INUVIALUIT SIVUNNIUQPAIT IMAKKUN

INUVIALUIT WATER BOARD



**Hamlet of** Sachs Harbour

**Water Licence Number:** N7L3 -1531

# Spill Contingency Plan

**Date Prepared:** February 17, 2021

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**LIST OF APPENDICES**

## 1. Introduction

Name of the Hamlet: Hamlet of Sachs Harbour

Location of Hamlet - latitude and longitude in Degrees, Minutes and Seconds (DMS):

Latitude: 71° 59' 6.86" N

Longitude: 125° 14' 54.12" W

Present Population of the Hamlet: 105

Climate (a brief note such as mean July and January temperature)

Sachs Harbour lies well within the zone of continuous permafrost. The mean annual air temperature is -12.8°C. The climate is cold and dry, with February and July mean temperatures of -28.3°C and 6.6°C respectively. Total annual precipitation is 151 mm. Snowfall averages 97.7 mm per year, while rainfall accounts for 58.3 mm of total precipitation.

Attach a Map of the Hamlet

☑ **Hamlet Map Attached in Appendix 1**

## 2. Site & Systems Description

Which facilities do these plans cover? Include only facilities where the community would be responsible for responding to a spill. (**Check all that apply.**)

☑ Water Treatment Plant (WTP)

☑ Solid Waste Disposal Facilities (SWDF)

☑ Sewage Waste Disposal Facilities (SWF), specify the type:

◉ Natural Lake Lagoon ○ Engineered Lagoon ○ Exfiltration System ○ Mechanical Plant

☐ Bulk Fuel Storage Facility

☑ Community Garage

☐ Swimming Pool

☐ Land farm at separate location from Solid Waste Disposal Facilities

Other (specify):

Briefly describe sites including size, location (Latitude and Longitude in Degrees, Minutes and Seconds), topography, buildings and infrastructures, potentially impacted communities, traditional use areas, other development and environmentally sensitive areas, resource harvesting areas, fish spawning areas, waterfowl habitat, animal migration routes, beaches, archaeological and historic sites, public and private water supplies:

Spill areas that can be potentially impacted are shown on Appendix 2. The areas that can be potentially impacted are surrounding the drinking water plant, lagoon, and solid waste facilities which are approximately 1.7 km, 3.2 km, and 7.8 km respectively from the community, the only other foreseeable possible spill location is the maintenance garage.

The following is a list of special places that will receive additional consideration should a spill occur in these areas:
· Water Lake – the community's drinking water source
· Bodies of water within the community are the surrounding ocean.

Attach a map showing the location of each facility (multiple facilities can be shown on one map, or use separate maps if more than one is required), buildings, roads, culverts, airstrips and other infrastructure, all surface water bodies and direction of water flow, probable spill locations and direction of flow on land and in water, locations of all response equipment, location of spill kits, environmentally sensitive areas, any approved disposal sites and any other important on or off site features.

Include any additional community fuel storage locations, such as an airport fuel facility.

Show the municipal boundaries on each map. Show the location of fuel and other hazardous materials stored at each site.

If applicable, show the location of the fuel and pump for a seasonal reservoir fill.

☑ **Map(s) Attached showing above features in Appendix 2**

## 3. Effective Date of Spill Contingency Plan

Spill Contingency Plan effective date: February 17, 2021

This Spill Contingency Plan is effective from the date shown above until such time that an updated spill contingency plan is in place. Updated plans should include a list of all revision dates and a brief summary of the changes made to the plan. In the event of a spill during a period of review, this plan shall take precedence. This plan applies to all operations and activities conducted within the municipal boundaries of Sachs Harbour

This Spill Contingency Plan was developed to comply with the Environmental Protection Act. R.R.N.W.T. 1990, c and Waters Regulations (WR) section 5 (2)(g): an application shall include "if the undertaking involves the handling or storage of petroleum products or hazardous materials, (i) a plan for the safe handling, storage and disposal, and (ii) a contingency plan for the containment and clean-up of those products and materials in the event of a spill".

## 4. Revisions of Spill Contingency Plan

The Spill Contingency Plan should be updated annually, at a minimum, to reflect changes such as fuel storage locations, new hazardous materials on site, new construction and new personnel and contact information.

Use the following table to record a summary of revisions each year. Add new pages as required.

| Date of Revision (dd/mm/yyyy) | Title, Section Number, or Page Number of Revised Sections | Summary of Changes |
|---|---|---|
| 17/02/2021 | Page 3 -Section 1 and Appendices 2 & 5 | Map of the hamlet added on the section 1, Appendices 2 & 5 include the hamlet features map and Material Safety Data Sheet (MSDS). |
| 17/02/2021 | Page 6, Section 6 | Contact information of the hamlet staffs e.g. SAO, Foreman |
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## 5. Purpose of Spill Contingency Plan

The purpose of this plan is to outline response actions for potential spills of any size, including a worst case scenario, for the Hamlet of Sachs Harbour The plan identifies key response personnel and their roles and responsibilities in the event of a spill, as well as the equipment and other resources available to respond to a spill. It details spill response procedures that will minimize potential health and safety hazards, environmental damage, and clean-up efforts. The plan has been prepared to ensure quick access to all the information required in responding to a spill.

The policy of the Hamlet of Sachs Harbour is:

- To comply with existing regulations;
- To provide such protection of the environment as it is technically feasible and economically Practical;
- To cooperate with other groups on the protection of the environment; and
- To keep employees, government officials, and the general public informed.

## 6. Contact Information & Responsibilities

An immediately reportable spill is defined as a release of a substance that is likely to be an imminent environmental or human health hazard or meets or exceeds the volumes shown in the attached table (Appendix 3). These spills must be reported to the NWT 24-hour Spill Report Line at (867) 920-8130.

**NWT 24-Hour Spill Line: 867-920-8130**

Contact information for spill response personnel. Where possible, provide additional phone numbers to ensure contacts can be reached 24 hours a day in the event of a spill.

| Name | Position | Phone | Second Phone |
|---|---|---|---|
| Betty Haogak | SAO | 867-690-4351 | 867-786-0133 |
| John Elanik | Foreman | 867-690-4351 | 867-786-0132 |
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Additional copies of the Spill Contingency Plan may be obtained by contacting:

| | |
|---|---|
| **Name:** | Betty Haogak |
| **Position:** | SAO |
| **Phone:** | 867-690-4351 |
| **Email:** | hamlet_ceo@northwestel.net |
| **Fax:** | 867-690-4803 |

Media inquiries should be directed to:

| | |
|---|---|
| **Name:** | Betty Haogak |
| **Position:** | SAO |
| **Phone:** | 867-690-4351 |
| **Email:** | hamlet_ceo@northwestel.net |
| **Fax:** | 867-690-4803 |

Responsible personnel for activating the Spill Contingency Plan at each facility in the event of a spill:

| Facilities | Name | Job Title | 24-hour telephone number(s) |
|---|---|---|---|
| Water Treatment Plant | Betty Haogak | SAO | 867-786-0133 |
| Sewage Waste Disposal Facilities | Betty Haogak | SAO | 867-786-0133 |
| Solid Waste Disposal Facilities | Betty Haogak | SAO | 867-786-0133 |

| | | | |
|---|---|---|---|
| Bulk Fuel Storage Facility | Angella Keogak | Ikahuk Manager | 867-690-4222 |
| Community Garage | John Elanik | Foreman | 867-786-0132 |
| Other (specify) | | | |

## 7. Off-Site Resources

Off-site resources for assistance in the event of a spill are listed below.
Assistance from outside the community may not be able to reach the site until at least the next business day.

| Organization | Contact Phone |
|---|---|
| NWT 24-Hour spill line | 867-920-8130 |
| GNWT Environmental Protection Division | 867- 873-7654 |
| ENR Inspector, Inuvik Region | 867-678-6676 (office)<br>867-678-0623 (Cell) |
| Environment Canada (Emergency), Yellowknife | 867- 669-4725 |
| Department of Fisheries and Oceans, Inuvik Region | 867-777-7500 |
| NWT Emergency Measures Office | 867-920-2303 |
| Inuvialuit Land Administration, Tuktoyaktuk | 867-977-7100 |
| RCMP, Yellowknife | 867- 669-1111 |
| Environmental Health, Inuvik | 867-777-4840/4841 |
| Tele-Care NWT Health Line | 888-255-1010 |
| NWT Fire Marshal Office, Emergency Number | 867-920-2303 |
| NWT Emergency Services Division MACA, 24 h – Emergency line | 867-873-7554 |
| Other (Specify): | |
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**8. Emergency Phone & Radio Locations**

Where are Emergency telephones and/or radios located?

- ☐ Water Treatment Plant
- ☐ Sewage Waste Disposal Facilities
- ☐ Solid Waste Disposal Facilities
- ☐ Bulk Fuel Storage Facility
- ☐ Community Garage
- ☑ Community's main office
- ☑ Other (specify): On person with cell phones and Hamlet Office

**9. Storage & Distribution of Spill Contingency Plan**

A copy of this Spill Contingency Plan should be kept on site at each facility at all times and at the Community's main office. Indicate which locations have a copy of the Spill Contingency Plan (check all that apply):

- ☑ Water Treatment Plant
- ☐ Sewage Waste Disposal Facilities
- ☐ Solid Waste Disposal Facilities
- ☐ Bulk Fuel Storage Facility
- ☑ Community Garage
- ☑ Community's main office
- ☐ Other (specify):

Formal distribution of the Spill Contingency Plan has been made to the following offices:

| Organization | Address and Contact |
|---|---|
| Inuvialuit Water Board | Inuvialuit Water Board<br>P.O. Box 2531<br>151 Mackenzie Road<br>Mack Travel Building, 2nd Floor<br>Inuvik, NT X0E 0T0<br>Phone: 867-678-2942<br>Fax: 867-678-2943 |
| Municipal and Community Affairs (MACA) Inuvik Regional Office | MACA Inuvik Regional Office<br>Bag Service No. 1<br>43 Distributor Street<br>Inuvik, NT X0E 0T0<br>Phone: 867-777- 7121<br>Fax: 867-777-7352<br>Toll-Free Number: 1-877-777-3322 |
| Beaufort Delta Region Infrastructure (INF) - Inuvik Regional Office | INF Inuvik Regional Office<br>Bag Service 1<br>Inuvik, NT X0E 0T0<br>Phone: 867-777-7146<br>Fax: 867-777-3463 |
| Beaufort-Delta Health and Social Services Authority | Beaufort-Delta Health and Social Services Authority<br>Bag Service #2<br>285 - 289 Mackenzie Road<br>Inuvik, NT X0E 0T0<br>Phone: 867-777-8000 |
| Environment and Natural Resources, Inuvik Region | Inuvik Regional Office<br>Environment and Natural Resources<br>PO Box 2749<br>Shell Lake<br>Inuvik, NT X0E 0T0<br>Phone: 867-678-6650<br>Fax: 867-678-6659 |
| Other (Specify): | |
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## 10. Community Environmental Policy

The Hamlet of Sachs Harbour is committed to operating in an environmentally sensitive manner and complying with requirements of the Water Licence N7L3-1531 and other Federal, Territorial and Municipal Acts and Regulations.

## 11. Potential Spill Materials Inventory

In this section, you will create a Potential Spill Materials Inventory by listing the hazardous materials stored at each site that could lead to a spill.

The following tables list hazardous materials on-site for each facility that may pose a spill risk, the type of storage container, the average and maximum quantities stored and their storage location. Tables are provided for the most common facilities. Use the two "Other Location" tables at the end of the section to add additional facilities such as a community pool, landfarm (that is not part of the Solid Waste Disposal Facilities), or other facilities with chemical storage. Do not include sewage or fuel tanks installed at individual buildings or households.

Materials commonly found at each type of facility have been listed as a starting point. Skip any materials that are not used at your facility. Add any additional materials at the end of the list for each facility

**Water Treatment Plant** (Do not list small quantities of reagents or calibration standards used for in-plant water testing.)

| **Material** | **Type of Storage Container** | **Quantity Normally Onsite (kg or $m^3$ or L or drums or gallons)** | **Maximum Quantity Onsite (kg or $m^3$ or L or drums or gallons)** | **Storage Location and Uses** |
|---|---|---|---|---|
| Sodium Hypochlorite (liquid) and/or household bleach | Pails | 8 x 20L pail | 12 x 20L | Water Treatment Plant, Gagare |
| Sodium Hypochlorite (powder) | | | | |
| Sodium Hydroxide (Caustic Soda) | | | | |
| Vita-D-Chlor (Ascorbic Acid) | | | | |
| Diesel or heating fuel | Fuel Tank | 1000L | 1000L | Outside building used for heating |
| Aluminium sulfate or alum | | | | |
| Coagulant-aid polymer | | | | |
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**Sewage Waste Disposal Facilities**

| Material | Type of Storage Container | Quantity Normally Onsite (kg or $m^3$ or L or drums or gallons) | Maximum Quantity Onsite (kg or $m^3$ or L or drums or gallons) | Storage Location and Uses |
|---|---|---|---|---|
| Sewage | Lagoon | 5,200,000L (Approx) | 5,200,000L (Approx) | 71°59'42.36"N 125°19'25.11"W |
| Diesel or heating fuel | | | | |
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**Solid Waste Disposal Facilities** (For additional information on the hazardous waste materials listed in this section, please refer to the "Hazardous waste information" pages appended to this document.)

| Material | Type of Storage Container | Quantity Normally Onsite (kg or $m^3$ or L or drums or gallons) | Maximum Quantity Onsite (kg or $m^3$ or L or drums or gallons) | Storage Location and Uses |
|---|---|---|---|---|
| Diesel or heating fuel | None | | | |

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|---|---|---|---|---|
| Household Hazardous Waste | | | | |
| Asbestos | None | | | |
| Lead-acid Batteries | | | | |
| Antifreeze or glycol | | | | |
| Hydrocarbon Contaminated soil, snow, or water | | | | |
| Mercury | | | | |
| Oily Debris | | | | |
| Halocarbons or Refrigerants | | | | |
| Paint | | | | |
| Propane Tanks | | | | |
| Residue Fuel Tanks, Heating Oil Tanks, Drums | | | | |
| Used oil | | | | |
| Waste fuel | | | | |
| Vehicles | | | | |
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**Bulk Fuel Storage Facility** (If the community has additional fuel storage at the airport or elsewhere, add additional lines for the second location. For example, if you have diesel stored at two separate facilities, you will have two lines in the table for diesel.)

