



SPILL CONTINGENCY PLAN

DEASE ARM, GREAT BEAR LAKE

EFFECTIVE DATE: JANUARY 1, 2024

Report Prepared for:
GREAT BEAR LAKE LODGE

Prepared by:
PLUMMER'S ARCTIC LODGES

Version 4.1
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Great Bear Lake, Northwest Territories

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VERSION CONTROL & REVISIONS

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V1.0	14-Feb-2008	Final	Bear_SpillPlan 2008-02-14 final V1.0.docx	Original Document
V2.0	09-Feb-2012	Final	Bear_SpillPlan 2012-02-09 final V2.0.docx	Updated Contacts
V3.0	04-Mar-2019	Final	Bear_SpillPlan 2018-03-04 final V3.0.docx	Table of contents, 3. Emergency Numbers, 7. Facility Information, Formatting
V4.0	17-Apr-2019	Final	Bear_SpillPlan 2019-04-17 final V4.0.docx	Comments addressed, due to the volume of changes made a separate table has been made documenting changes for this version.
V4.1	01-Jan-2024	Final	Great Bear Lake Lodge – Spill Contingency Plan.docx	Formatting and comments addressed.

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1 INTRODUCTION AND PROJECT DETAILS

Great Bear Lake Lodge Ltd. (“**Great Bear Lake Lodge**”) has prepared this spill contingency plan (the “**Plan**”) for tourism activities being undertaken at their camp at the Dease Arm on Great Bear Lake, Northwest Territories (the “**Lodge**”). The Plan demonstrates that Great Bear Lake Lodge has appropriate response capabilities and measures in place to effectively address potential spills at the Lodge.

1.1 Company Name, Location, and Mailing Address

Great Bear Lake Lodge Ltd.
Mailing Address: 950 Bradford St., Winnipeg, MB, R3H 0N5
Phone: (204) 774-5775 Fax: (204) 783-2320
Email: chuk@plummerslodges.com
Attention: Chuk Coulter, General Manager

1.2 Distribution List

Table 1 – Distribution List

Name	Position
Chuk Coulter	General Manager
Reid Stoyberg	Environmental Consultant
Bonnie Bergsma	Regulatory Specialist
Laurel McDonald	Water Resources Officer

1.3 Purpose and Scope

The purpose of this Plan is to outline potential response actions for spills of any size, including a worst-case scenario, for the Lodge. 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.

1.4 Company Environmental Policy

Great Bear Lake Lodge is committed to the concept of sustainable development and the protection of the environment and human health. The company’s environmental, health and safety policy is to:

- protect employees, the public, and the environment;
- fully comply with all applicable legislation, regulations, and authorizations;
- work proactively with federal, territorial, and Aboriginal governments, other relevant organizations, and the general public, on all aspects of environmental protection;
- anticipate future spill control requirements and make provisions for them; and
- keep employees, contractors, inspectors, Land and Water Board personnel, appropriate governments (Aboriginal, federal, and territorial), and the public informed of any changes at the site or with project activities.

The Plan is presented to all staff during their on-site orientation sessions. All employees and contractors are aware of the locations of the Plan on the site at the Lodge. During the orientation meeting, training sessions are scheduled to ensure employees have an understanding of the steps to be undertaken in the event of a spill. All employees and contractors are shown where spill kits are stored, are aware of their contents and are trained in using spill equipment and responding to spills. The company is committed to keeping personnel up to date on the latest technologies and spill response methods.

1.5 Project Description

The Lodge is used as a camp for a remote fishing lodge operation. Permits and licences are in place for the company's operation. The camp operates on a seasonal basis from June to September and is shut down for the remainder of the year.

1.6 Site Description

The Lodge is located approximately 535 kilometres northwest of Yellowknife at the Dease Arm of Great Bear Lake, at 66°42'30"N, 119°41'00"W. It is a remote area and there are no adjacent communities or inhabitants. Thus, the only people who would be immediately affected by a spill would be employees or guests. Deline is the nearest community approximately 240 km to the southwest. Figure 1 illustrates the location of the Lodge on a 1:50,000 scale.



Figure 1. Site Location Topographic Map.



Figure 2. Detailed site map.

