

ACETYLENE

TYPICAL PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Colorless gas

ODOUR: Garlic - like

SOLUBILITY: Slightly soluble

VAPOUR

DENSITY: Will sink to ground levels

FLASH POINT: -18EC

FREEZING PT: -82EC

VISCOSITY n/a

SPECIFIC

GRAVITY: (0.6) Liquid floats on water

SAFETY MEASURES

WARNINGS

- Vapors form instantaneously, and are heavier than air.
- Empty containers can contain explosive vapors.
- Vapors can travel to distant sources of ignition and flash back.
- Eye contact causes irritation.
- Material can accumulate static charges.
- Inhalation of vapors can cause irritation of the respiratory tract, headache, vomiting, and unconsciousness.

PERSONAL PROTECTION

- Always wear impervious, chemical-resistant clothing, gloves, footwear, and goggles; nitrile and Viton are suitable protective materials (**DO NOT USE NATURAL RUBBER, NEOPRENE, OR PVC**).
- Wear full-face organic vapor cartridge respirator where oxygen is adequate, otherwise wear positive pressure SCBA.

PRECAUTIONS

- Monitor for explosive atmosphere.
- Avoid contact with strong oxidizers, such as nitric acid, sulphuric acid, chlorine, ozones, peroxides.
- Eliminate ignition sources.
- Restrict access and work upwind of spill.

RESPONSE TO FIRES

CONSIDER ACTION ONLY IF SAFETY PERMITS!

- Wear SCBA in confined areas.
- Shut off fuel supply.
- Extinguish fire with CO₂, dry chemical, alcohol foam or water fog.
- Use water to cool containers exposed to fire.

RESPONSE TO GAS RELEASES

CONSIDER ACTION ONLY IF SAFETY PERMITS!

ON LAND

- **ELIMINATE IGNITION SOURCES.**
- **DO NOT ATTEMPT TO CONTAIN OR REMOVE RELEASES**

ON WATER

- **ELIMINATE IGNITION SOURCES.**
- **DO NOT ATTEMPT TO CONTAIN OR REMOVE RELEASES**

STORAGE & TRANSFER

- Store closed, labelled containers in cool, ventilated areas away from incompatible materials
- Electrically ground containers & vehicles during transfer.

DISPOSAL

- Consult with environmental authorities if the disposal of any contaminated materials is required.

FIRST AID

EYES

- Flush eyes immediately with fresh, warm water (NOT HOT WATER) for 20 minutes while holding the eyelids open.
- Remove contact lenses, if exposed to vapors or liquid.
- Get prompt medical attention.

SKIN

- Remove and launder contaminated clothing.
- Wash skin thoroughly with soap and water.
- Get medical attention.
- Discard saturated leather articles.

INHALATION

- Move victim to fresh air.
- Perform artificial respiration if victim not breathing.
- Provide oxygen if victim is having difficulty breathing.
- Get prompt medical attention.

INGESTION

- **DO NOT INDUCE VOMITING;** if victim is conscious; give milk or water to drink. If vomiting begins, keep victim's head below hips to prevent aspiration.
- Get prompt medical attention.

APPENDIX B

RESPONSE EQUIPMENT INVENTORY

During the exploration phase of the project, spills occurring along the transportation route will be remedied by the appropriate personnel depending on the party responsible for the spill, the location of the spill, and the extend of the environmental threat. Larger spills will involve the coordination of CMF personnel (including the Emergency Response Team), contractors, and CMF Mutual Aid Partners. For the purposes of listing response equipment, the equipment will be listed by contractor and site.