| **Material** | **Type of Storage Container** | **Quantity Normally Onsite (kg or $m^3$ or L or drums or gallons)** | **Maximum Quantity Onsite (kg or $m^3$ or L or drums or gallons)** | **Storage Location and Uses** |
|---|---|---|---|---|
| Gasoline | | | | |
| Diesel or Low Sulphur Diesel Light (LSDL) fuel | | | | |
| Jet-A | | | | |
| Propane | | | | |
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**Community Garage**

| Material | Type of Storage Container | Quantity Normally Onsite (kg or $m^3$ or L or drums or gallons) | Maximum Quantity Onsite (kg or $m^3$ or L or drums or gallons) | Storage Location and Uses |
|---|---|---|---|---|
| Diesel or heating fuel | Fuel Tank | 2000L | 2000L | Outside building Heating fuel |
| Glycol or antifreeze | 4L Pail | 50 | 50 | Locked in Cold Storage |
| Engine oil | 20L Pail | 80 Pails | 80 Pails | Sea-Can |
| Transmission fluid | 20L Pail | 10 Pails | 15 Pails | Sea-Can |
| Brake fluid | 1L Containers | 15 Containers | 15 Containers | Locked Cabinet |
| Hydraulic Fluid | 20L Pail | 50 Pails | 50 Pails | Sea-Can |
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**Other Location 1 (specify):**

| Material | Type of Storage Container | Quantity Normally Onsite (kg or $m^3$ or L or drums or gallons) | Maximum Quantity Onsite (kg or $m^3$ or L or drums or gallons) | Storage Location and Uses |
|---|---|---|---|---|
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**Other Location 2 (specify):**

| Material | Type of Storage Container | Quantity Normally Onsite (kg or $m^3$ or L or drums or gallons) | Maximum Quantity Onsite (kg or $m^3$ or L or drums or gallons) | Storage Location and Uses |
|---|---|---|---|---|
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**12. Spill Preventive Measures**

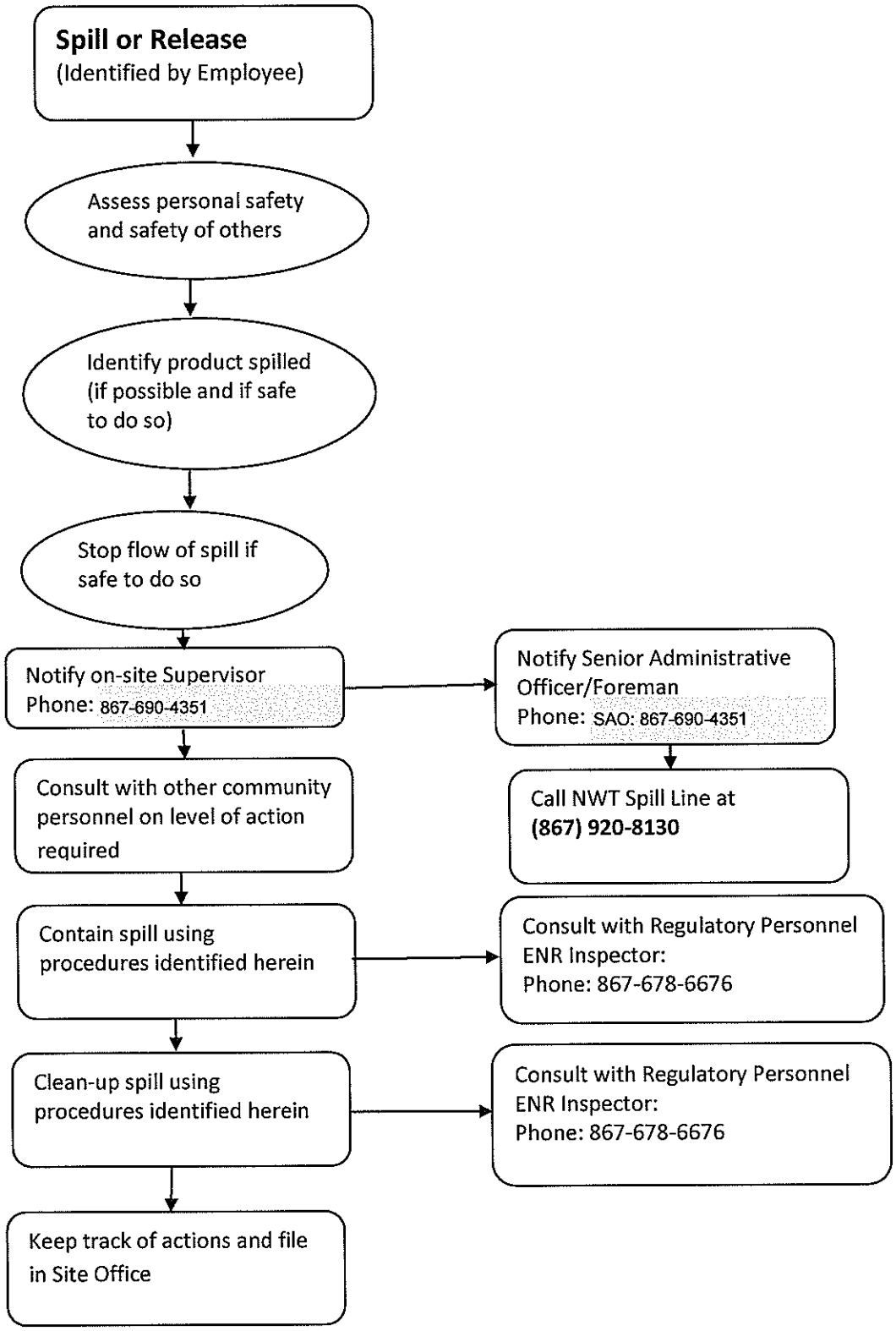
The community is concerned about the environment and the possibility of a spill; therefore, precautions should be taken when working with hazardous materials. In order to prevent spill occurrences, the Hamlet should take the following spill prevention measures and general precautions at the various facilities:

- Operators should be trained in safe handling and disposal procedures;
- Operators should ensure that the collection trucks are not filled beyond capacity;
- Truck and equipment inspections should be performed on a regular basis;
- Leaks checks should be performed for motorized vehicles and other equipment on a regular basis;
- Berms and containment measures should be inspected regularly on a scheduled basis;
- Secondary containment measures should be in place at required locations;
- Personal protective equipment (PPE) should be worn at all times when handling hazardous waste;
- Material Safety Data Sheet (MSDS) should be readily available for all hazardous waste present on-site;
- Spill kits should be readily available for all spill types;
- Schedules for the various inspections should be prepared and followed by appropriate personnel; and
- Inspection checklists should be prepared and followed by appropriate personnel.

## 13. Response Flowchart

The flow chart identifies the response organization and the chain of command for responding to a spill or release.

**Response Flowchart**



## 14. Action Plan

### Reservoir Fill Operation and Flammable Liquids

Is there a seasonally-filled water reservoir in the community?

○ Yes ◉ No

If yes, which fuels, oils and chemicals are used in the filling operation? Indicate the maximum quantity stored on or adjacent to the ice, in Litres. (If no, skip this section.)

| | |
|---|---|
| Diesel Fuel ☐ | Max quantity on ice: Litres |
| Engine Oil ☐ | Max quantity: Litres |
| Gasoline ☐ | Max quantity: Litres |
| Antifreeze ☐ | Max quantity: Litres |
| Automatic Transmission Fluid ☐ | Max quantity: Litres |
| Other (Specify): | Max quantity: Litres |

Where is the reservoir refill pump located?

Distance from reservoir: m

Direction from reservoir: of reservoir

Hamlet of ---------- currently conducts seasonal reservoir fills. The location of the reservoir refill pump is approximately m Of the reservoir. The quantity of fuel on the ice at any one time shall be limited to 205 litres in the pumps fuel tank and fuel that is in a mobile tidy tank that will only be on the ice during refueling. Fuel will be transferred from a tidy tank that is situated in the back of a truck into the tank required to operate the pump as required.

During seasonal pumping operations, the fluids listed above will be stored in close proximity to the Mackenzie River. No storage or staging of fluids other than those listed above is a part of the operation; the amount of fuel on the ice at any given time will be minimized. This will significantly reduce the size of a potential spill. All other flammable liquid spills within municipal boundaries and of municipal responsibility will be dealt with in the same manner.

Defensive Position- Reservoir Fill Operation Only

- Retain Sufficient Spill Recovery supplies onsite during pumping operations.
- Train on site personnel in spill containment and clean up.

- Provide communications during operations.
- Storage of fluids not exceeding the amounts listed above.

▪ Ensure that the ice is able to support the types of vehicles and equipment used in the filling operation. The GNWT Department of Transportation has published "A Field Guide To Ice Construction Safety", which is a good reference for working on ice and provides guidance on determining a safe thickness of ice for a given load. The following paragraph is from the Field Guide, Section 3.4.

"The ability of ice to support a load is dependent on a number of factors, including ice thickness, the pressure of the water below the ice as deflection develops, the way the ice formed initially, snow cover, vehicle speed and the kinds of load placed on the ice cover. The strength is different for sea and freshwater ice and is affected by the presence of cracks and sudden or extreme temperature changes. It should also be remembered that ice thickness can vary considerably from place to place and until a margin of safety is achieved, extreme caution must be exercised."

The Field Guide is available on DOT's website and should be used as guidance to determine if the ice thickness is sufficient for reservoir filling activities. People in the community who are familiar with the source waterbody should also provide information on site-specific dangers such as known areas of thin ice, which can't be predicted in a general guideline. Additional caution is needed when working with vibrating loads such as pumps, which can cause damage to the ice. If possible, these loads should be kept on shore. If this is not possible, the ice may need to be thicker, and should be monitored for damage such as cracks that may weaken it. The Field Guide provides information on cracked ice.

Response Strategy

In the event of a spill:

- Be alert and consider safety first. If possible, identify the product spilled and the source of the spill.
- Assess the fire and safety hazard to human life; warn people in and around the spill area to Vacate the area if necessary
- Shut off the source of the spill, if safe to do so.
- Shut off all machinery or equipment, for example: lights, motors, furnaces, truck engines that May cause sparks, etc. to start a fire, no smoking.
- Tend to the injured, if any.
- Secure the area by not letting any vehicles or persons enter the area.
- Use good judgment to safely stop the spill product from spreading, if possible, by creating a barrier to keep the area of spill from getting larger
- Notify the SAO / Acting SAO that a spill has occurred. The SAO will follow these steps:

  Step 1: Activate the Spill Recovery Plan.
  Step 2: Consult with on-site staff and determine appropriate level of response.
  Step 3: Notify all relevant government departments using the 24-hour Spill Line.
  Step 4: Deploy appropriate staff resources, including Rubber Tire Loader, Municipal Works staff, Spill Containment Kit located as listed in section 15.
  Step 5: Commence spill containment and collection activities.
  Step 6: See that the contaminated materials are disposed within the solid waste disposal area.
  Step 7: Complete spill report.

**Sewage Spills**

The main source for a sewage spill in Sachs Harbour would be the sewage truck and/or sewage holding tanks in a home or community building. The maximum size of a sewage spill is most likely limited to the capacity of the sewage truck and/or sewage holding tank.

**Response Strategy**

In the event of a spill:

- Be alert and consider safety first. If possible, identify the product spilled and the source of the spill.
- Shut off the source of the spill, if safe to do so.
- Tend to the injured, if any.
- Secure the area by not letting any vehicles or persons enter the area.
- Use good judgment to safely stop the spill product from spreading, if possible, by creating a barrier to keep the area of spill from getting larger
- Notify the SAO / Acting SAO that a spill has occurred.

The SAO will follow these steps:

Step 1: Activate the Spill Recovery Plan.
Step 2: Consult with on-site staff and determine appropriate level of response.
Step 3: Notify all relevant government departments using the 24-hour Spill Line.
Step 4: Deploy appropriate staff resources, including Rubber Tire Loader, Municipal Works staff, Spill Containment Kit located as listed in section 15.
Step 5: Commence spill containment and collection activities preferably using the backup sewage truck. Use of the municipal loader is preferred for the creation of a containment berm and the collection of contaminated soil. The spill contact area is to be treated with lime and covered with soil.
Step 6: See that the contaminated materials are disposed of within the solid waste disposal area.
Step 7: Complete Spill Report.

**General Community Operations**

On a daily basis, the community conducts operations that have the potential to be a small spill situation. Reporting for these spills will be in accordance with the Environmental Protection Act and the volumes outlined in the list of Immediately Reportable Spill Quantities appended to this document.

Defensive Spill Position

General community operations include:

- Retain sufficient supplies (sorbent) in community-owned vehicles and potential spill locations to contain potential spill volumes. Such as motor oil generated from servicing vehicles, gasoline and diesel from the fuelling of equipment.
- Using Storage tanks that meet the fire code and Fire Marshal's recommendations (Dyked tanks or double-walled).
- Training personnel in safe, sensible operational procedures.
- Retain minimum economic volumes of chlorine and other chemicals in the community's possession to reduce the size of a potential spill.
- Retain Safety Data Sheets (SDS) for all chemicals in use.

Response Strategy

The response strategy would be the same as the Reservoir Fill Operation and Flammable Liquids section above, incorporating the information from the appropriate SDS.

Note: Specific chemicals have specific spill containment requirements; the SDS for these chemicals identify the procedure for its collection.

Attach SDS (or MSDS) for all chemicals, fuels, and oils used in community operations.

☑ SDS attached.

**Hazardous Material Spills On-site**

Indicate which of the following materials are generated or stored in your community (check all that apply):

☑ Gasoline

☑ Diesel

☑ Waste Oil and Miscellaneous Oils and Grease

☑ Sewage

**Potential Environmental Impacts of Spill**

Generally, for the hazardous materials discussed below, environmental impacts are lower during the winter, as snow is a natural sorbent and ice forms a barrier lining for eliminating soil or water contamination. Spills can be more readily recovered when identified and reported.

**Gasoline:**

Environmental Impacts:

- Harmful to wildlife and aquatic life
- Not readily biodegradable
- Has potential to bioaccumulate in environment
- Volatilizes easily
- Runoff into water bodies must be avoided

Worst Case Scenario: Fuel truck spill and contents pour onto ground and surrounding environment.