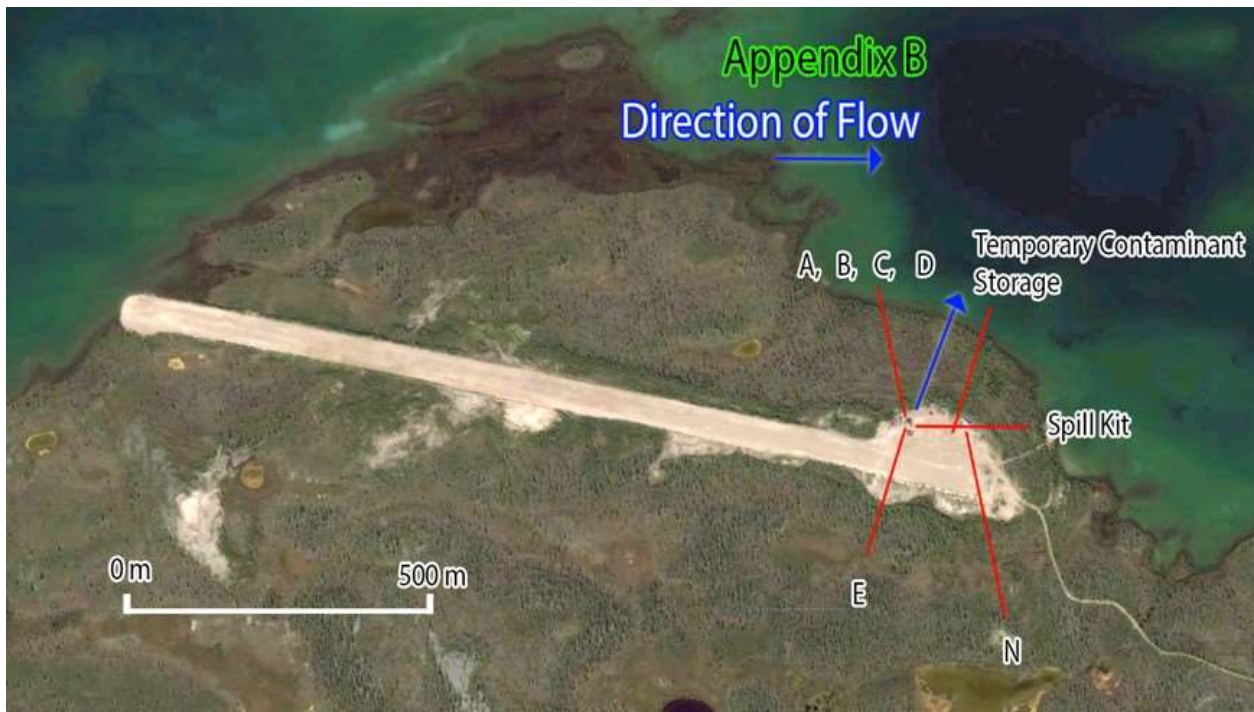


Figure 3. Detailed fuel storage map.

1.7 List of Hazardous Materials On-Site

There are two fuel storage areas on-site (Figures 2 and 3). Smaller amounts of other petroleum products and oils/lubricants are stored on-site at the Lodge in various storage buildings. Table 1 presents a summary of the fuel storage on-site, the type of hazardous material, the capacity stored, and its purpose.

Table 1 - Fuel Storage Summary

Map Label	Product	Capacity (L)	Purpose
A	P50 Diesel	67000	Bulk Diesel Storage
B	Gasoline	67000	Bulk Gasoline Storage
C	Gasoline	67000	Bulk Gasoline Storage
D	P50 Diesel	67000	Bulk Diesel Storage
E	P50 Diesel	9000	Bulk Diesel Storage
F	Gasoline	7800	Boat Fuel
G	Gasoline	2100	Vehicle Gas
H	P50 Diesel	4500	Lodge Heating Fuel
I	Jet A	8800	Airplane Fuel
J	Gasoline (Mixed)	450	Boat Fuel
K	P50 Diesel	4500	Generator Fuel
L	P50 Diesel	9000	Generator Fuel
M	P50 Diesel	2200	Generator Fuel
N	Used Waste Oil Products	25 L Buckets	Temporary Storage
-	Propane	100lb Cylinders	Multiple

Waste oil is stored in its original containers or amalgamated in empty containers of various sizes that can be sealed and made safe for transport by air. Those containers are stored at the airstrip in a designated storage shed and shipped out by plane for off-site disposal at an appropriate waste facility.

Other hazardous materials found on-site in very small quantities are stored in various buildings and/or the kitchen. These include lubricants/oil/grease for maintenance of motorized equipment and general cleaning products for kitchen/bathroom/office use.

