

GIBSON ENERGY ULC
MATERIAL SAFETY DATA SHEET
GIBSON CLEAR PRO 100



1. PRODUCT INFORMATION

NAME: GIBSON CLEAR PRO100

SYNONYMS: Condensate, Diluent, Solvent.

APPLICATIONS AND USE: Refinery/Chemical feedstock or diluent to reduce the viscosity of heavier crude oils. GIBSON CLEAR PRO 100 can be used for removing paraffin and asphaltene deposition.

PRODUCT DESCRIPTION: A complex combination of hydrocarbons separated from natural gas (usually at the wellhead) and containing carbon numbers in the range C2 to C20. The mixture is a liquid at normal atmospheric conditions. Sulphur content greater than 0.5 is considered sour.

REGULATORY CLASSIFICATION:

WHMIS: Class B, Division 2: Flammable Liquid
Class D, Division 2, Subdivision A: Very Toxic Material

TRANSPORTATION OF DANGEROUS GOODS INFORMATION: (CAN)

Shipping Name: Petroleum Products, NOS
Primary TDG: 3
Secondary TDG: None
P.I.N.: UN1268
Packing Group: I or II
Guide Number: 128

EMERGENCY TELEPHONE NUMBERS:

Name of MFG/SUPPLIER:

Gibson Energy ULC
1700, 440 – 2nd Ave. SW
Calgary, Alberta T2P 5E9

(403) 206-4000
Canutec (613) 993-6666 or Cellular *666

2. HAZARDOUS INGREDIENTS

The following components are defined in accordance with subparagraph 13(a), (l) to (iv) or paragraph 14(a) of the Hazardous Product Act.

<u>Component</u>	<u>%</u>	<u>CAS #</u>
Hydrocarbons (aromatic and paraffinic hydrocarbons)	100	8002-05-9
Benzene	0 – 5% vol.	71-43-2
Toluene	0 – 5% vol.	108-88-03
Xylene	0 – 5% vol.	1330-20-7

3. TYPICAL PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid
DENSITY: 0.7 to 0.78 g/cc
RELATIVE DENSITY: 0.7 – 0.78
VAPOUR DENSITY: 2.5 (air=1) @ 30° C
BOILING POINT/RANGE: -80° C to 350° C
SOLUBILITY IN WATER: Insoluble
VAPOUR PRESSURE: 10 to 60 kPa.(a)
APPEARANCE /ODOUR: A clear liquid (colourless to cola tint).
Odour varies from mild pleasant hydrocarbon odour to mild "rotten egg" odour.
ODOUR THRESHOLD: Not available
EVAPORATION RATE: Not available
FREEZING/MELTING PT.: <-60° C (pour point)
VISCOSITY: <1 centistokes @ 0° C
pH: Not available
CO-EFFICIENT OF WATER
OIL DISTRIBUTION: < 1 Product essentially insoluble in water

4. HEALTH HAZARD INFORMATION

NATURE OF HAZARD

INHALATION: High vapour concentrations are irritating to the eyes, nose, throat and lungs, may cause headaches and dizziness, may be anaesthetic and may cause other central nervous system effects.

Causes suffocation (asphyxiate) if allowed to accumulate to concentrations that reduce oxygen below safe breathing levels.

Avoid breathing vapours or mists.

EYE CONTACT: Irritating but will not injure eye tissue.

SKIN CONTACT: Low toxicity. Frequent or prolonged contact may irritate the skin and cause a rash (dermatitis).

INGESTION: Minimal toxicity.

Small amounts of this liquid drawn into the lungs from swallowing or vomiting may cause severe health effects (e.g. bronchopneumonia or pulmonary edema).

CHRONIC EFFECTS: May contain n-hexane. Prolonged and repeated exposures may cause damage to the peripheral nervous system (e.g. fingers, feet, arms, etc.)

Contains benzene. Human health studies (epidemiology) indicate that prolonged and/or repeated overexposure to benzene may cause damage to the blood producing system and serious blood disorders, including leukemia.

TOXICITY DATA: Not available.