**Diesel:**

Environmental Impacts:

- Harmful to wildlife and aquatic life

- Not readily biodegradable
- Has potential to bioaccumulate in environment
- Burns slowly, more readily contained than volatile fuels
- Runoff into water bodies must be avoided

Worst Case Scenario: Fuel truck spill and contents pour onto ground and surrounding environment.

**Waste Oil and Miscellaneous Oils and Grease**:

Environmental Impacts:

- Harmful to wildlife and aquatic life
- Not readily biodegradable
- Has potential to bioaccumulate in environment
- Runoff into water bodies must be avoided

Worst Case Scenario: All oil and waste oil containers simultaneously spill and contents pour onto ground and surrounding environment.

**Sewage:**

Environmental Impacts:

- Human health hazard and unsightly appearance
- High nutrient concentrations could negatively impact water bodies and runoff into water bodies must be avoided

Worst Case Scenario: All sewage truck and/or sewage holding tanks simultaneously spill and contents pour onto ground and surrounding environment.

**Procedures for Initial Actions**

The following list of actions should be followed by the first person on the scene:

- Ensure safety of all personnel
- Identify the product spilled
- Assess the hazards and risks to persons in the vicinity of the spill
- Remove all sources of ignition
- If possible, without further assistance, control the danger to human life
- If it is safe to do so, and if possible, stop the spill (i.e. shut off pump, replace cap, tip drum upward, etc.)
- Gather information on the status of the situation, including:
  - Estimated size of spill
  - Estimated migration route
- Contact on site Supervisor.

**Spill Reporting Procedures**

Spills should be reported immediately to the onsite Supervisor, who will notify the SAO and Band Manager. Together they will determine if the spill is to be reported to the NWT 24-Hour Spill Line at 867- 920-8130, based on the volumes in the Immediately Reportable Spill Quantities table at the end of this document.

Copies of the Spill Report form are available in each spill kit and at the end of this document. The form will be filled out by the onsite Foreman (or designate), and faxed or emailed to the NWT Spill Line. Contact information is as follows:

NWT 24-Hour Spill Line
Phone: (867) 920-8130
Fax: (867) 873-6924
Email: spills@gov.nt.ca

Briefly describe notification procedures to alert the public if the public may be impacted by a spill.

If the public may be impacted by a spill, the hamlet alerts the public by telephone and/or radios.

**Procedures for the Protection of Human Health and Safety**

Following a spill, the health and safety of workers as well as the general public is a priority. Actions taken will depend on the type of spill.

- In the event of a chemical spill: Restrict public access to the spill area. Workers involved in the clean-up of the spill should wear personal protective equipment (PPE).
- In the event of a flammable or combustible material spill: Disconnect electrical equipment, evacuate adjacent buildings and restrict public access to the spill area. Only spark-arresting equipment should be used during clean-up of the spill. PPE should also be worn by workers involved in the clean-up.
- In the event of a sewage spill: Restrict public access (including pets and animals) to the spill area.

**Procedures for Containing and Controlling Spills**

General procedures noted below will be used to contain and control all spills. Specific procedures for spills on land, water, snow and ice follow.

- First anticipate what will be affected by the spill.
- Assess direction and speed of spill, and any factors that could affect these (water, wind and slope).
- Determine best location for containing spill, avoiding any water bodies.

*Containment of Spills on Land*:

Dykes and trenches can be constructed to contain spills on land. Soil surrounding the spill area can be dug out, and piled up, to create a barrier for the spill. A plastic tarp can be placed at the base of the dyke, so that the pooled material can be removed with sorbent materials. Conversely, trenches can be excavated to permafrost, which will provide a natural containment of the spill. Once the material is contained, it can be pumped out, or removed by using sorbent materials. If

the spill is moving very slowly, such structures may not be necessary and the material can be removed before migrating away from the spill location.

*Containment of Spills on Water*:

Spills on water are considered the most serious types of spills, as there is often no containment of the spilled material and water quality and aquatic life are negatively impacted. Booms, weirs, sediment curtains and fencing can be installed to contain the spill. Booms are designed to float, and are made of absorbent material to soak up the spilled fuel. They are deployed from the shore or a boat, to create a circle around the spill or to contain a spill from migrating further into the receiving water bodies. Weirs are installed across creeks/drainages, to prevent further migration. Plywood or other materials found onsite can be used. Barriers made of fence or netting can be used as well, with sorbent material placed at the base of the barrier. Once contained, the fuel can be removed by absorbent materials, pumped out or
allowed to volatilize.

*Containment of Spills on Snow*:

Snow acts as a natural sorbent for spilled fuel. Impacted snow is easily visible, and can be shoveled into empty drums or barrels for proper disposal. If the spill is migrating down a hill, a snow dyke can be constructed to contain the spill. A plastic tarp can be placed at the base of the dyke, where spilled fuel is expected to pool. The collected fuel and impacted snow can be removed with absorbent materials, pumped out, or shoveled into barrels for disposal.

*Containment of Spills on Ice*:

Ice is considered impermeable to fuel, so these spills are generally easy to clean up. Small spills can be cleaned up by placing absorbent materials on top of the ice. Impacted snow and slush can then be removed by shovels, and placed in barrels for disposal. For larger spills, dykes of snow and trenches can be constructed to contain the spill. Pooled fuel can then be removed by absorbent materials or pumped out. Impacted snow and slush can be shoveled into barrels for disposal.

*Worst Case Scenarios*:

Worst case scenarios include a dyke or trench overflowing and a large spill on water that cannot be contained with materials available in the community. In the first case, a trench or collection pit could be constructed downstream to collect the fuel. In the second case, an emergency response team would need to be called, with appropriate equipment to deal with the spill.

**Procedures for Transferring, Storing and Managing Spill Related Wastes**

Spills are generally cleaned up starting at the outer limit of the spill, and working towards the point of the spill. Sorbent materials and hand tools such as cans and shovels are used for smaller spills. Larger spills can be contained with the use of a pump and/or heavy equipment.

Spill wastes include used absorbent materials and containers of impacted water and snow. Sorbent materials should be placed in plastic bags for proper disposal. The containers of impacted water and snow should be sealed and stored until disposal at an approved facility can be arranged. For most of the containment procedures, spilled petroleum products and materials used for containment will be placed into empty waste oil containers and sealed for proper disposal at an approved disposal facility.

Following a spill, all used materials need to be properly washed and/or replaced.

**Procedures for Restoring Affected Areas**

Once a spill has been contained, community personnel will consult with the Inspector assigned to the file to determine the level of clean-up required. The Inspector may request that a site-specific study be conducted, to ensure appropriate clean-up levels are met.

After clean-up has been completed, the community should follow up with the NWT 24-hour Spill Line to ensure that the spill report file has been closed. Closure of the spill file provides evidence that the spill was cleaned up to the regulator's satisfaction. This will help prevent the spill from being considered an environmental liability for the community in the event of a change of ownership, refinancing, or closure of the site. A copy of the spill report marked "Closed" can be provided on request for the community's files. The Spill Line also keeps copies of these reports on file.

**15. Resource Inventory**

In this section, you will create a **Resource Inventory** by identifying the supplies and equipment available for spill response at each facility.

What earth-moving and other equipment is available in the community for spill cleanup (for any or all facilities)? (Check all that apply, list any additional equipment.)

| | | |
|---|---|---|
| ☑ Loader | ☑ Excavator | ☑ Backhoe |
| ☑ Bobcat | ☑ Bulldozer | ☑ Dump truck |
| ☑ Fuel truck | ☑ Shovels or other hand tools | |

☐ Other (specify):

Which facilities have spill kits? (**Check all that apply.**) Indicate where the spill kit is stored at each facility. Give enough detail for a person to find the spill kit if they don't know where it is. How many litres of spilled oil/fuel are the spill kits designed to contain and collect?

| Facilities | Location of Spill Kit | Spill kits designed to contain and collect spilled oil/fuel in litres (L) |
|---|---|---|
| ☑ Water Treatment Plant | Generator Room | 350L |
| ☐ Sewage Waste Disposal Facilities | | |
| ☐ Solid Waste Disposal Facilities | | |
| ☐ Bulk Fuel Storage Facility | | |

| | | |
|---|---|---|
| ☑ Community Garage | Boiler Room | 350L |
| ☐ Other (specify): | | |
| | | |
| | | |

Additional volumes will be accommodated with the use of absorbent products that will be maintained in inventory in sufficient quantities.

What is included in the spill kit for each facility? Check all materials that apply for each facility. (The typical quantity is shown for information only and all kits should have sufficient material for expected spill volumes at each site.)

| Item | Quantity | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Typical Quantity | Qty at Water Treatment Plant | Qty at Sewage Waste Disposal Facilities | Qty at Solid Waste Disposal Facilities | Qty at Bulk Fuel Storage Facility | Qty at Community Garage | Other (specify): | Other (specify): |
| Tyvek splash suits | 4 | ☐ | ☐ | ☐ | ☐ | ☑ | ☐ | ☐ |
| Chemical master gloves | 4 | ☑ | ☐ | ☐ | ☐ | ☑ | ☐ | ☐ |
| Large bags with ties for temporary use | 10 | ☐ | ☐ | ☐ | ☐ | ☑ | ☐ | ☐ |
| Oil-only booms (5 in by 10 ft) | 2 | ☑ | ☐ | ☐ | ☐ | ☑ | ☐ | ☐ |
| Oil-only mats (6 in x 20 in) | 50 | ☑ | ☐ | ☐ | ☐ | ☑ | ☐ | ☐ |
| Sorbent socks | 5 | ☑ | ☐ | ☐ | ☐ | ☑ | ☐ | ☐ |
| Sorbent pads | 10 | ☑ | ☐ | ☐ | ☐ | ☑ | ☐ | ☐ |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Large tarps | 2 | ☐ | ☐ | ☐ | ☐ | ☑ | ☐ | ☐ |
| Duct tape (roll) | 1 | ☐ | ☐ | ☐ | ☐ | ☑ | ☐ | ☐ |
| Utility knife | 1 | ☐ | ☐ | ☐ | ☐ | ☑ | ☐ | ☐ |
| Field notebook and Pencil | 1 | ☑ | ☐ | ☐ | ☐ | ☑ | ☐ | ☐ |
| Rake | 1 | ☐ | ☐ | ☐ | ☐ | ☑ | ☐ | ☐ |
| Pick axe | 1 | ☐ | ☐ | ☐ | ☐ | ☑ | ☐ | ☐ |
| Aluminum scoop Shovels | 3 | ☐ | ☐ | ☐ | ☐ | ☑ | ☐ | ☐ |
| Instruction binder | 1 | ☑ | ☐ | ☐ | ☐ | ☑ | ☐ | ☐ |
| Copies of the NWT Spill Report form to be completed in the event of a spill | 1 or more | ☐ | ☐ | ☐ | ☐ | ☐ | ☑ | ☐ |

## 16. Spill Contingency Plan – Training

The Department of Environment and Natural Resources schedules a few training sessions each year for spill contingency. Selected members from the community works department can attend these training sessions. Once key personnel have the fundamental information, training sessions will be conducted as a part of the normal operation of the community.

Training will be conducted on an as-needed basis.

Where are training records kept?

Training records are kept on Hamlet Office.

For each facility, indicate the training items that are done. **(Check all that apply.)**

| **Training** | Water Treatment Plant | Sewage Waste Disposal Facilities | Solid Waste Disposal Facilities | Bulk Fuel Storage Facility |
|---|---|---|---|---|
| All individuals working at the facility are required to participate in an orientation session. | ☑ | ☑ | ☑ | ☐ |
| During the orientation, all locations of the Spill Contingency Plan and spill kits are indicated. | ☐ | ☐ | ☐ | ☐ |
| During the orientation, an overview of the Spill Contingency Plan is provided. | ☐ | ☐ | ☐ | ☐ |
| Specific training sessions, including mock spill exercises, are scheduled for individuals directly involved with handling hazardous materials. | ☐ | ☐ | ☐ | ☐ |
| All facility operators are required to have their basic first aid training, as well as WHMIS training, before working on the site. | ☑ | ☑ | ☑ | ☐ |
| A spreadsheet is kept by the Band Manager or Senior Administrative Officer at the Community head office | ☑ | ☑ | ☑ | ☐ |

| | | | | |
|---|---|---|---|---|
| indicating the training undertaken by the facility operator, and expiry dates for specific training. | | | | |
| Other (Specify): | ☐ | ☐ | ☐ | ☐ |
| | ☐ | ☐ | ☐ | ☐ |
| | ☐ | ☐ | ☐ | ☐ |

**17. Hazardous Waste Information**

**Asbestos:** Exposed asbestos fibres from construction and demolition debris present a risk to human health. The risks to human health are lowered to safe levels when asbestos is properly packaged according to the conditions set by the Worker Safety and Compensation Commission. Once this has taken place, a hole must be dug in advance of acceptance and the asbestos needs to be buried immediately. The location needs to be documented to prevent future disturbance. Further details can be found in ENR's document *Guideline for the Management of Waste Asbestos: http://www.enr.gov.nt.ca/sites/enr/files/guidelines/asbestos.pdf.*

**Lead-acid batteries** are commonly found in vehicles. Both the lead and the acid are contaminants. Batteries in good condition can be stacked on pallets and banded or shrink-wrapped for transportation when enough have been collected to make shipping worthwhile. Store broken batteries in a pail or other container to prevent spills and avoid contact with battery acid. Further details can be found in ENR's document *Guideline for the Management of Waste Batteries: http://www.enr.gov.nt.ca/sites/enr/files/guidelines/batteryguideline.pdf.*

**Glycols:** Waste antifreeze (Ethylene Glycol) is generated from vehicle maintenance. Propylene glycol is more common to the industrial/commercial sector where it is used for heating larger buildings. Glycols can be stored in pails or drums until the quantity warrants shipping. Further details can be found in ENR's document *Guideline for the Management of Waste Antifreeze: http://www.enr.gov.nt.ca/sites/enr/files/guidelines/antifreezeguideline.pdf.*

**Hydrocarbon-contaminated soil, snow, and water** that result from spills or contaminated sites are managed as a hazardous waste in the NWT. Hydrocarbons include diesel, heating oil, gasoline, and other petroleum products. Communities wanting to store or treat contaminated soil, snow, or water may need to amend their water licence. Contact ENR for guidance on developing appropriate facilities.