Motorized equipment on site includes three pick-up trucks, a school bus, a water truck, a grader, Cat 977, a backhoe, and a dump truck. There are also 25, 18-foot aluminum boats with 40 horsepower outboard motors.

Material Safety Data Sheets for each hazardous material present at the Lodge are included in Appendix A.

1.8 Existing Preventative Measures

Great Bear Lake Lodge recognizes that preparing for an emergency is imperative due to the nature of the materials stored on-site and the remoteness of the Lodge. In addition to the preventative measures set out below, adequate training of staff and contractors is paramount.

All hazardous materials arrive by air or barge as needed throughout the year. They are unloaded by airplane pilots, barge operators, and Great Bear Lake Lodge staff and carefully placed in the fuel storage areas.

The fuel storage area consists of steel tanks within berms as well as double-walled meridian tanks of various sizes. For tank details and locations please refer to Figures 2 and 3 and Table 1.

Spill kits are located wherever fuel is stored or used (see Figures 2-3). See Section 4.1 for details on spill kit contents. Portable drip trays and appropriately sized fuel transfer hoses with pumps are used when refuelling ATVs, or other motorized equipment, to avoid any leaks/drips onto the land.

The camp manager or designated fuel monitor conducts daily visual inspections to check for leaks or damage to the fuel storage containers/lines, as well as for stained or discoloured soils around the fuel storage areas/lines and adjacent motorized equipment. For example, lids/caps are checked for tight seals. Regular maintenance and oil checks of all motorized equipment are also undertaken to avoid preventable leaks.

1.9 Additional Copies

A copy of the Plan is kept on-site in the manager's office. A copy is also held at the company's main office/headquarters in Winnipeg, Manitoba and with the Land and Water Board. Additional copies of the Plan can be obtained by contacting the company directly at the phone number, fax or email presented in Section 1.1.

1.10 Process for Staff Responses to Media and Public Inquiries

Great Bear Lake Lodge has established procedures for dealing with media and public inquiries. All inquiries are to be directed to the General Manager, Chuk Coulter. If the General Manager is not available, there will be another staff member available to act in this position. If a reporter or member of the public arrives at the site unexpectedly, the official in charge of responding to their questions will be the camp manager or acting camp manager. Before responding to their questions, they should make every effort possible to contact Chuk Coulter to discuss the situation.

The camp manager should always keep Chuk Coulter informed of any news or updates of potential interest to the media or general public, such that the company is prepared to deal with inquiries at any time.

If a spill has occurred, an NWT Spill Report needs to be filled out (see Appendix B). This information is available for the public to view upon request by contacting the NWT Spill Line or by viewing the GNWT Hazardous Materials Spills Database online at http://www.e-engine.ca/eps_spillreport/.

2 RESPONSE ORGANIZATION

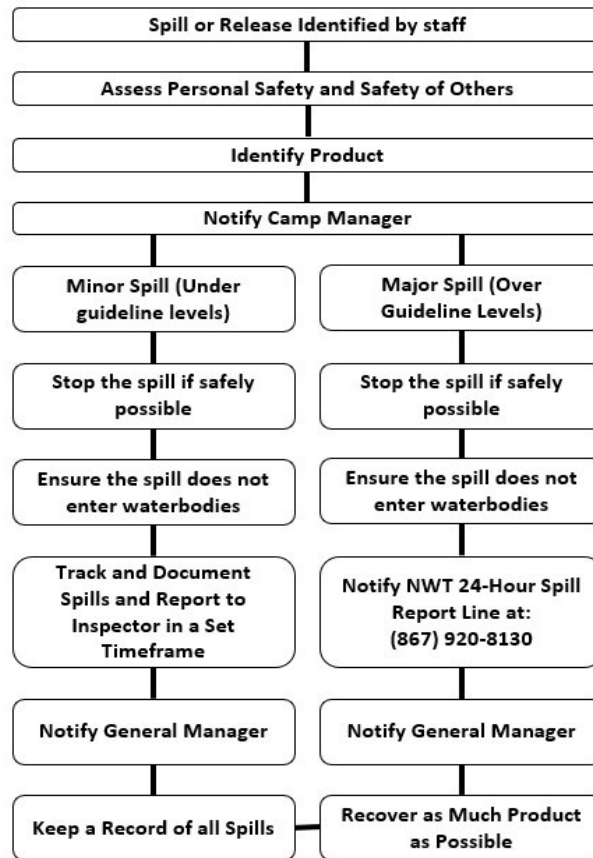


Figure 4. Flow Chart of Response Organization

The flow chart depicted in Figure 4 identifies the response organization and when applicable their alternates, as well as the chain of command for responding to a spill or release. The duties of various response personnel are summarized, contact information is provided including 24-hour phone numbers for responsible people and the location of communications equipment on site is discussed.

