MATERIAL SAFETY DATA SHEET

Methanol

Section 1 - Chemical Product and Company Identification

MSDS Name:	**Methanol**
Synonyms:	Methyl alcohol

Company Identification: (INDIA)	DS Global Venture, [Registered office address], INDIA
For information in the INDIA, call:	Tel: +91 98933 53200 Email: [Email address]

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	%	EINECS#
67-56-1	Methanol	99.8%	200-659-6

Hazard Symbols:	T F
	
Risk Phrases:	11 23/24/25 39/23/24/25

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Highly flammable. Toxic by inhalation, in contact with skin and if swallowed. Toxic : danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

Potential Health Effects

Eye:	Produces irritation, characterized by a burning sensation, redness, tearing, inflammation, and possible corneal injury. May cause painful sensitization to light.
Skin:	Causes moderate skin irritation. May be absorbed through the skin in harmful amounts. Prolonged and/or repeated contact may cause defatting of the skin and dermatitis.
Ingestion:	May be fatal or cause blindness if swallowed. Cannot be made non-poisonous. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause systemic toxicity with acidosis. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure. May cause cardiopulmonary system effects.
Inhalation:	May cause adverse central nervous system effects including headache, convulsions, and possible death. May cause visual impairment and possible permanent blindness. Causes irritation of mucous membrane.
Chronic:	Prolonged or repeated skin contact may cause dermatitis. Chronic inhalation and ingestion may cause effects similar to those of acute inhalation and ingestion. Chronic exposure may cause reproductive disorders and teratogenic effects. Laboratory experiments have resulted in mutagenic effects.

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Section 4 - First Aid Measures

Eyes:	Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.
Skin:	Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
Ingestion:	If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately. Wash mouth out with water.
Inhalation:	Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
Notes to Physician:	Effects may be delayed. Ethanol may inhibit methanol metabolism. Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:	Containers can build up pressure if exposed to heat and/or fire. As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Water runoff can cause environmental damage. Dike and collect water used to fight fire. Vapors can travel to a source of ignition and flash back. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Flammable Liquid. Can release vapors that form explosive mixtures at temperatures above the flashpoint. Water may be ineffective. Material is lighter than water and a fire may be spread by the use of water. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas.
Extinguishing Media:	Use water spray to cool fire-exposed containers. Use foam, dry chemical, or carbon dioxide. Use flooding quantities of water as spray.

Section 6 - Accidental Release Measures

General Information:	Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks:	Use water spray to disperse the gas/vapor. Remove all sources of ignition. Absorb spill using an absorbent, non-combustible material such as earth, sand, or vermiculite. Do not use combustible materials such as sawdust. Use a spark-proof tool. Provide ventilation. A vapor suppressing foam may be used to reduce vapors. Water spray may reduce vapor but may not prevent ignition in closed spaces.

Section 7 - Handling and Storage

Handling:	Wash thoroughly after handling. Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep away from heat, sparks and flame. Do not ingest or inhale. Use only in a chemical fume hood. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.
Storage:	Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a cool, dry place. Store in a tightly closed container. Flammables-area.

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Section 8 - Exposure Controls, Personal Protection

Engineering Controls:	
	Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local explosion-proof ventilation to keep airborne levels to acceptable levels.
Exposure Limits	**CAS# 67-56-1:**
	United Kingdom, WEL - TWA: 200 ppm TWA; 266 mg/m3 TWA United Kingdom, WEL - **STEL:** 250 ppm STEL; 333 mg/m3 STEL
	United States OSHA: 200 ppm TWA; 260 mg/m3 TWA
	Belgium-TWA: 200ppm VLE; 266mg/m3 VLE Belgium-STEL: 250ppm VLE; 333 mg/m3 VLE
	France-VME: 200ppm VME; 260mg/m3 VME France-VLE: 1000ppm VLE; 1300mg/m3 VLE
	Germany: 200 ppm TWA; 270 mg/m3 TWA Germany: skin notation
	Japan: 200 ppm OEL; 260 mg/m3 OEL
	Malaysia: 200 ppm TWA; 262 mg/m3 TWA
	Netherlands: 200 ppm MAC; 260 mg/m3 MAC
	Russia: 5 mg/m3 TWA (vapour)
	Spain: 200ppm VLA-ED; 266mg/m3 VLA-ED Spain: 250ppm VLA-EC; 333mg/m3 VLA-EC

Personal Protective Equipment	
Eyes:	Wear chemical splash goggles.
Skin:	Wear appropriate protective gloves to prevent skin exposure.
Clothing:	Wear appropriate protective clothing to prevent skin exposure.
Respirators:	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State:	Clear liquid
Color:	APHA: 10 max
Odor:	alcohol-like
pH:	Not available
Vapor Pressure:	128hPa @20 deg C
Viscosity:	0.55 cP @20 deg C
Boiling Point:	64.7 deg C @760mmHg (148.46°F)
Freezing/Melting Point:	-98 deg C (-144.40°F)
Autoignition Temperature:	455 deg C (851.00 deg F)
Flash Point:	12 deg C (53.60 deg F)
Explosion Limits: Lower:	6 Vol %
Explosion Limits: Upper:	31 Vol %
Decomposition Temperature:	Not available
Solubility in water:	Miscible
Specific Gravity/Density:	0.792 g/cc
Molecular Formula:	CH4O
Molecular Weight:	32.04

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Section 10 - Stability and Reactivity

Chemical Stability:	Stable under normal temperatures and pressures.
Conditions to Avoid:	Incompatible materials, ignition sources, exposure to moist air or water.
Incompatibilities with Other Materials	Oxidizing agents, reducing agents, acids, acid chlorides, alkali metals, magnesium, potassium, sodium, metals as powders (e.g. hafnium, raney nickel), and acid anhydrides.
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide, formaldehyde.
Hazardous Polymerization	Will not occur.

Section 11 - Toxicological Information

RTECS#:	CAS# 67-56-1: PC1400000
LD50/LC50:	RTECS: **CAS# 67-56-1:** Draize test, rabbit, eye: 40 mg Moderate; Draize test, rabbit, eye: 100 mg/24H Moderate; Draize test, rabbit, skin: 20 mg/24H Moderate; Inhalation, rabbit: LC50 = 81000 mg/m3/14H; Inhalation, rat: LC50 = 64000 ppm/4H; Oral, mouse: LD50 = 7300 mg/kg; Oral, rabbit: LD50 = 14200 mg/kg; Oral, rat: LD50 = 5600 mg/kg; Skin, rabbit: LD50 = 15800 mg/kg;
Carcinogenicity:	Methanol - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Other:	See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Other:	Avoid entering into waters or underground water. Do not empty into drains.

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

	IATA	IMO	RID/ADR
Shipping Name:	METHANOL	METHANOL	METHANOL
Hazard Class:	3 (6.1)	3 (6.1)	3 (6.1)
UN Number:	1230	1230	1230
Packing Group:	II	II	II

USA RQ: CAS# 67-56-1: 5000 lb final RQ; 2270 kg final RQ

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Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: T F

Risk Phrases:

- R 11 Highly flammable.
- R 23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
- R 39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

Safety Phrases:

- S 7 Keep container tightly closed.
- S 16 Keep away from sources of ignition - No smoking.
- S 36/37 Wear suitable protective clothing and gloves.
- S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

- CAS# 67-56-1: 1

Canada

- CAS# 67-56-1 is listed on Canada's DSL List

US Federal

- TSCA
- CAS# 67-56-1 is listed on the TSCA Inventory.

Section 16 - Other Information

MSDS Creation Date:	July 22, 2015
Revision #0 Date	

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