**Mercury** is a severely toxic contaminant. Disposal needs to be reduced to levels as low as reasonably achievable. Thermostats, thermometers, mercury switches and fluorescent lamps all contain mercury. They can be safely stored in clearly marked pails. Drum-top crushing equipment can be used to remove the mercury from fluorescent bulbs. Other types of mercury-containing lights (i.e. street lamps or high intensity discharge lamps from the industrial/commercial sector)

require specialized disposal methods and usually need to be transported to southern receiving facilities. For further information, see ENR's document *Guide to Recycling Mercury-Containing Lamps:* http://www.enr.gov.nt.ca/sites/enr/files/brochures/mcl_recycling_per_web_2012_guide.pdf.

**Oily debris** can consist of rags, sorbent material, or containers used to store or clean up oil. These materials are contaminants that cannot be added to a typical soil treatment facility, but need to be kept segregated from other waste.

**Ozone depleting substances (ODS), also referred to as halocarbons**, are chemicals mainly used in air conditioning and refrigeration equipment. The release of these substances depletes the ozone layer and is prohibited. Refrigerants need to be recovered by a trained technician prior to disposal of items containing refrigerants, including refrigerators, freezers and vehicles. Specific training is required for anyone servicing equipment containing ODSs and halocarbon alternatives. For more information, see ENR's document *Environmental Guideline for Ozone Depleting Substances (ODS's) and Halocarbon Alternatives:* http://www.enr.gov.nt.ca/sites/enr/files/guidelines/guideline_for_ozone_depleting_substances_and_halocarbon_alternatives.pdf.

**Paint:** Paint can contain a number of hazardous chemicals, including lead. Whenever possible, paint should be used rather than disposed of. If it can't be used, the disposal method depends on the type of paint (check the label). Oil-based paint should be stored in approved 205 litre drums, ready for shipping. Latex paints can be landfilled after they are completely dried out (they can be spread out on a board or sheet to dry). Industrial/commercial paints usually need specialized treatment methods and should not be collected at the community Solid Waste Disposal Facilities. Check ENR's document *Guideline for the Management of Waste Lead and Lead Paint* ( http://www.enr.gov.nt.ca/sites/enr/files/guidelines/guideline_waste_lead_and_paint.pdf) for more information.

**Propane tanks** and aerosol cans are regulated as a dangerous good and are a potential explosion hazard at all times. Propane tanks can be returned to the retailer or supplier for safe storage and transport. Trained staff can safely evacuate the propane gas, making the tanks safe for scrap metal. Large propane tanks and other compressed gas canisters from the industrial/commercial sector should not be collected at the community Solid Waste Disposal Facilities.

**Residue Fuel Tanks / Heating Oil Tanks / Residue Drums:** Fuel storage tanks and drums often contain residue (e.g. sludge at the bottom), or may still contain flammable vapours. Tanks must be properly emptied prior to disposal as scrap metal. Empty drums need to be stored on their sides to prevent water from accumulating.

**Used oil** can be used as feedstock for a used oil furnace if the testing and other conditions in the *Used Oil and Waste Fuel Management Regulations Plain Language Guide* ( http://www.enr.gov.nt.ca/sites/enr/files/guidelines/used_oil_guide.pdf) are met. Used oil can be stored in clearly labelled good quality tanks or drums. Do not let drums or pails be contaminated with glycol or solvents. Do not accept excessive volumes from the industrial/commercial sector.

**Waste Fuel:** Residents generate waste fuel from the use of gas-powered equipment and need a local disposal option. Waste fuel from residents can be bulked into UN-approved steel drums at Household Hazardous Waste collection events, or on a daily basis. The decision to accept waste fuel from residents on a daily basis requires appropriate screening methods to screen out incompatible materials from residents and excessive volumes of fuel or solvents from the industrial/commercial/institutional sector.

**Vehicles:** End-of-life vehicles contain antifreeze, batteries, fuel, mercury switches and other lubricating fluids that are considered hazardous waste and need to be removed. Once the

hazardous materials are removed, the rest of the vehicle can be treated as scrap metal. Refrigerants from air conditioning systems will need to be removed by a trained technician.

## 18. Record-Keeping

Record keeping requirements related to spill contingency plan should be filed as an annual report with the Inuvialuit Water Board (IWB) no later than the date stipulated in the water license for the previous year. Record keeping requirements as specified in the municipal water licence are as following:

- a list of spills and unauthorized discharges
- a description of any spill training and/or other operator training carried out
- any updates and/or revisions to the approved Spill Contingency Plan;

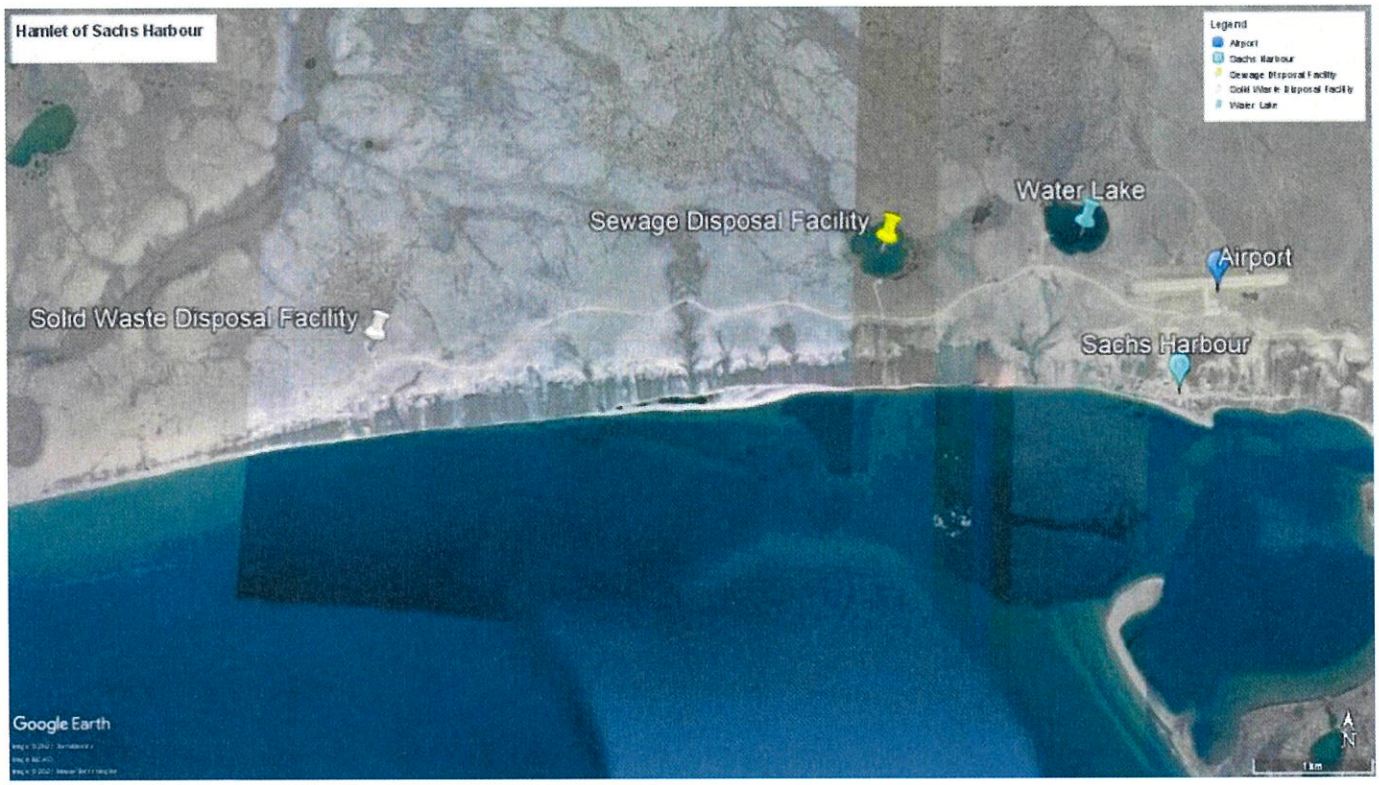
Include a description of the record keeping procedures that will document which employees have received training and when training was received.

All the relevant information/records are documented by the Hamlet Staff (e.g. SAO, Foreman) and placed on the Hamlet Office. If the training are offered by the Department of Environment and Natural Resources or Department of Municipal and Community Affairs, the Hamlet Staff will participate in such trainings.

# Appendices

**Appendix 1: Attached a Map of the Hamlet as indicated on page 3, section 1.**


Appendix 1: Hamlet of Sachs Harbour
Sachs Harbour ( Lat 71°59'6.86"N & Long125°14'54.12"W)
Google Earth
500 m
N


Hamlet of Sachs Harbour
Legend
Airport
Sachs Harbour
Sewage Disposal Facility
Solid Waste Disposal Facility
Water Lake
Water Lake
Sewage Disposal Facility
Airport
Solid Waste Disposal Facility
Sachs Harbour
Google Earth
1 km
N

**Appendix 2: Attach Map(s) showing all features as indicated on page 4, section 2.**


Maps Showing Multiple Facilities
Solid Waste Disposal Facility
(Lat 71°59'9.49"N &
Long 125°27'2.41"W)
Sewage Disposal Facility
(Lat 71°59'42.36"N &
Long 125°19'25.11"W)
Raw Sewage Discharge Chute
Drinking Water Treatment Plant
Spill Kit Location
Water Lake
(Lat 71°59'48.64"N &
Long 125°16'26.73"W)
Airport
(Lat 71°59'35.26"N &
Long 125°14'22.93"W)
Sachs Harbour
(Lat 71°59'6.86"N &
Long 125°14'54.12"W)
Google Earth
1 km
N


Hamlet of Sachs Harbour
Airport
Community Garage
Spill Kit Location
Inualthuyak
School
Sachs Harbour
Google Earth
©2021 Google
Image ©2021 Maxar Technologies
N
500 m

## Appendix 3: Immediately Reportable Spill Quantities

| TDG Class | Substance for NWT 24 Hour Spill Line | Immediately Reportable Quantities |
|---|---|---|
| 1 | Explosives | Any amount |
| 2.3 | Compressed gas (toxic) | |
| 2.4 | Compressed gas (corrosive) | |
| 6.2 | Infectious substances | |
| 7 | Radioactive | |
| None | Unknown substance | |
| 2.1 | Compressed gas (flammable) | Any amount of gas from containers with a capacity greater than 100 L |
| 2.2 | Compressed gas (non-corrosive, nonflammable) | |
| 3.1 | Flammable liquids | > 100 L |
| 3.2 | | |
| 3.3 | | |
| 4.1 | Flammable solids | > 25 kg |
| 4.2 | Spontaneously combustible solids | |
| 4.3 | Water reactant | |
| 5.1 | Oxidizing substance | > 50 L or 50 kg |
| 9.1 | Miscellaneous products or substances excluding PCB mixtures | |
| 5.2 | Organic peroxides | > 1 L or 1 kg |
| 9.2 | Environmentally hazardous | |
| 6.1 | Poisonous substances | > 5 L or 5 kg |
| 8 | Corrosive substances | |
| 9.3 | Dangerous wastes | |
| 9.1 | PCB mixtures of 5 or more ppm | > 0.5 L or 0.5 kg |
| None | Other contaminants (e.g., crude oil, drilling fluid, produced water, waste or spent chemicals, used or waste oil, vehicle fluids, waste water, etc.) | > 100 L or 100 kg |
| None | Sour natural gas (i.e., contains $H_2S$), sweet natural gas | Uncontrolled release or sustained flow of 10 min or more |

**Note:** In addition, all releases of harmful substances, regardless of quantity, are to be reported to the NWT spill line if the release is near or into a water body, is near or into a designated sensitive environment or sensitive wildlife habitat, poses imminent threat to human health or safety, poses imminent threat to a listed species at risk or its critical habitat, or is uncontrollable.
Source: AANDC, *Guidelines for Spill Contingency Planning*. April 2007

## Appendix 4: Attach "NT-NU SPILL REPORT" Form

# NT-NU SPILL REPORT

## OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

**NT-NU 24-HOUR SPILL REPORT LINE**
**Tel: (867) 920-8130 • Fax: (867) 873-6924 • Email: spills@gov.nt.ca**

**REPORT LINE USE ONLY**

| | | | | |
|---|---|---|---|---|
| A | Report Date: MM / DD / YY | Report Time: | ☐ Original Spill Report OR ☐ Update # _____ to the Original Spill Report | Report Number: |
| B | Occurrence Date: MM / DD / YY | Occurrence Time: | | |
| C | Land Use Permit Number (if applicable): | | Water Licence Number (if applicable): | |
| D | Geographic Place Name or Distance and Direction from the Named Location: | | Region: ☐ NT ☐ Nunavut ☐ Adjacent Jurisdiction or Ocean | |
| E | Latitude: _____ Degrees _____ Minutes _____ Seconds | | Longitude: _____ Degrees _____ Minutes _____ Seconds | |
| F | Responsible Party or Vessel Name: | | Responsible Party Address or Office Location: | |
| G | Any Contractor Involved: | | Contractor Address or Office Location: | |
| H | Product Spilled: ☐ Potential Spill | Quantity in Litres, Kilograms or Cubic Metres: | U.N. Number: | |
| I | Spill Source: | Spill Cause: | Area of Contamination in Square Metres: | |
| J | Factors Affecting Spill or Recovery: | Describe Any Assistance Required: | Hazards to Persons, Property or Environment: | |
| K | Additional Information, Comments, Actions Proposed or Taken to Contain, Recover or Dispose of Spilled Product and Contaminated Materials: | | | |

| | | | | | |
|---|---|---|---|---|---|
| L | Reported to Spill Line by: | Position: | Employer: | Location Calling From: | Telephone: |
| M | Any Alternate Contact: | Position: | Employer: | Alternate Contact Location: | Alternate Telephone: |

**REPORT LINE USE ONLY**

| | | | | | |
|---|---|---|---|---|---|
| N | Received at Spill Line by: | Position: | Employer: | Location Called: | Report Line Number: |

Lead Agency: ☐ EC ☐ CCG/TCMSS ☐ GNWT ☐ GN ☐ ILA ☐ AANDC ☐ NEB ☐ Other: _____

Significance: ☐ Minor ☐ Major ☐ Unknown

File Status: ☐ Open ☐ Closed

| Agency: | Contact Name: | Contact Name: | Remarks: |
|---|---|---|---|
| Lead Agency: | | | |
| First Support Agency: | | | |
| Second Support Agency: | | | |
| Third Support Agency: | | | |