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 outlined in Appendix C. It must be reported to the NWT 24-Hour Spill Report Line at 867-920-8130. Any spills less than these quantities do not need to be reported immediately to the spill reporting line. Rather, these minor spills will be tracked and documented by the company and submitted to the appropriate authority either immediately upon request or at a pre-determined reporting interval. If there is any doubt that the quantity spilled exceeds reportable levels, the spill will be reported to the NWT 24-Hour Spill Report Line.

Emergency satellite phones are located in the main office. In the event of a spill involving danger to human life, these phones will be used to contact emergency response personnel in Yellowknife. In addition, site personnel have access to a satellite wireless signal and In-Reach satellite communicators that may also be used to communicate with emergency personnel.

Following reporting the spill to the camp manager, he/she will report spills to the NWT 24-Hour Spill Line as necessary. The camp manager will also inform the general manager about tracking spills in company databases and notify the general manager in the event of media inquiries.

3 ACTION PLAN

3.1 Potential Spill Sizes and Sources for Each Hazardous Material on Site

In Table 2, a list of potential discharge events, with associated discharge volumes and directions is presented for the primary hazardous materials stored on site. The most likely discharge volume is indicated, and the spill clean-up procedures will focus on spills of this quantity. A worst-case scenario is also presented. Specific discharge rates are not indicated for each fuel type as these would vary from a few minutes to several hours, based on the source of the leak or puncture.

Table 2 – Potential Spill Scenarios

Material (Sources)	Potential Discharge Event	Discharge Volume (Worst Case)	Direction of Potential Discharge
Diesel Fuel (Heavy Equipment, heating stoves)	<ol style="list-style-type: none"> 1) Overpumping of fuel 2) Minor leaking fuel drum/tank in/outside fuel storage area 3) Large puncture, fast leaking drum/tank in/outside fuel storage area. 4) All drums/tanks punctured and leaking at once (very unlikely). 	52000 L	<p>Toward the lake from the fuel storage area.</p> <p>In camp on flat ground from the fuel storage area.</p>
Gasoline (Trucks, boats)	<ol style="list-style-type: none"> 1) Overfilling of trucks or boats (small spill). 2) Leak from tank or hose while filling trucks or boats. 3) Minor leaking tank/drum in/outside fuel storage area. 4) Large puncture, fast leaking tank/drum in/outside of fuel storage area. 5) All tanks/drums punctured and leaking at once (very unlikely) 	25000 L	In camp on flat ground, from the fuel storage area with potential underground seepage to Great Bear Lake.
Propane (Kitchen appliances, cylinders)	<ol style="list-style-type: none"> 1) Leak while connected to kitchen or laundry appliances. 2) A minor leaking cylinder in/outside the fuel storage area. 3) Large puncture, fast leaking cylinder in/outside fuel storage area. 4) All cylinders punctured and leaking at once (very unlikely). 	6000 lbs	In camp on flat ground, from the fuel storage area or communal buildings.
Jet A Fuel	<ol style="list-style-type: none"> 1) Overfilling of aircraft. 2) Leak from tank or hose while filling aircraft. 	8000 L	In camp on flat ground, from fuel storage area with potential

	<ul style="list-style-type: none"> 3) Minor leaking tank or drum in/outside fuel storage area. 4) Large puncture, fast leaking tank or drum in/outside fuel storage area. 5) All tanks or drums punctured leaking at once (very unlikely). 		<p>underground seepage to Great Bear Lake.</p> <p>In Great Bear Lake while refueling single turbo otters.</p>
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Waste oil stored in empty containers could potentially leak. The number of waste oil containers would be quite limited as they would be shipped out by plane as they are filled up. The risk of a spill from a waste oil container impacting the environment is very low as waste oil is stored in a contained site designated for certain wastes.

3.2 Potential Environmental Impacts of Spill

Overall, for all hazardous materials discussed below, impacts are lower during winter as snow is a natural sorbent and ice forms a barrier limiting or eliminating soil or water contamination, thus spills can be more readily recovered when identified and reported.