OCCUPATIONAL EXPOSURE LIMITS (OEL's) RECOMMENDED:

Medical Division Recommends: ACGI H

<u>TWA Exposure Limits (ppm)</u>	<u>8Hr</u>	<u>15 Min</u>
Benzene:	5	3
Toluene	50	
Xylene	100	150

For total organic vapour, 100 ppm recommended based on naphtha
For Hydrogen Sulphide, 10 ppm (14 mg/m³)
ACGI H Recommends:
For n-Hexane, 50 ppm (180 mg/m³)

5. FIRST AID MEASURES

INHALATION: In emergency situations use proper respiratory protection to immediately remove the affected victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest. Call for prompt medical attention.

EYE CONTACT: Flush eyes with large amounts of water until irritation subsides. If irritation persists, get medical attention.

SKIN CONTACT: Flush with large amounts of water. Use soap if available. Remove severely contaminated clothing (including shoes) and launder before reuse.

INGESTION: DO NOT induce vomiting since it is important that no amount of material should enter the lungs (aspiration). Keep at rest. Get prompt medical attention.

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6. PREVENTATIVE AND CORRECTIVE MEASURES

SPECIAL PROTECTION INFORMATION:

The selection of personal protective equipment varies, depending upon conditions of use.

Where concentrations in air may exceed the occupational exposure limits given in Section 4 and where engineering, work practices or other means of exposure reduction are not adequate, approved respirators may be necessary to prevent overexposure by inhalation.

Where eye contact is unlikely, but may occur as a result of short and/or periodic exposures, wear safety glasses with side shields, long sleeves, and chemical resistant gloves.

ENGINEERING CONTROLS:

The use of local exhaust ventilation is recommended to control emissions near the source. Laboratory samples should be handled in a fume hood. Provide mechanical ventilation in confined spaces. Use explosion-proof equipment.

HANDLING, STORAGE AND SHIPPING:

Keep containers closed. Handle and open containers with care. Store in a cool, well ventilated place away from incompatible materials. Empty containers may contain product residue. Do not pressurize, cut, heat or weld empty containers. Do not reuse empty containers without commercial cleaning or reconditioning. Do not handle or store near an open flame, source of heat or source of ignition.

Material will accumulate static charges, which may cause a spark. Static charge build-up could become an ignition source. Use proper grounding procedure. Store and load at normal (up to 38°C) temperature and at atmospheric pressure.

LAND SPILL:

Eliminate source of ignition. Keep public away. Prevent additional discharge of material, if possible to do so without hazard. Vapours or mists may be harmful or fatal. Warn occupants in downwind areas. Prevent spills from entering sewers, watercourses or low areas. Contain spilled liquid with sand or earth. Do not use combustible materials such as sawdust. Recover by pumping (use an explosion-proof motor or hand pump) or by using a suitable absorbent.

SPILL CONTROL AND DISPOSAL:

Consult an expert on disposal of recovered material. Ensure disposal is in compliance with government requirements and ensure conformity to local disposal regulations. Notify the appropriate authority immediately. Take all additional action necessary to prevent and remedy the adverse effects of the spill.

WATER SPILL:

Prevent additional discharge of material, if possible to do so without hazard. Attempt to contain floating material. Eliminate all sources of ignition. Vapours or dust may be harmful or fatal. Warn occupants and shipping in downwind areas. Remove from surface by skimming or with suitable absorbents. If allowed by local authorities and environmental agencies, sinking and/or suitable dispersants may be used in unconfined waters.

7. FIRE AND EXPLOSION HAZARD:

Flash-point < 5° C (CC)
Auto-ignition: > 400° C Estimated
Flammable Limits (% volume): Approximately 15

Extremely flammable; material will readily ignite at normal Toxic gas form.

FIREFIGHTING:

Use water spray to cool fire exposed surfaces and to protect personnel. Shut off fuel to fire if possible to do so without hazard. If a leak or spill has not ignited, use water spray to disperse the vapours. Either allow fire to burn out under controlled conditions or extinguish with foam or dry chemical. Try to cover liquid spills with foam.

Respiratory and eye protection required for fire fighting personnel.

A self-contained breathing apparatus (SCBA) should be used for all indoor fires and any significant outdoor fires. For small outdoor fires, which may easily be extinguished with a portable fire extinguisher, use of a SCBA may not be required.

HAZARDOUS COMBUSTION PRODUCTS:

Oxides of Carbon, Sulphur

8. REACTIVITY DATA

This product is stable. Hazardous polymerization will not occur.

INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID:

Heat, ignition sources, oxidizing agents.

9. NOTES

10. PREPARATION INFORMATION

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