**Appendix 5: Attach Material Safety Data Sheet (MSDS) for all chemicals, fuels, and oils used in community operations**

# SAFETY DATA SHEET

# DIESEL FUEL

**000003000395**

Version 5.4 | Revision Date 2020/10/06 | Print Date 2020/10/06

## SECTION 1. IDENTIFICATION

| | | |
|---|---|---|
| Product name | : | DIESEL FUEL |
| Synonyms | : | Seasonal Diesel, #2 Diesel, #1 Diesel, #2 Heating Oil, #1 Heating Oil, OSX, D50, Arctic Diesel, Farm Diesel, Marine Diesel, Low Sulphur Diesel, LSD, Ultra Low Sulphur Diesel, ULSD, Mining Diesel, Naval Distillate, Dyed Diesel, Marked Diesel, Coloured Diesel, Furnace special, Biodiesel blend, B1, B2, B5, Diesel Low Cloud (LC), Marine Gas Oil, Marine Gas Oil Dyed. |
| Product code | : | 103193, 103178, 103136, 103135, 103134, 103133, 103132, 103131, 101799, 102907, 102762, 102763, 102755, 102302, 102744, 101801, 100678, 100677, 101802, 100107, 100668, 100658, 100911, 100663, 100652, 100460, 100065, 101796, 101793, 101795, 101792, 101794, 101791, 100768, 100643, 100642, 100103, 101798, 101800, 101797, 101788, 101789, 101787, 102531, 100734, 100733, 100640, 100997, 100995, 100732, 100731, 100994 |
| Manufacturer or supplier's details | | Petro-Canada<br>P.O. Box 2844, 150 - 6th Avenue South-West<br>Calgary Alberta T2P 3E3<br>Canada |
| Emergency telephone number | | CHEMTREC: 1-800-424-9300 (toll free) or +1 703-527-3887;<br>Suncor Energy: +1 403-296-3000 |

**Recommended use of the chemical and restrictions on use**

| | | |
|---|---|---|
| Recommended use | : | Diesel fuels are distillate fuels suitable for use in high and medium speed internal combustion engines of the compression ignition type. Mining diesels, marine diesels, MDO and naval distillates may have a higher flash point requirement. |
| Prepared by | : | Product Safety: +1 905-804-4752 |

## SECTION 2. HAZARDS IDENTIFICATION

**Emergency Overview**

| | |
|---|---|
| Appearance | Bright oily liquid. |
| Colour | Clear to yellow (This product may be dyed red for taxation purposes) |
| Odour | Mild petroleum oil like. |

**GHS Classification**

Flammable liquids : Category 3

| | | |
|---|---|---|
| Acute toxicity (Inhalation) | : | Category 4 |
| Skin irritation | : | Category 2 |
| Carcinogenicity | : | Category 2 |
| Specific target organ toxicity - single exposure | : | Category 3 (Central nervous system) |
| Specific target organ toxicity - repeated exposure | : | Category 2 (Liver, thymus, Bone) |
| Aspiration hazard | : | Category 1 |

**GHS label elements**

Hazard pictograms :

Signal word : Danger

Hazard statements : Flammable liquid and vapour.
May be fatal if swallowed and enters airways.
Causes skin irritation.
Harmful if inhaled.
May cause drowsiness or dizziness.
Suspected of causing cancer.
May cause damage to organs (Liver, thymus, Bone) through prolonged or repeated exposure.

Precautionary statements : **Prevention:**
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Keep container tightly closed.
Ground and bond container and receiving equipment.
Use explosion-proof electrical/ ventilating/ lighting equipment.
Use non-sparking tools.
Take action to prevent static discharges.
Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
Wash skin thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/ protective clothing/ eye protection/ face protection.
**Response:**
IF SWALLOWED: Immediately call a POISON CENTER/doctor.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
IF exposed or concerned: Get medical advice/ attention.
Do NOT induce vomiting.

If skin irritation occurs: Get medical advice/ attention.
Take off contaminated clothing and wash it before reuse.
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
**Storage:**
Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.
**Disposal:**
Dispose of contents/ container to an approved waste disposal plant.

**Potential Health Effects**

Primary Routes of Entry : Eye contact
Ingestion
Inhalation
Skin contact

Aggravated Medical Condition : None known.

**Other hazards**

None known.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

**Hazardous components**

| Chemical name | CAS-No. | Concentration |
|---|---|---|
| Kerosine (petroleum), hydrodesulfurized; Kerosine — unspecified | 64742-81-0 | 70 - 100 % |
| Kerosine (petroleum); Straight run kerosine | 8008-20-6 | |
| Fuels, diesel; Gasoil — unspecified | 68334-30-5 | |
| Alkanes, C10-20-branched and linear | 928771-01-1 | 0 - 30 % |
| Fatty acids, C16-18 and C18-unsatd., Me esters | 67762-38-3 | 0 - 20 % |

All above concentrations are in percent by weight.

## SECTION 4. FIRST AID MEASURES

If inhaled : Move to fresh air.
Artificial respiration and/or oxygen may be necessary.
Seek medical advice.

In case of skin contact : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
Wash skin thoroughly with soap and water or use recognized skin cleanser.
Wash clothing before reuse.
Seek medical advice.

In case of eye contact : Remove contact lenses.
Rinse immediately with plenty of water, also under the eyelids,

| | | |
|---|---|---|
| | | for at least 15 minutes.<br>Obtain medical attention. |
| If swallowed | : | Rinse mouth with water.<br>DO NOT induce vomiting unless directed to do so by a physician or poison control center.<br>Never give anything by mouth to an unconscious person.<br>Seek medical advice. |
| Most important symptoms and effects, both acute and delayed | : | Harmful if inhaled.<br>Respiratory, skin and eye irritation; nausea; cancer. |
| Notes to physician | : | Treat symptomatically.<br>For specialist advice physicians should contact the Poisons Information Service. |

## SECTION 5. FIREFIGHTING MEASURES

| | | |
|---|---|---|
| Suitable extinguishing media | : | Dry chemical<br>Carbon dioxide (CO2)<br>Water fog.<br>Foam |
| Unsuitable extinguishing media | : | Do NOT use water jet. |
| Specific hazards during firefighting | : | Cool closed containers exposed to fire with water spray. |
| Hazardous combustion products | : | Carbon oxides (CO, CO2), nitrogen oxides (NOx), sulphur oxides (SOx), smoke and irritating vapours as products of incomplete combustion. |
| Further information | : | Prevent fire extinguishing water from contaminating surface water or the ground water system. |
| Special protective equipment for firefighters | : | Wear self-contained breathing apparatus for firefighting if necessary. |

## SECTION 6. ACCIDENTAL RELEASE MEASURES

| | | |
|---|---|---|
| Personal precautions, protective equipment and emergency procedures | : | For personal protection see section 8.<br>Ensure adequate ventilation.<br>Evacuate personnel to safe areas.<br>Material can create slippery conditions. |
| Environmental precautions | : | If the product contaminates rivers and lakes or drains inform respective authorities. |
| Methods and materials for containment and cleaning up | : | Prevent further leakage or spillage if safe to do so.<br>Remove all sources of ignition.<br>Soak up with inert absorbent material.<br>Non-sparking tools should be used.<br>Ensure adequate ventilation.<br>Contact the proper local authorities. |

## SECTION 7. HANDLING AND STORAGE

| | | |
|---|---|---|
| Advice on safe handling | : | For personal protection see section 8. |

| | | |
|---|---|---|
| | | Smoking, eating and drinking should be prohibited in the application area.<br>Use only with adequate ventilation.<br>In case of insufficient ventilation, wear suitable respiratory equipment.<br>Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity.<br>Avoid contact with skin, eyes and clothing.<br>Do not ingest.<br>Keep away from heat and sources of ignition.<br>Keep container closed when not in use. |
| Conditions for safe storage | : | Store in original container.<br>Containers which are opened must be carefully resealed and kept upright to prevent leakage.<br>Keep in a dry, cool and well-ventilated place.<br>Keep in properly labelled containers.<br>To maintain product quality, do not store in heat or direct sunlight.<br>Ensure the storage containers are grounded/bonded. |

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Components with workplace control parameters**

| Components | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
|---|---|---|---|---|
| Kerosine (petroleum), hydrodesulfurized; Kerosine — unspecified | 64742-81-0 | TWA | 200 mg/m3 (As total hydrocarbon vapour) | ACGIH |
| | | TWA | 200 mg/m3 (total hydrocarbon vapor) | CA AB OEL |
| | | TWA | 525 mg/m3 | CA ON OEL |
| | | TWA | 200 mg/m3 (As total hydrocarbon vapour) | ACGIH |
| | | TWA | 200 mg/m3 (total hydrocarbon vapor) | ACGIH |
| Kerosine (petroleum); Straight run kerosine | 8008-20-6 | TWA | 200 mg/m3 (total hydrocarbon vapor) | CA BC OEL |
| | | TWA | 200 mg/m3 (total hydrocarbon vapor) | CA AB OEL |
| | | TWA | 200 mg/m3 (total hydrocarbon vapor) | ACGIH |
| Fuels, diesel; Gasoil — unspecified | 68334-30-5 | TWA | 100 mg/m3 (total hydrocarbons) | CA AB OEL |
| | | TWA (Vapour and | 100 mg/m3 (total hydrocar- | CA BC OEL |

| | | | | |
|---|---|---|---|---|
| | | inhalable aerosols) | bons) | |
| | | TWA (Inhalable fraction and vapor) | 100 mg/m3 (total hydrocarbons) | ACGIH |

**Engineering measures** : Adequate ventilation to ensure that Occupational Exposure Limits are not exceeded.
Use only in well-ventilated areas.
Ensure that eyewash station and safety shower are proximal to the work-station location.

**Personal protective equipment**

Respiratory protection : Concentration in air determines protection needed.
Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Filter type : organic vapour cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air-purifying respirators is limited. Use a positive-pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstances where air-purifying respirators may not provide adequate protection.

Hand protection
Material : neoprene, nitrile, polyvinyl alcohol (PVA), Viton(R). Consult your PPE provider for breakthrough times and the specific glove that is best for you based on your use patterns. It should be realized that eventually any material regardless of their imperviousness, will get permeated by chemicals. Therefore, protective gloves should be regularly checked for wear and tear. At the first signs of hardening and cracks, they should be changed.

Remarks : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Eye protection : Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

Protective measures : Wash contaminated clothing before re-use.

Hygiene measures : Remove and wash contaminated clothing and gloves, including the inside, before re-use.
Wash face, hands and any exposed skin thoroughly after handling.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| | | |
|---|---|---|
| Appearance | : | Bright oily liquid. |
| Colour | : | Clear to yellow (This product may be dyed red for taxation purposes) |
| Odour | : | Mild petroleum oil like. |
| Odour Threshold | : | No data available |
| pH | : | No data available |
| Melting point | : | No data available |
| Boiling point/boiling range | : | 150 - 371 °C (302 - 700 °F) |
| Decomposition temperature | | No data available |
| Flash point | : | > 40 °C (104 °F)<br>Method: closed cup |
| Auto-Ignition Temperature | : | 225 °C (437 °F) |
| Evaporation rate | : | No data available |
| Flammability | : | Flammable in presence of open flames, sparks and heat. Vapours are heavier than air and may travel considerable distance to sources of ignition and flash back. This product can accumulate static charge and ignite. |
| Upper explosion limit | : | 6 %(V) |
| Lower explosion limit | : | 0.7 %(V) |
| Vapour pressure | : | 7.5 mmHg (20 °C / 68 °F) |
| Relative vapour density | : | 4.5 |
| Relative density | : | 0.8 - 0.88 |
| Solubility(ies) | | |
| Water solubility | : | insoluble |
| Partition coefficient: n-octanol/water | : | No data available |
| Viscosity | | |
| Viscosity, kinematic | : | 1.3 - 4.1 cSt (40 °C / 104 °F) |

## SECTION 10. STABILITY AND REACTIVITY

| | | |
|---|---|---|
| Reactivity | : | Stable at normal ambient temperature and pressure. |
| Chemical stability | : | Stable under normal conditions. |
| Possibility of hazardous reactions | : | Hazardous polymerisation does not occur. |
| Conditions to avoid | : | Extremes of temperature and direct sunlight. |
| Incompatible materials | : | Reactive with oxidising agents and acids. |
| Hazardous decomposition products | : | May release COx, NOx, SOx, smoke and irritating vapours when heated to decomposition. |

## SECTION 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**
Eye contact
Ingestion
Inhalation
Skin contact

**Acute toxicity**

**Product:**

| | | |
|---|---|---|
| Acute oral toxicity | : | Remarks: Based on available data, the classification criteria are not met. |
| Acute inhalation toxicity | : | Acute toxicity estimate: 1.2 mg/l<br>Exposure time: 4 h<br>Test atmosphere: dust/mist<br>Method: Calculation method<br>Remarks: Harmful if inhaled. |
| Acute dermal toxicity | : | Remarks: Based on available data, the classification criteria are not met. |

**Components:**

**Kerosine (petroleum), hydrodesulfurized; Kerosine — unspecified:**

| | | |
|---|---|---|
| Acute oral toxicity | : | LD50 (Rat): > 5,000 mg/kg, |
| Acute inhalation toxicity | : | LC50 (Rat): > 5.2 mg/l<br>Exposure time: 4 hrs<br>Test atmosphere: dust/mist |
| Acute dermal toxicity | : | LD50 (Rabbit): > 2,000 mg/kg, |

**Kerosine (petroleum); Straight run kerosine:**

| | | |
|---|---|---|
| Acute oral toxicity | : | LD50 (Rat): > 5,000 mg/kg, |
| Acute inhalation toxicity | : | LC50 (Rat): > 5 mg/l<br>Exposure time: 4 h<br>Test atmosphere: dust/mist |
| Acute dermal toxicity | : | LD50 (Rabbit): > 2,000 mg/kg, |

**Fuels, diesel; Gasoil — unspecified:**

| | | |
|---|---|---|
| Acute oral toxicity | : | LD50 (Rat): 7,500 mg/kg, |

| | | |
|---|---|---|
| Acute inhalation toxicity | : | LC50 (Rat): 4.1 mg/l<br>Exposure time: 4 h<br>Test atmosphere: vapour |
| Acute dermal toxicity | : | LD50 (Mouse): 24,500 mg/kg, |

**Skin corrosion/irritation**

**Product:**
Remarks: Causes skin irritation.

**Serious eye damage/eye irritation**

**Product:**
Remarks: Based on available data, the classification criteria are not met.

**Respiratory or skin sensitisation**

**Product:**
Remarks: Based on available data, the classification criteria are not met.

**Germ cell mutagenicity**

**Product:**

| | |
|---|---|
| Germ cell mutagenicity- Assessment | Based on available data, the classification criteria are not met. |

**Carcinogenicity**

**Product:**

| | |
|---|---|
| Carcinogenicity - Assessment | Suspected of causing cancer. |

**Reproductive toxicity**

**Product:**

| | |
|---|---|
| Reproductive toxicity - Assessment | Based on available data, the classification criteria are not met. |

**STOT - single exposure**

**Product:**
Target Organs: Central nervous system
Remarks: May cause drowsiness or dizziness.

**STOT - repeated exposure**

**Product:**
Target Organs: Liver, thymus, Bone

Remarks: May cause damage to organs through prolonged or repeated exposure.