3.2.1 Gasoline

Environmental impacts: Gasoline may be harmful to wildlife and aquatic life. It is not readily biodegradable and has the potential for bioaccumulation in the environment. Gasoline is quick to volatilize. Runoff into water bodies must be avoided.

Worst case scenario: All fuel drums/tanks were punctured or opened simultaneously, and contents seeped into surrounding soil and water bodies. This could cause illness or death to aquatic life and indirectly affect wildlife feeding from the land and water.

3.2.2 Diesel Fuel

Environmental impacts: Diesel may be harmful to wildlife and aquatic life. It is not readily biodegradable and has the potential for bioaccumulation in the environment. Diesel burns slowly and thus risk to the environment is reduced during recovery as the burn can be more readily contained compared with volatile fuels. Runoff into water bodies must be avoided.

Worst case scenario: All fuel drums were punctured or opened simultaneously, and contents seeped into surrounding soil and water bodies. This could cause illness or death to aquatic life and indirectly affect wildlife feeding from the land and water.

3.2.3 Jet A Fuel

Environmental impacts: Jet B fuel may be harmful to wildlife and aquatic life. It is not readily biodegradable and has the potential for bioaccumulation in the environment. Jet B fuel volatilizes relatively quickly. Runoff into water bodies must be avoided.

Worst case scenario: All fuel drums were punctured or opened simultaneously and contents seeped into surrounding soil and water bodies. This could cause illness or death to aquatic life and indirectly affect wildlife feeding from the land and water.

3.2.4 Propane

Environmental impacts: Propane may be harmful to wildlife and the surrounding environment. It has the potential to accumulate in the environment. Propane is extremely volatile and is the most flammable material stored on-site, thus immediate impacts on the surrounding environment are a concern.

Worst case scenario: All cylinders were punctured or failed simultaneously, and contents leaked into the surrounding environment and ignited leading to an explosion. This could cause serious environmental impacts in the immediate surroundings. Safety during emergency response to a propane spill is of the utmost concern.

3.2.5 Waste Oil and Miscellaneous Oils/Grease

Environmental impacts: Waste oils may be harmful to wildlife and aquatic life. It is not readily biodegradable and has the potential for bioaccumulation in the environment. Runoff into water bodies must be avoided.

Worst case scenario: All storage drums were punctured or opened simultaneously, and contents seeped into surrounding soil and water bodies. This could cause illness or death to aquatic life and indirectly affect wildlife feeding from the land and water.

3.3 Procedures

3.3.1 Procedures for Initial Actions

1. Ensure the Safety of all personnel.
2. Assess spill hazards and risks.
3. Remove all sources of ignition.
4. Stop the spill if safely possible e.g., shut off the pump, replace the cap, tip drum upward, and patch the leaking hole. Use the contents of the nearest spill kit to aid in stopping the spill if it is safe to do so. Tyvek suits and chemical master gloves are located in the spill kit and should be worn immediately if there is any risk of being in contact with fuel.
5. No matter what the volume is, notify the camp manager.
6. Contain the spill – use the contents of spill kits to place sorbent materials on the spill or use a shovel to dig a dyke to contain the spill. Methods will vary depending on the nature of the spill. See Section 3.5 for more details.

3.4 Spill Reporting Procedures

Report the spill immediately to the camp manager, who will determine if the spill is to be reported to the NWT 24-Hour Spill Line at 867-920-8130.

Each spill kit, as well as the office and camp manager, will have copies of the NWT Spill Report form to be filled out (see Appendix B). Fill out and email the Spill Report to the staff of the NWT 24-hour spill line. Also, scan and email the report to the general manager.

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

General Manager Great Bear Lake Lodge
Phone: (204) 990-4868
Email: chuk@plummerslodges.com

3.5 Procedures for Containing and Controlling the Spill

1. Initiate spill containment by first determining what will be affected by the spill.
2. Assess the speed and direction of the spill and the cause of movement (water, wind, and slope).
3. Determine the best location for containing the spill, avoiding any water bodies.
4. Have a contingency plan ready in case the spill worsens beyond control or if the weather or topography impedes containment.

Specific Spill containment methods for land, water, ice, and snow are outlined below.

3.5.1 Containment of Spills on Land

Spills on land include spills on rock, gravel, soil and/or vegetation. It is important to note that soil is a natural sorbent, thus spills on soil are generally less serious than spills on water as contaminated soil can be more easily recovered. Generally, spills on land occur during the late spring, summer or fall when snow cover is at a minimum. All measures must be undertaken to avoid spills reaching open water bodies.