Mobile Equipment

From **M and T Enterprises (867 645 2778)**

Equipment located in Rankin Inlet that can be used for spill countermeasures includes:

- 1 740 Champion grader
- 1 BW 75 compactor
- 1 Cat 950 loader
- 1 Cat 966 loader
- 1 Cat D5 dozer
- 1 Cat D6D dozer
- 9 tandem dump trucks
- 1 trash pump
- 1 backhoe
- 1 tractor and end dump
- 1 Cat 966 loader
- 1 Cat D3 dozer
- 1 Cat D6E dozer
- 1 Cat D8K dozer
- 1 5000 gal. skid mounted storage tank

From **Nunavut Power Corporation (645 5300)**

Spill equipment available:

- fuel sorbent material
- pumps and hoses
- night operating equipment (portable generator light stand and cords)
- winter clean up equipment (chain saw)
- hand tools (shovels, rakes, wrenches)
- safety equipment

From **Municipality of Rankin Inlet (645 2525)** contact **Fire Department (645 2895)**

Heavy Equipment available:

- portable lighting
- dump truck
- bull dozer
- snow plow
- fire truck.
- front end loader
- backhoe
- grader
- vacuum truck

Mutual Aid Partners

In the event of a major spill requiring additional resources, equipment and manpower will be made available through mutual aid agreements with the Canadian Coast Guard Emergency Response Officer (1 867 874 5559), the Hamlet of Rankin Inlet (1 867 645 2525) and the Nunavut Power Corporation (1 867 645 5300).

Canadian Coast Guard (CCG) - Rankin Inlet Inventory

Material from the CCG inventory at Rankin INLET is available on a cost recovery basis and will be made available on request to the Nunavut EMO representative who will be billed by CCG for materials consumed and who will then recover costs from CMF accordingly.

- 1500' X 24" oil containment boom
- 6 boom towing devices
- 6 5/8" tow lines X 100' c/w snap hooks
- 6 anchoring devices
- 6 Danforth anchors (22 lbs)
- 6 3/8" X 75' trip lines
- 6 trip line marker buoys type mb40
- 8 bales disposable boom (8" X 10' X 4 lengths per bale)
- 9 bales sorbent pads (18" X 18" X 3/8" X 100 pads)
- 10 sorbent rolls (36" X 150' X 3/8")
- 5 boxes of oil snare
- 2 1000 gal. portatanks
- 1 Spate pump
- 2 lengths 3" oil resistant suction hose - 50' each.
- 2 lengths oil resistant discharge hose - 50' each.
- 1 TDS-118 light medium oil skimmer c/w diesel power pack
- 1 spare parts kit for TDS-118 skimmer
- 1 4Kva diesel generator
- 1 16' aluminum boat
- 1 25 hp outboard motor
- 2 3000 psi portable high pressure washer
- 2 sets portable lights (each set has 3 X 500 watt halogen lamps, spare bulbs, 100" ext. cord and carrying case)
- 2 coils 1/4" polypropylene rope (1200')
- 2 coils 1/2" polypropylene rope (600')
- 2 coils 5/8" polypropylene rope (600')
- 72 pair disposable coveralls
- 120 pair work gloves
- 12 hard hat liners
- 40 dust / mist disposable masks
- 40 pairs assorted rain gear
- 20 pair safety glasses
- 20 safety vests
- 20 pair sunglasses
- 2 20' steel ISO containers
- 1 tool box

[illegible]

FUEL STORAGE MONITORING PLAN

The fuel storage monitoring plan will consist of the following daily and weekly inspections conducted by CMF personnel that have been trained in the use of fuel pumping equipment and fuel spill response.

The following inspections will be conducted and recorded on a daily basis:

1. All tanks, lines, pumps, hoses, valves and fittings will be inspected for leaks or damage.
2. Ensure proper fuel only is dispensed into the correct tanks and barrels for use in the camp and associated exploration work.
3. Ensure that the "No Smoking" signs posted in the area of the fuel tanks are always clearly visible.
4. Ensure that all personnel on site abide by the "No Smoking" rule within the distances outlined in the regulations for fuel tanks.
5. Ensure all spill response equipment and PPE (Personal Protection Equipment) is clearly visible and easily accessed.
6. Fuel levels in all primary tanks checked and compared against the fuel dispensed from each primary tank for each week.
7. Outer tanks checked for fuel leakage from the primary tank.
8. Spill response equipment checked.
9. PPE checked.

Appendix E

Basic Contents of Fuel Spill Response Kit

1. Absorbent pads or sheets, socks, and granular material
2. Disposable protective gloves
3. Disposable protective coveralls.
4. Sorbent containment and disposal bags