No data available

**Aspiration toxicity**

**Product:**

May be fatal if swallowed and enters airways.

## SECTION 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

**Product:**

| | | |
|---|---|---|
| Toxicity to fish | : | Remarks: No data available |
| Toxicity to daphnia and other aquatic invertebrates | : | Remarks: No data available |
| Toxicity to algae | : | Remarks: No data available |
| Toxicity to bacteria | : | Remarks: No data available |

**Persistence and degradability**

**Product:**

| | | |
|---|---|---|
| Biodegradability | : | Remarks: No data available |

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Other adverse effects**

No data available

## SECTION 13. DISPOSAL CONSIDERATIONS

**Disposal methods**

| | | |
|---|---|---|
| Waste from residues | : | The product should not be allowed to enter drains, water courses or the soil.<br>Offer surplus and non-recyclable solutions to a licensed disposal company.<br>Waste must be classified and labelled prior to recycling or disposal.<br>Send to a licensed waste management company.<br>Dispose of as hazardous waste in compliance with local and national regulations.<br>Dispose of product residue in accordance with the instructions of the person responsible for waste disposal. |

## SECTION 14. TRANSPORT INFORMATION

**International Regulations**

**IATA-DGR**

| | |
|---|---|
| UN/ID No. | : UN 1202 |
| Proper shipping name | : Diesel fuel |
| Class | : 3 |
| Packing group | : III |
| Labels | : Class 3 - Flammable Liquid |
| Packing instruction (cargo aircraft) | : 366 |

**IMDG-Code**

| | |
|---|---|
| UN number | : UN 1202 |
| Proper shipping name | : DIESEL FUEL |
| Class | : 3 |
| Packing group | : III |
| Labels | : 3 |
| EmS Code | : F-E, S-E |
| Marine pollutant | : no |

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

**National Regulations**

**TDG**

| | |
|---|---|
| UN number | : UN 1202 |
| Proper shipping name | : DIESEL FUEL |
| Class | : 3 |
| Packing group | : III |
| Labels | : 3 |
| ERG Code | : 128 |
| Marine pollutant | : no |

## SECTION 15. REGULATORY INFORMATION

This product has been classified according to the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all of the information required by the HPR.

**The components of this product are reported in the following inventories:**

**DSL** On the inventory, or in compliance with the inventory

## SECTION 16. OTHER INFORMATION

For Copy of SDS : Internet: www.petro-canada.ca/msds
Canada-wide: telephone: 1-800-668-0220; fax: 1-800-837-1228
For Product Safety Information: 1 905-804-4752

Prepared by : Product Safety: +1 905-804-4752

Revision Date : 2020/10/06

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

(545138)

# ALLIED UNIVERSAL CORPORATION

*Headquarters:* *3901 NW 115th Avenue, Miami, Florida 33178* *Phone:* (305) 888 - 2623

# MATERIAL SAFETY DATA SHEET

*May be used to comply with OSHA's Hazard Communication Standard, 29 CFR § 1910.1200.*

TODAY'S DATE: 09/06/07 MSDS NUMBER: 0001

24 HOUR EMERGENCY CHEMICAL SPILL OR RELEASE PHONE NUMBERS:

***Allied Universal Corp.*** *at* ***1-305-483-7732*** *(Digital Beeper) and/or* ***CHEMTREC*** *at* ***1-800-424-9300***

## SECTION 1 CHEMICAL PRODUCT/COMPANY IDENTIFICATION

# Sodium Hypochlorite

**Product Names:** Aqua Guard Chlorinating Sanitizer, Aqua Guard Bleach, Liquid Chlorine Solution, Liquid Bleach, Hypochlorite, Hypo and Chlorine Bleach.

**Listed Strengths:** 10.5%, 12.5% and 15% **CAS Number:** 7681-52-9

**Date MSDS Revised:** August 2007 (previous revision 11/04)

**Product Use:** Disinfectant and sanitizer, see product label for all approved uses & instructions.

**NSF Approval:** Yes. Certified to NSF/ANSI Standard 60. Maximum use in Potable Water is 84 mg/L for 12.5% bleach and 100 mg/L for 10.5% bleach.

**NSF Non-Food Compounds Approval:** Yes

## SECTION 2 HAZARD INGREDIENTS/IDENTITY INFORMATION

**Hazardous Ingredient(s): % (w/w) as Sodium Hypochlorite :** 10.5-16%

**Exposure Standards:** None established for Sodium Hypochlorite, as Chlorine exposure standards are:

| | | | |
|---|---|---|---|
| **PEL (OSHA):** | 1 ppm as $Cl_2$ | **STEL (OSHA):** | 3 ppm as $Cl_2$ |
| **TLV (ACGIH):** | 0.5 ppm as $Cl_2$ | **TWA (ACGIH):** | 0.5 ppm as $Cl_2$ |
| **WEEL (AIHA):** | 2 mg/m3, 15 minute TWA as $Cl_2$ | **STEL (ACGIH):** | 1 ppm as $Cl_2$ |

**Emergency Overview:** May cause burns to the eyes, skin and mucous membranes.

## SECTION 3 PHYSICAL/CHEMICAL CHARACTERISTICS

| | |
|---|---|
| **Alternate Name(s):** | Bleach |
| **Chemical Name:** | Sodium Hypochlorite |
| **Chemical Family:** | Oxidizing Agent |
| **Molecular Formula:** | Na-O-Cl |
| **Form:** | Liquid |
| **Appearance:** | Water clear to a slight greenish-yellow, or light yellow aqueous solution |
| **Odor:** | Chlorine odor |
| **pH:** | 11-14, dependent upon % weight as Sodium Hypochlorite |
| **Vapor Pressure:** | Not available |
| **Vapor Density (Air=1):** | Not available |
| **Boiling Point:** | Approximately 230° F (110° C) |
| **Freezing Point:** | 14 F(8% w/w $Cl_2$ solution), 7 F(10% w/w $Cl_2$ solution), -3 F (12% w/w $Cl_2$ solution) |
| **Solubility (Water):** | Completely Soluble |
| **Solubility (Other):** | Reacts with Many Organic Solvents |
| **Density:** | Appx. 10 lbs. per gallon |
| **Evaporation Rate:** | Not Available |
| **Specific Gravity:** | 1.126 (8% w/w $Cl_2$ solution), 1.163 (10% w/w $Cl_2$ solution), 1.202 (12% w/w $Cl_2$ solution), 1.25 (15% w/w $Cl_2$ solution) |
| **Molecular Weight:** | 74.5 |

## SECTION 4 STABILITY & REACTIVITY DATA

| **Chemical Stability** | **Stable** X | **Unstable** _____ |
|---|---|---|
| **Incompatibility (Conditions to Avoid):** Stability decreases with heat and light exposure. | | |
| **Incompatibility (Materials to Avoid):** May react violently with strong acids. Other incompatibles include strong caustics, ammonia, urea, reducing agents, organics, ether and oxidizable materials. Reaction with metals (nickel, iron, cobalt and copper) may produce oxygen gas, which supports combustion. May react with organohalogen compounds to | | |

| |
|---|
| form spontaneously combustible compounds. May react explosively with nitro- and chloro-organic compounds as well as acids and reducing agents. Acidification liberates chlorine gas. |
| **Hazardous Decomposition or Byproducts:** Chlorine gas. Decomposes with heat and reacts with acids. Hazardous gases/vapors produced are hypochlorous acid, chlorine and hydrochloric acid. Composition depends upon temperature and decrease in pH. Additional decomposition products, which depend on pH, temperature and time, are sodium chloride and chlorate, and oxygen. |

| No Mechanical Shock or Impact | No Static Discharge | Oxidizer: No if <12% by weight, Yes if > than 12% by weight |
|---|---|---|
| Hazardous Polymerization | May Occur ____ | Will Not Occur __X__ |

**Note:** Sodium Hypochlorite reacts violently with amines and ammonium salts. Solutions are reactive with common cleaning products such as toilet bowl cleaners, rust removers, vinegar, acids, organics and ammonia products to produce hazardous gases such as chlorine and other chlorinated species.

## SECTION 5 POTENTIAL HEALTH EFFECTS AND FIRST AID INFORMATION

**GENERAL:** May cause immediate pain. Exposure to the skin may cause sensitization or other allergic responses. If the eye is not irrigated immediately after it has been exposed permanent eye damage may occur. Strict adherence to first aid measures following any exposure is essential. SPEED IS ESSENTIAL!

| *ROUTE(S) OF ENTRY AND POTENTIAL HEALTH EFFECTS* | *EMERGENCY & FIRST AIDE PROCEDURES* |
|---|---|
| **INHALATION:** Strong irritating to mucous membranes in the nose, throat and respiratory tract. Prolonged contact can cause chronic irritation, pulmonary edema and central nervous system depression. Repeated inhalation exposure may cause impairment of lung function and permanent lung damage. | **If inhaled,** move expose person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. If breathing is difficult, have trained person administer oxygen. Call a poison control center or medical physician for further treatment advice. Have the product label or MSDS with you when calling or going for medical treatment. |
| **SKIN CONTACT:** Prolonged and repeated exposure to dilute solutions often causes irritation, redness, pain and drying and cracking of the skin. Human evidence has indicated that an ingredient in this product can cause skin sensitization. Depending upon the concentration and how soon after exposure the skin is washed with water, skin contact may cause burns and tissue destruction. | **If on skin or clothing,** take off all contaminated clothing and rinse skin immediately with plenty of water for 15-20 minutes. If irritation persists, repeat flushing. Do not transport victim unless the recommended irrigation period is completed unless flushing can be continued during transport. Call a poison control center or medical physician for treatment advice. Have the product label or MSDS with you when calling or going for medical treatment. |
| **EYE CONTACT:** Strongly irritating to eyes. Exposure to vapor can cause tearing, conjunctivitis and burning of the eyes. Eye contact may cause a corneal injury. The severity of the effects depend on the concentration and how soon after exposure the eyes are washed with water. In severe exposure cases, glaucoma, cataracts and permanent blindness may occur. | **If in eyes,** hold eye open and rinse slowly and gently with plenty of water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye for 10-15 minutes. Do not transport victim until the recommended flushing period is completed unless irrigation can be continued during transport. Call a poison control center or medical physician for further treatment advice. Have the product label and/or MSDS with you when calling or going to medical treatment. |
| **INGESTION:** Corrosive. Can cause severe corrosion of and damage to the gastrointestinal tract (including mouth, throat, and esophagus). Exposure is characterized by nausea, vomiting, abdominal pain, diarrhea, bleeding, and/or tissue ulceration. | **If swallowed,** call poison control center or medical physician immediately for treatment advice. Have the product label or MSDS with you when calling or going for medical treatment. Have exposed person sip a glass of water if able to swallow, and dilute immediately by giving milk, melted ice cream, starch paste or antacids such as milk of magnesia. Avoid sodium bicarbonate because of carbon dioxide release. DO NOT INDUCE VOMITING, LAVAGE OR ACIDIC ANTIDOTES unless told to do so by poison control center or medical physician. DO NOT give anything by mouth to an unconscious person. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomitus, rinse mouth and administer more water. |

**NOTE TO PHYSICIAN(S):** Pre-existing medical conditions may be aggravated by exposures affecting target organs. There are no known chronic effects. Probable mucosal damage may contraindicate the use of gastric lavage. In addition to the alkalinity of this product, the continued generation of chlorine gas after ingestion can damage further the stomach mucous, depending on the amount ingested. Consideration may be given to removal of the product from the stomach, taking care to avoid perforation of esophagus or stomach. An ounce of 1% sodium thiosulfate or milk of magnesia is helpful.

## SECTION 6 TOXICOLOGICAL DATA

**ANIMAL DATA:** Inhalation 0.25-hour LC50 - 10.5 mg/L in rats; Acute Dermal LD50 - 10,000 mg/kg in rabbits; Acute Oral LD50 - 8910 mg/kg in rats

**SUMMARY:** The concentrated solution is corrosive to skin, and a 5% solution is a severe eye irritant. Solutions containing more than 5% available chlorine are classified by DOT corrosive (please see section 10 of this MSDS). Toxicity described in animals from single exposures by ingestion include muscular weakness, and hypoactivity. Repeated ingestion exposure in animals caused an increase in the relative weight of adrenal glands in one study, but no pathological changes were observed in two other studies. Long-term administration of compound in drinking water of rats caused depression of the immune system. No adverse changes were observed in an eight week dermal study of a 1% solution in guinea pigs. Tests in animals demonstrate no carcinogenic activity by either the oral or dermal routes. Tests in bacterial and mammalian cell cultures demonstrate mutagenic activity.

**CARCINOGENICITY:** None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as carcinogen.

**MUTAGENICITY:** Sodium Hypochlorite has been shown to produce damage to genetic material when tested in vitro. Studies in vivo have shown no evidence of mutagenic potential for this material. It is judged that the risk of genetic damage is insignificant for sodium hypochlorite because of its biological activity, lack of mutagenicity in vivo, and failure to produce carcinogenic response.