Dykes:

Dykes can be created using soil surrounding a spill on land. These dykes are constructed around the perimeter or downslope of the spilled fuel. A dyke needs to be built up to a size that will ensure containment of the maximum quantity of fuel that may reach it. A plastic tarp can be placed on and at the base of the dyke such that fuel can pool up and subsequently be removed with sorbent materials or by a pump into barrels or bags. If the spill is migrating very slowly a dyke may not be necessary and sorbents can be used to soak up fuels before they migrate away from the source of the spill.

Trenches:

Trenches can be dug out to contain spills as long as the top layer of soil is thawed. Shovels, pickaxes, or a loader can be used depending on the size of the trench required. It is recommended that the trench be dug into the bedrock or permafrost, which will then provide a containment layer for the spilled fuel. Fuel can then be recovered using a pump or sorbent materials

3.5.2 Containment of Spills on Water

Spills on water such as rivers, streams or lakes are the most serious types of spills as they can negatively impact water quality and aquatic life. All measures need to be undertaken to contain spills in open water.

Booms:

Booms are commonly used to recover fuel floating on the surface of lakes or slow-moving streams. They are released from the shore of a water body to create a circle around the spill. If the spill is away from the shoreline a boat will need to be used to reach the spill, then the boom can be set out. More than one boom may be used at once. Booms may also be used in streams and should be set out at an angle to the current. Booms are designed to float and have sorbent materials built into them to absorb fuels at the edge of the boom. Fuel contained within the circle of the boom will need to be recovered using sorbent materials or pumps and placed into barrels or bags for disposal.

Weirs:

Weirs can be used to contain spills in streams and to prevent further migration downstream. Plywood or other materials found on-site can be placed into and across the width of the stream, such that water can still flow under the weir. Spilled fuel will float on the water's surface and be contained at the foot of the weir. It can then be removed using sorbents, booms or pumps and placed into barrels or plastic bags.

Barriers:

In some situations, barriers made of netting or fence material can be installed across a stream, and sorbent materials are placed at the base to absorb spilled fuel. Sorbents will need to be replaced as soon as they are saturated. Water will be allowed to flow through. This is very similar to the weir option discussed above. Note that in some cases, it may be appropriate to burn fuel or to let volatile fuels such as gasoline evaporate after containment on the water surface. This should only be undertaken in consultation with and after approval from the INAC or lead agency Inspector.

3.5.3 Containment of Spills on Ice

Spills on ice are generally the easiest spills to contain due to the predominantly impermeable nature of the ice. For small spills, sorbent materials are used to soak up spilled fuel. The remaining contaminated ice/ slush can be scraped and shovelled into a plastic bag or barrel. However, all possible attempts should be made to prevent spills from entering ice-covered waters as no easy method exists for the containment and recovery of spills if they seep under the ice.

Dykes:

Dykes can be used to contain fuel spills on ice. By collecting surrounding snow, compacting it and mounding it to form a dyke downslope of the spill, a barrier is created thus helping to contain the spill. If the quantity of spill is fairly large, a plastic tarp can be placed over the dyke such that the spill pools at the base of the dyke. The collected fuel can then be pumped into barrels or collected with sorbent materials.

Trenches:

For significant spills on ice, trenches can be cut into the ice surrounding and/or downslope of the spill such that fuel is allowed to pool in the trench. It can then be removed via a pump into barrels, collected with sorbent materials, or mixed with snow and shovelled into barrels or bags.

Burning:

Burning should only be considered if other approaches are not feasible, and is only to be undertaken with the permission of the INAC or lead agency Inspector.

3.5.4 Containment of Spills on Snow

Snow is a natural sorbent, thus, as with spills on soil, spilled fuel can be more easily recovered. Generally, small spills on snow can be easily cleaned up by raking and shovelling the contaminated snow into plastic bags or empty barrels and storing these at an approved location.

Dykes:

Dykes can be used to contain fuel spills on snow. By compacting snow downslope from the spill, and mounding it to form a dyke, a barrier or berm is created thus helping to contain the spill. If the quantity of spill is fairly large, a plastic tarp can be placed over the dyke such that the spill pools at the base of the dyke. The collected fuel/snow mixture can then be shovelled into barrels or bags, or collected with sorbent materials

3.5.5 Worst Case Scenarios

Dealing with spilled fuel which exceeds the freeboard of a dyke or barrier would present a possible worst-case scenario for Great Bear Lake Lodge. To contain the overflow, a trench or collection pit would have to be created downstream of the spill to contain the overflow.

