – Stability and Reactivity

Stability :	Chemically stable.
Chemical Incompatibilities :	Incompatible with oxidizing agents & chlorine. Reacts vigorously with oxidising materials.
Conditions to Avoid :	Can undergo auto-oxidation in air & generate heat which can build up in a confined space to cause spontaneous combustion
Hazardous Decomposition Products :	Carbon di oxide, carbon mono oxide

Section 11 – Toxicological Information

ACIGH TLV TWA :	Gasoline – 300 ppm , Benzene – 0.5 ppm, MTBE – 50 ppm
Toxicity Data :	LD50 (Oral-Rat) 18.75 ml / kg
Acute Inhalation Effects :	Benzene component is carcinogenic.

Section 12 – Ecological Information

Prevent spillage from entering drains or water sources. After spills wash area with soap and water preventing runoff from entering drains. Can burn with lot of heat producing CO2 and CO.

Section 13 – Disposal Considerations

Disposal: Waste must be disposed of in accordance with federal, state and local environmental control regulations

Section 14 – Transport Information

Shipping Name :	Motor Spirit, Gasoline

Section 15 – Regulatory Information

Non - Toxic/Flammable Substance

Section 16 – Other Information

Motor sprit is highly inflammable and should be used only as fuel. The product is dyed orange or red colour depending on its grade.