## SECTION 7 FIRE AND EXPLOSION HAZARD DATA

| | | |
|---|---|---|
| **Flash Point:** This product does not flash | | **Flammable Limits (Lower):** Not Applicable |
| **Flammable Limits (Upper):** Not Applicable | | **Auto Ignition Temperature:** Not Applicable |
| **Decomposition Temperature:** Not Applicable | | **Rate of Burning:** Not Available |
| **Explosive Power:** Not Available | **Sensitivity to Mechanical Impact:** Not expected to be sensitive to mechanical impact | **Sensitivity to Static Discharge:** Not expected to be sensitive to static discharge |
| **Fire and Explosion Hazards:** This material is non-flammable but is decomposed by heat and light, causing a pressure build-up which could result in an explosion. When heated, it may release chlorine gas or hydrochloric acid. Vigorous reaction with oxidizable or organic materials may result in fire. | | **Extinguishing Media:** Use agents appropriate for surrounding fire. Foam, dry chemical, carbon dioxide, water fog or spray. If leak or spill has not ignited, use water spray to disperse the vapors and to protect persons attempting to stop the leak. |
| **Fire Fighting Procedures:** Water spray should be used to cool containers and may be used to knock down escaping vapor. Remove storage vessels from the fire zone. | | **Fire Fighting Protective Equipment:** Full protective clothing, including a NIOSH approved self-contained breathing apparatus, must be worn in a fire involving this material. Toxic gas vapors are produced upon decomposition. |

## SECTION 8 ECOLOGICAL INFORMATION

The toxicity and corrosivity of this product is a function of concentration and the concentration's pH.

**ECOTOXICOLOGICAL INFORMATION:** Toxic to aquatic life. 96-hour LC50: fathead minnows: 0.090-5.9 mg/L, bluegill sunfish: 0.10-2.48 mg/L, shore crab: 1.418 mg/L, grass shrimp: 52.0 mg/L, scud: 0.145-4.0 mg/L, water flea: 2.1 mg/L.

**ENVIRONMENTAL EFFECTS:** Do not contaminate domestic or irrigation water supplies, lakes, streams, ponds, or rivers. May be an aesthetic nuisance due to color. Mammals and birds, exposed wildlife would be subject to skin irritation and burns due to the corrosive nature of this material.

## SECTION 9 DISPOSAL CONSIDERATIONS

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State, and Local regulations. Do not burn. Do not flush to surface water or sanitary sewer system. If pH of material is equal to or greater than a 12.5, the material is a RCRA Hazardous Waste D002, corrosive.

## SECTION 10 TRANSPORT INFORMATION

**U.S. DOT Basic Shipping Description:** Hypochlorite Solutions, 8, UN1791, III

**U.S. DOT Hazardous Substance:** Yes, RQ 100 pounds (Sodium Hypochlorite)

**U.S. DOT Marine Pollutant:** No

**U.S. DOT Required Label:** Corrosive (see column 6, 49 CFR §172.101)

**U.S. DOT Packaging Exception:** Yes, if package meets the criteria of a limited quantity or consumer commodity as defined by 49 CFR §171.8, §173.144 and .154, and §172.312 and .316

**N. AMERICAN EMERGENCY GUIDE PAGE NUMBER:** 154

**Transportation Emergency Phone Numbers:** *CHEMTREC 1-800-424-9300*

## SECTION 11 PRECAUTIONS FOR SAFE HANDLING AND STORAGE

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:** Take all precautions to avoid personal contact. Keep container closed except when transferring material. Locate safety shower and eyewash station close to chemical handling area. Use normal good industrial hygiene and housekeeping practices, wash thoroughly after handling. Store in a cool, dry, well-ventilated area, away from incompatibles (minimum distance of 20-25 feet per NFPA Code 1) and direct sunlight. Keep container properly labeled at all times. Vented containers must be used and must be kept closed when not

being used. Long-term storage is impossible without decomposition. Only use containers made from tinted glass, polyethylene & FRP. Keep out of reach of children.

**PROCESS HAZARDS:** Not Available

**STORAGE TEMPERATURE:** Store containers below 29°C and above freezing point. Do not expose sealed containers above 40°C. Try to store in the dark at the lowest possible temperature, but keep from freezing, to slow-down decomposition.

## SECTION 12 EXPOSURE CONTROLS/PERSONAL PROTECTION

**ENGINEERING CONTROLS:** Full handling precautions should be taken at all times. Provide good room ventilation plus local exhaust at points of emission and low level floor exhaust in immediate handling area. Where engineering controls are not feasible, use adequate local exhaust ventilation wherever mist, spray or vapor may be generated.

**PERSONAL PROTECTIVE EQUIPMENT:**

**Eye:** Use chemical safety goggles when there is potential for contact (splashing), faceshield recommended – ANSI Z87.1

**Skin:** Gloves and protective clothing (apron, boots, and bodysuits) made from rubber, vinyl, neoprene or PVC. Standard work clothing closed at the neck and wrist while wearing impervious equipment.

**Respiratory (*Specify Type*):** A NIOSH/MSHA approved air purifying respirator with an acid gas cartridge or canister may be permissible under circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is potential for uncontrolled releases, exposure levels are not known, or other circumstances where air purifying respirators may not provide adequate protection.

**Other:** Eyewash, shower station (ANSI Z358.1) must be provided within the immediate work area.

## SECTION 13 ACCIDENTAL RELEASE MEASURES

Ventilate enclosed area. Collect product for recovery or disposal. For release to land, contain discharge by constructing dikes or applying inert absorbent; for release to water, utilize damming and/or water diversion to reduce the spread of contamination; and, for release to air, vapors may be suppressed by the use of a water fog. All run-off water must be captured for treatment and disposal. Collect contaminated soil and water, and absorbent for disposal. Notify applicable government authority if release is reportable or could adversely affect the environment. Please follow all Local, State and Federal Laws for clean-up and disposal of all contaminated material. **Deactivating Chemicals:** Sodium Sulfite, Sodium Thiosulfate and Sodium Bisulfite.

## SECTION 14 REGULATORY INFORMATION

**OSHA CLASSIFICATION, 29 CFR §1900-1910:**

**Physical Hazards**: Reactivity **Health Hazards**: Acute - Skin Sensitizer, Corrosive

**CERCLA AND SARA REGULATIONS, 40 CFR §300-373:**

**Reportable Quantity** = 100 lb. **CERCLA Hazardous Material:** Yes

**Title III Hazard Classifications:** Acute - yes, Chronic - no, Fire - yes, Reactivity - yes & Sudden Release of Pressure - No. This product may be reportable under the requirements of 40 CFR §370.

**SARA Extremely Hazardous Substance:** No **SARA Toxic Chemical:** No **CA Prop 65:** No

**FDA 21 CFR 178.1010**: Yes, Approved as Sanitizer

**NSF Whitebook (former USDA Approval) Listing: Aqua Guard Chlorinating Sanitizer 10.5% -** 3D, B1, B2, D1, D2, G4, G7, GX, Q4, **Aqua Guard Bleach 12.5% -** 3D, B1, B2, D1, D2, G4, GX, Q4

**EPA "CLEAN AIR ACT":** This product does not contain nor is it manufactured with ozone depleting substances. It is not defined as a Hazardous Air Pollutant per 40 CFR 112.

**EPA Pesticide:** The 10.5% and 12.5% sodium hypochlorite products are registered with the U.S. EPA as a pesticide, as required under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). It is a violation of Federal law to use this product for pesticidal applications in a manner inconsistent with the FIFRA labeling.

**NPCA-HMIS RATING:** HEALTH: 3 FLAMMABILITY: 0 REACTIVITY: 2

**NFPA RATING:NONE AT THIS TIME**

## SECTION 15 REFERENCES

Suppliers' Material Safety Data Sheets and EPA Labeling Requirements
Olin and OxyChem Sodium Hypochlorite Handbook
Chlorine Institute Sodium Hypochlorite Pamphlet #96
Chlorine Institute Product Stewardship Bulletins for Sodium Hypochlorite

PETRO-CANADA

# Material Safety Data Sheet

| NFPA | HMIS (U.S.A.) | | Rating | Protective Clothing | DOT (pictograms) |
|---|---|---|---|---|---|
|   | Health Hazard | 2* | 0 Insignificant<br>1 Slight<br>2 Moderate<br>3 High<br>4 Extreme |  |  |
| | Fire Hazard | 1 | | | |
| | Reactivity | 0 | | | |
| | Personal Protection | H | | | |

## *Section I. Chemical Product and Company Identification*

| | | | |
|---|---|---|---|
| **Product Name** | **ANTIFREEZE** | **Code** | W269 |
| | | **DSL** | On the DSL. |
| **Synonym** | Universal Antifreeze, Radiator Antifreeze, Diesel Antifreeze, Petro-Canada Antifreeze-Coolant, Petro-Canada Heavy Duty Antifreeze-Coolant, Pre-Mix Antifreeze, Petro-Canada Premium Radiator Antifreeze. | **TSCA** | On TSCA list. |
| **Manufacturer** | PETRO-CANADA<br>P.O. Box 2844<br>Calgary, Alberta<br>T2P 3E3 | **In case of Emergency** | Petro-Canada: 403-296-3000<br>Canutec Transportation: 613-996-6666<br>Poison Control Centre: Consult local telephone directory for emergency number(s). |
| **Material Uses** | Used as an engine antifreeze coolant. | | |

## *Section II. Composition and Information on Ingredients*

| | | | *Exposure Limits (ACGIH)* | | |
|---|---|---|---|---|---|
| **Name** | **CAS #** | **% (V/V)** | **TLV-TWA(8 h)** | **STEL** | **CEILING** |
| 1) Ethylene glycol | 107-21-1 | ≥55 | Not established | Not established | 100 mg/m³ (aerosol) |
| 2) Sodium tetraborate pentahydrate | 1330-43-4 | ≤5 | 1 mg/m³ | Not established | Not established |

**Manufacturer Recommendation** Not applicable

**Other Exposure Limits** Consult local, state, provincial or territory authorities for acceptable exposure limits.

## *Section III. Hazards Identification.*

**Potential Health Effects** Contact can cause slight irritation of skin, eyes and respiratory tract. Extremely dangerous in case of ingestion. For more information, refer to Section 11.

## *Section IV. First Aid Measures*

| | |
|---|---|
| **Eye Contact** | IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek medical attention. |
| **Skin Contact** | Remove contaminated clothing - launder before reuse. Wash gently and thoroughly the contaminated skin with running water and non-abrasive soap. Seek medical attention. |
| **Inhalation** | Evacuate the victim to a safe area as soon as possible. If the victim is not breathing, perform artificial respiration. Allow the victim to rest in a well ventilated area. Seek medical attention. |
| **Ingestion** | DO NOT induce vomiting because of danger of aspirating liquid into lungs. Seek medical attention. |
| **Note to Physician** | Not available |

## *Section V. Fire-fighting Measures*

| | | | |
|---|---|---|---|
| **Flammability** | May be combustible at high temperature. | **Flammable Limits** | Lower: 3.2%, Upper: 15.3% |
| **Flash Points** | Closed Cup: 116°C (Tagliabue)<br>Open Cup: 116°C (Cleveland) | **Auto-Ignition Temperature** | 413°C |
| **Fire Hazards in Presence of Various Substances** | Combustible in presence of open flames and sparks. | **Explosion Hazards in Presence of Various Substances** | Not a product presenting risks of explosion. |
| **Products of Combustion** | Carbon oxides (CO, CO2), smoke and irritating vapours as products of incomplete combustion. | | |
| **Fire Fighting Media and Instructions** | SMALL FIRE: Use DRY chemicals, CO2, water spray or foam.<br>LARGE FIRE: Use water spray, fog or foam. DO NOT use water jet. | | |

*Continued on Next Page*

*Available in French*

## Section VI. Accidental Release Measures

| | |
|---|---|
| **Material Release or Spill** | Small spill or leak: Dilute with water and mop up or absorb with an inert DRY material and place in an appropriate waste disposal container.<br>Large spill or leak: Absorb with an inert material and put the spilled material in an appropriate waste disposal. Dispose of in accordance with regional regulations. |

## Section VII. Handling and Storage

| | |
|---|---|
| **Handling** | Avoid contamination with reactive substances. After handling, always wash hands thoroughly with soap and water. |
| **Storage** | Keep container dry. Keep container tightly closed. Keep in a cool, well-ventilated place. |

## Section VIII. Exposure Controls/Personal Protection

| | |
|---|---|
| **Engineering Controls** | For normal application, special ventilation is not necessary. If user's operations generate vapours or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit. Make-up air should always be supplied to balance air removed by exhaust ventilation. Ensure that eyewash station and safety shower are close to work-station. |
| **Personal Protection - Eyes** | ***The selection of personal protective equipment varies, depending upon conditions of use.*** Eye protection (i.e., safety glasses, safety goggles and/or face shield) should be determined based on conditions of use. If product is used in an application where splashing may occur, the use of safety goggles and/or a face shield should be considered. |
| **Body** | Wear appropriate clothing to prevent skin contact. As a minimum long sleeves and trousers should be worn. |
| **Respiratory** | Where concentrations in air may exceed the occupational exposure limits given in Section 2 (and those applicable to your area) and where engineering, work practices or other means of exposure reduction are not adequate, NIOSH approved respirators may be necessary to prevent overexposure by inhalation. |
| **Hands** | Wear appropriate chemically protective gloves. When handling hot product ensure gloves are heat resistant and insulated. |
| **Feet** | Wear appropriate footwear to prevent product from coming in contact with feet and skin. |

## Section IX. Physical and Chemical Properties

| | | | |
|---|---|---|---|
| **Physical State and Appearance** | Clear viscous liquid. | **Viscosity** | Not available |
| **Colour** | Green. | **Pour Point** | Not available |
| **Odour** | Odourless. | **Softening Point** | Not applicable. |
| **Odour Threshold** | Not available | **Dropping Point** | Not applicable. |
| **Boiling Point** | 129 to 197°C (264 to 387°F) | **Penetration** | Not applicable. |
| **Density** | 1.115 to 1.145 (Water = 1) | **Oil / Water Dist. Coeff.** | Not available |
| **Vapour Density** | 2.1 (Air=1). | **Ionicity (in water)** | Not available |
| **Vapour Pressure** | 0.06 mmHg @ 20°C (68°F). | **Dispersion Properties** | Not available |
| **Volatility** | 0% (w/w) | **Solubility** | Soluble in water, methanol and diethyl ether. |