Another worst-case scenario would be an excessive spill on water that may be difficult to contain with the booms present at the site. In this case, an emergency response mobile unit would have to be called in to deal with the spill using appropriate equipment.

3.6 Procedures for Transferring, Storing, and Managing Spill-Related Wastes

In most cases, spill cleanups are initiated at the far end of the spill and contained moving toward the centre of the spill. Sorbent socks and pads are generally used for small spill clean-ups. A pump with an attached fuel transfer hose can suction spills from leaking containers or large accumulations on land or ice, and direct these larger quantities into empty drums. Hand tools such as cans, shovels, and rakes are also very effective for small spills or hard-to-reach areas. Heavy equipment can be used if deemed necessary and given space and time constraints.

Used sorbent materials are to be placed in plastic bags for future disposal. All materials mentioned in this section are available in the spill kits located at Great Bear Lake Lodge. Following clean-up, any tools or equipment used will be properly washed and decontaminated, or replaced if this is not possible.

For most of the containment procedures outlined in Section 3.5, 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.

3.7 Procedures for Restoring Affected Areas

Once a spill of reportable size has been contained, Great Bear Lake Lodge will consult with the GNWT Inspectors, or lead agency Inspector assigned to the file to determine the level of cleanup required. The Inspector may require a site-specific study to ensure appropriate cleanup levels are met. Criteria that may be considered include natural biodegradation of oil, replacement of soil and revegetation.

4 RESOURCE INVENTORY

4.1 On-Site Resources

Spill kits are located throughout the site at the locations indicated in Figure 3. The contents are described below. In addition, earthmoving, and other equipment located at Great Bear Lake Lodge are also listed below.

Contents of Spill Kits:

- 4 Tyvek splash suits
- 4 Pairs of chemical master gloves
- 2 Safety goggles
- 8 large bags with ties for temporary use
- 2 oil-only booms (5" x 10')
- 175 Oil only pads (16" x 20")
- 10 Sorbent socks
- 2 Large tarps
- 1 Rolls duct tape
- 1 Utility Knife
- 1 Field clipboard and pencil
- 1 Pickaxe
- 2 Stainless steel shovels

Earth Moving and Other Equipment

- 25 x 18' Aluminium Boats
- 4 x Pick-up Trucks
- School bus
- Water truck
- Grader
- 977 Cat
- Backhoe
- Dump Truck

4.2 Off-Site Resources

All the contacts listed below could reach the site in 3 hours at a minimum. However, realistically government officials would not be able to reach the site until the next business day, depending on the severity of the spill.

Name	Contact Information
Great Bear Lake Lodge 24-Hour Emergency Line	(204) 990-4868
NWT 24-Hour Spill Line	(867) 920-8130
GNWT Inspector (Yellowknife)	(867) 767-9187
Environment Canada (Emergency) Yellowknife	(867) 669-4725
GNWT Environmental Protection Division	(867) 873-7654
GNWT Environmental Health Office	(867) 669-8979
RCMP (Yellowknife)	(867) 669-1111
Medivac (Yellowknife)	(867) 669-4115
Great Slave Helicopters (Yellowknife)	(867) 873-2081
Air Tindi (Yellowknife)	(867) 669-8218 or 669-8200
Summit Air	(867) 765-0914
Coast Guard NWT	(867) 979-5269

As planning for an emergency is imperative due to the materials stored on-site and the remoteness of the site, an employee and contractor training program has been prepared. It is outlined below.

5 TRAINING PROGRAM

5.1 Outline of Training Program

The employee and contractor training program was developed by the manager of Great Bear Lake Lodge and has been disseminated by the camp manager. The following are key steps in the program:

- All individuals entering the site are required to participate in a site-specific orientation session.
- During this session, all locations of the spill plan and spill kits are reviewed.
- An overview of the Plan is provided by the camp manager leading the orientation session.
- Specific training sessions, including mock spill exercises, are scheduled for individuals directly involved in handling hazardous materials to ensure they know all steps to be undertaken in handling these materials, as well as the steps involved in the event of a spill, including the proper use of spill kits.

5.2 Training Schedule and Recordkeeping

A spreadsheet is kept by the camp manager and head office indicating the training undertaken, and expiration dates of specific training e.g., first aid is updated each operating season.