## Section X. Stability and Reactivity

| | | | |
|---|---|---|---|
| **Corrosivity** | Not available | | |
| **Stability** | The product is stable. | **Hazardous Polymerization** | Will not occur under normal working conditions. |
| **Incompatible Substances / Conditions to Avoid** | Reactive with oxidizing agents, acids and alkalis. | **Decomposition Products** | May release COx, smoke and irritating vapours when heated to decomposition. |

## Section XI. Toxicological Information

| | |
|---|---|
| **Routes of Entry** | Eye contact and ingestion. |
| **Acute Lethality** | LD50: 4700 mg/kg (oral/rat). [Ethylene Glycol]<br>LD50: 9530 mg/kg (dermal/rabbit). [Ethylene Glycol] |
| **Chronic or Other Toxic Effects** | |
| Dermal Route: | Slightly hazardous in case of skin contact (irritant). |
| Inhalation Route: | Slightly hazardous in case of inhalation (lung irritant). Can cause nausea, headaches and vomiting. |
| Oral Route: | Extremely dangerous in case of ingestion. |
| Eye Irritation/Inflammation: | Slightly hazardous in case of eye contact (irritant). |
| Immunotoxicity: | Not available |
| Skin Sensitization: | Not available |
| Respiratory Tract Sensitization: | Not available |
| Mutagenic: | Not available |

*Continued on Next Page*

*Available in French*

| | |
|---|---|
| Reproductive Toxicity: | Not available |
| Teratogenicity/Embryotoxicity: | Fetotoxic and teratogenic in mice at levels below maternal toxicity. |
| Carcinogenicity (ACGIH): | ACGIH A4: not classifiable as a human carcinogen. |
| Carcinogenicity (IARC): | Not available |
| Carcinogenicity (NTP): | Not available |
| Carcinogenicity (IRIS): | Not available |
| Carcinogenicity (OSHA): | Not available |
| **Other Considerations** | The substance may be toxic to kidneys and liver. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs. |

## *Section XII. Ecological Information*

| | | | |
|---|---|---|---|
| **Environmental Fate** | Not available | **Persistance/ Bioaccumulation Potential** | Not available |
| **BOD5 and COD** | Not available | **Products of Biodegradation** | Not available |
| **Additional Remarks** | No additional remark. | | |

## *Section XIII. Disposal Considerations*

| | |
|---|---|
| **Waste Disposal** | Preferred waste management priorities are: (1) recycle or reprocess; (2) incineration with energy recovery; (3) disposal at licensed waste disposal facility. Ensure that disposal or reprocessing is in compliance with government requirements and local disposal regulations. Consult your local or regional authorities. |

## *Section XIV. Transport Information*

| | | | |
|---|---|---|---|
| **DOT Classification** | Not a DOT controlled material (United States). | **Special Provisions for Transport** | Not applicable. |

## *Section XV. Regulatory Information*

| | | | |
|---|---|---|---|
| **Other Regulations** | This product is acceptable for use under the provisions of WHMIS-CPR. All components of this formulation are listed on the CEPA-DSL (Domestic Substances List).<br><br>All components of this formulation are listed on the US EPA-TSCA Inventory.<br><br>This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.<br><br>Please contact Product Safety for more information. | | |
| **DSD/DPD (EEC)** | Not evaluated. | **WHMIS (Canada)** | D-2A |
| **ADR (Europe) (Pictograms)** | NOT EVALUATED FOR EUROPEAN TRANSPORT<br><br>NON ÉVALUÉ POUR LE TRANSPORT EUROPÉEN | **TDG (Canada) (Pictograms)** |  |

## *Section XVI. Other Information*

**References** Available upon request.
* Marque de commerce de Petro-Canada - Trademark

**Glossary**

ACGIH - American Conference of Governmental Industrial Hygienists
ADR - Agreement on Dangerous goods by Road (Europe)
ASTM - American Society for Testing and Materials (
BOD5 - Biological Oxygen Demand in 5 days
CAN/CGA B149.2 Propane Installation Code
CAS - Chemical Abstract Services
CEPA - Canadian Environmental Protection Act
CERCLA - Comprehensive Environmental Response, Compensation and Liability Act
CFR - Code of Federal Regulations
CHIP - Chemicals Hazard Information and Packaging Approved Supply List
COD5 - Chemical Oxygen Demand in 5 days
CPR - Controlled Products Regulations
DOT - Department of Transport
DSCL - Dangerous Substances Classification and Labeling (Europe)
DSD/DPD - Dangerous Substances or Dangerous Preparations Directives (Europe)
DSL - Domestic Substance List
EEC/EU - European Economic Community/European Union
EINECS - European Inventory of Existing Commercial Chemical Substances
EPCRA - Emergency Planning and Community Right to Know Act
IRIS - Integrated Risk Information System
LD50/LC50 - Lethal Dose/Concentration kill 50%
LDLo/LCLo - Lowest Published Lethal Dose/Concentration
NAERG'96 - North American Emergency Response Guide Book (1996)
NFPA - National Fire Prevention Association
NIOSH - National Institute for Occupational Safety & Health
NPRI - National Pollutant Release Inventory
NSNR - New Substances Notification Regulations (Canada)
NTP - National Toxicology Program
OSHA - Occupational Safety & Health Administration
PEL - Permissible Exposure Limit
RCRA - Resource Conservation and Recovery Act
SARA - Superfund Amendments and Reorganization Act
SD - Single Dose
STEL - Short Term Exposure Limit (15 minutes)
TDG - Transportation Dangerous Goods (Canada)
TDLo/TCLo - Lowest Published Toxic Dose/Concentration
TLm - Median Tolerance Limit
TLV-TWA - Threshold Limit Value-Time Weighted Average
TSCA - Toxic Substances Control Act
USEPA - United States Environmental Protection Agency

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FDA - Food and Drug Administration
FIFRA - Federal Insecticide, Fungicide and Rodenticide Act
HCS - Hazardous Communication System
HMIS - Hazardous Material Information System
IARC - International Agency for Research on Cancer
USP - United States Pharmacopoeia
WHMIS - Workplace Hazardous Material Information System

**For Copy of MSDS**
**Western Canada, telephone: 403-296-4158; fax: 403-296-6551**
**Ontario & Central Canada, telephone: 1-800-668-0220; fax: 1-800-837-1228**
**Quebec & Eastern Canada, telephone: 514-640-8308; fax: 514-640-8385**

**For Product Safety Information: (905) 804-4752**

**Prepared by Product Safety - TAR on 7/3/2001.**

**Data entry by Product Safety - JDW.**

# MSDS
## (Material Safety Data Sheet)

## SECTION #1 PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME: **TOTAL ATF 33**

CHEMICAL NAME AND SYNONYMS: MIXTURE

MANUFACTURER/SUPPLIER'S NAME: TOTAL LUBRICANTS CANADA INC.
220, LAFLEUR
LASALLE, QUEBEC
H8R 4C9
Tel.: (514) 595-7579 or 1-800-463-3955

24 HOURS EMERGENCY: Call CHEMTREC 1-800-424-9300 or 703-527-3887

PRODUCT USE: AUTOMATIC TRANSMISSION FLUID (ATF TYPE F)

WHMIS CLASS AND DESCRIPTION -

These products are not regulated by the WHMIS.

## SECTION #2 COMPOSITION/INFORMATION ON INGREDIENTS

| NOM | % | No CAS |
|---|---|---|
| --- | -- | --- |

ADDITIONAL REGULATORY INFORMATION

- No hazardous ingredients as defined by the Canadian Hazardous Products Act (BILL C70) or by OSHA 29 CFR 1910.1200.

- Canadian DSL status: All ingredients are listed.

* No components of this product have been found carcinogenic or potential carcinogen. Does not contain ingredients that are listed as carcinogenic or potential carcinogen by OSHA, IARC or the U.S. National Toxicology Program (NTP). This product or its components have no teratogenic or mutagenic effects known.

## SECTION #3 PHYSICAL DATA

| | |
|---|---|
| PHYSICAL STATE AT 25°C | Liquid |
| POUR POINT: | < -40°C |
| BOILING POINT: | > 260°C |
| DENSITY (g/cm$^3$ at 15°C): | 0,86 to 0,87 |
| VAPOR PRESSURE (mm Hg at 20°C): | Negligible |
| VISCOSITY (cSt at 100°C): | 7.0 to 8.0 |
| EVAPORATION RATE: | Negligible |
| SOLUBILITY IN WATER: | Negligible |
| APPEARANCE ET ODOR: | Red liquid with characteristic odor |

## SECTION #4 STABILITY AND REACTIVITY

| | |
|---|---|
| **STABILITY**: | Stable |
| **CONDITIONS TO AVOID**: | Avoid excessive heat, open flames and formation of oil mist. |
| **PRODUCTS TO AVOID**: | Oxidizing agents, strong acids and bases. |
| **HAZARDOUS DECOMPOSITION PRODUCTS**: | N/A |
| **POLYMERIZATION**: | Will not occur |

## SECTION #5 FIRE FIGHTING MEASURES

| | |
|---|---|
| FLASH POINT (COC): | > 180°C |
| FLAMMABILITY LIMITS IN AIR: | LEL: N/A |
| (% PER VOLUME) | UEL: N/A |
| AUTOIGNITION TEMPERATURE (°C): | N/A |
| EXTINGUISHING MEDIA: | Foam, Dry chemical and $CO_2$ |
| HAZARDOUS COMBUSTION PRODUCTS: | Normal combustion products, CO and $CO_2$. |
| SPECIAL FIRE FIGHTING PROCEDURES: | Do not enter confined fire space without adequate protective clothing and an approved positive self-contained breathing apparatus. Use water to cool fire exposed containers. |

## SECTION #6 TOXICOLOGICAL INFORMATION

| SPECIES | $LD_{50}$ ORAL | $LD_{50}$ DERMAL | $LC_{50}$ INHALATION | HRS |
|---|---|---|---|---|
| Rat | > 5000 mg/Kg | > 2000 mg/Kg | N/A | --- |

**INHALATION**: Prolonged exposure to high vapor concentration of this product can cause headache, dizziness and nausea. Short-term overexposure can cause an irritation to the respiratory passages.
Exposure limit to the mist = 5 $mg/m^3$ (TLV/TWA, ACGIH).

**CONTACT WITH EYES**: May cause eye irritation.

**SKIN CONTACT**: This product should not cause skin irritation. Prolonged and repeated contact with this product can cause skin drying, which may result in skin irritation and dermatitis.

**INGESTION**: May cause nausea.

## SECTION #7 ACCIDENTAL RELEASE MEASURES

**SPILL AND LEAK PROCEDURES**: Eliminate all ignition sources. Stop leak only if safe to do so. Absorb residue or small spills with absorbent material and remove to non-leaking containers for disposal.

## SECTION #8 HANDLING AND STORAGE

**STORAGE AND HANDLING**: Store in cool, dry, ventilated area, away from heat and ignition sources. Use good personal hygiene. Always keep the container close.

## SECTION #9 EXPOSURE CONTROLS / PERSONAL PROTECTION

**VENTILATION**: Mechanical ventilation is recommended.

**RESPIRATORY PROTECTION**: If mist present, chemical cartridge respirator is recommended.

**GLOVES**: Resistant gloves (Viton, Nitrile, Neoprene) are recommended when handling this material.

**EYE PROTECTION**: Chemical safety goggles are recommended.

**OTHER PROTECTION**: In confined spaces or where the risk of skin exposure is higher, resistant clothing or apron should be worn.

## SECTION #10 DISPOSAL CONSIDERATIONS

**WASTE DISPOSAL METHODS**: Consult relevant local authorities. Reclaim or dispose of at a licensed waste disposal company. Incinerate with approval of appropriate local authority.

## SECTION #11 FIRST AID

**INHALATION**: Remove person to fresh air. See a physician if irritation persists.

**CONTACT WITH EYES**: Flush immediately with water for at least 15 minutes.

**CONTACT WITH SKIN**: Wash contaminated skin with mild soap and water. See a physician if irritation persists.

**INGESTION**: This product has a low toxicity. May cause nausea and have a laxative effect. Do not induce vomiting. Contact an Anti-Poison Center (1-800-463-5060).

## SECTION #12 HAZARDS IDENTIFICATION

**INHALATION**: Prolonged exposure to high vapor concentration of this product can cause headache, dizziness and nausea. Short-term overexposure can cause an irritation to the respiratory passages.
Exposure limit to the mist = 5 $mg/m^3$ (TLV/TWA, ACGIH).

**CONTACT WITH EYES**: May cause eye irritation.

**SKIN CONTACT**: This product should not cause skin irritation. Prolonged and repeated contact with this product can cause skin drying, which may result in skin irritation and dermatitis.

**INGESTION**: May cause nausea.

## SECTION #13 ECOLOGICAL INFORMATION

**ENVIRONMENTAL EFFECTS:**

Do not allow product or runoff from fire control to enter storm or sanitary sewers, lakes, rivers, streams, or public waterways. Block off drains and ditches. Provincial regulations require and federal regulations may require that environmental and/or other agencies be notified of a spill incident. Spill area must be cleaned and restored to original condition or to the satisfaction of authorities.

**BIODEGRADABILITY: NOT READILY BIODEGRADABLE.**

## SECTION #14 TRANSPORTATION INFORMATION

TRANSPORTATION (TDG)

| | |
|---|---|
| SHIPPING NAME: | None |
| UN NUMBER: | None |
| CLASS DESCRIPTION: | None |

## SECTION #15 REGULATORY INFORMATION

This product has been classified in accordance with the hazard criteria of the Controlled Products. Regulations (CPR) and the MSDS contains all the information required by the CPR.
THIS PRODUCT IS NOT A WHMIS CONTROLLED SUBSTANCE.
DSL/NDSL Status: This product, or all components, are listed on the Domestic Substances List, as required under the Canadian Environmental Protection Act. This product and/or all components are listed on the U.S. EPA TSCA Inventory.
Other Regulatory Status: No Canadian federal standard; however, for general discharge guidance, federal installations limited to 15 mg/L for total oil and grease. Provincial criteria are likely and should be requested when notifying provincial authorities.

## SECTION #16 ADDITIONAL INFORMATION

Prepared by: Francis Bossé, Chemist
Revised on: 21 JUNE 2011
We believe that technical information and recommendations contained herein to be reliable and accurate. However, we provide these data without warranty or guarantee of any kind, expressed or implied. We assume no responsibility for any loss, damage, or expense, direct or consequential, arising from the use of products described herein.