6 APPENDIX A: MATERIAL SAFETY DATA SHEETS (MSDS)

See below.

SAFETY DATA SHEET

DIESEL FUEL

000003000395

Version 6.3

Revision Date 2022/02/01

Print Date 2022/02/01



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, Renewable Diesel blend (RX where X is 2- 50, X is representative of volume %), Diesel Low Cloud (LC), Marine Gas Oil, Marine Gas Oil Dyed

Product code : 103213, 100679, 100654, 100653, 100105, 100992, 100637, 100634, 100631, 100638, 100641, 100635, 100632, 100684, 100683, 100657, 100656, 100655, 100687, 100686, 100685, 100681, 100661, 100659, 100667, 100666, 100665, 100682, 100671, 100669, 100664, 100662, 100680, 100781, 100964, 103204, 103180, 103179, 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
P.O. Box 2844, 150 - 6th Avenue South-West
Calgary Alberta T2P 3E3
Canada, Telephone: 1-866-786-2671

Emergency telephone number : CHEMTREC: 1-800-424-9300 (toll free) or +1 703-527-3887;
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

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	Bright oily liquid.
Colour	Clear to yellow (This product may be dyed red for taxation purposes)

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Odour	Mild petroleum oil like.
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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:

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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	48 - 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 - 50 %
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

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

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Dry chemical
Carbon dioxide (CO₂)
Water fog.
Foam
- Unsuitable extinguishing media : Do NOT use water jet.
- Specific hazards during fire-fighting : Cool closed containers exposed to fire with water spray.
- Hazardous combustion products : Carbon oxides (CO, CO₂), nitrogen oxides (NO_x), sulphur oxides (SO_x), 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.
Ensure adequate ventilation.
Evacuate personnel to safe areas.
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.
Remove all sources of ignition.
Soak up with inert absorbent material.
Non-sparking tools should be used.
Ensure adequate ventilation.

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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.
Use only with adequate ventilation.
In case of insufficient ventilation, wear suitable respiratory equipment.
Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity.
Avoid contact with skin, eyes and clothing.
Do not ingest.
Keep away from heat and sources of ignition.
Keep container closed when not in use.
- Conditions for safe storage : Store in original container.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Keep in a dry, cool and well-ventilated place.
Keep in properly labelled containers.
To maintain product quality, do not store in heat or direct sunlight.
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/m ³ (As total hydrocarbon vapour)	ACGIH
		TWA	200 mg/m ³ (total hydrocarbon vapor)	CA AB OEL
		TWA	525 mg/m ³	CA ON OEL
		TWA	200 mg/m ³ (As total hydrocarbon vapour)	ACGIH
		TWA	200 mg/m ³ (total hydrocarbon vapor)	ACGIH
Kerosine (petroleum); Straight run kerosine	8008-20-6	TWA	200 mg/m ³ (total hydrocarbon vapor)	CA BC OEL
		TWA	200 mg/m ³ (total hydrocarbon vapor)	CA AB OEL
		TWA	200 mg/m ³ (total hydrocarbon	ACGIH

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			vapor)	
Fuels, diesel; Gasoil — unspecified	68334-30-5	TWA	100 mg/m ³ (total hydrocarbons)	CA AB OEL
		TWA (Vapour and inhalable aerosols)	100 mg/m ³ (total hydrocarbons)	CA BC OEL
		TWA (Inhalable fraction and vapor)	100 mg/m ³ (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.

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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) Method: closed cup
Auto-Ignition Temperature	: 204 °C (399 °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)

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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 CO _x , NO _x , SO _x , 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: 1.5 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method Assessment: The component/mixture is moderately toxic after short term inhalation. Remarks: Harmful if inhaled.
Acute dermal toxicity	: Assessment: The substance or mixture has no acute dermal toxicity

Components:

Kerosine (petroleum), hydrodesulfurized; Kerosine — unspecified:

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

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Fuels, diesel; Gasoil — unspecified:

Acute oral toxicity : LD50 (Rat): 7,500 mg/kg,
Acute inhalation toxicity : LC50 (Rat): 4.1 mg/l
Exposure time: 4 h
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 - As-
sessment : 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.

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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.
Offer surplus and non-recyclable solutions to a licensed disposal company.
Waste must be classified and labelled prior to recycling or disposal.
Send to a licensed waste management company.

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Dispose of as hazardous waste in compliance with local and national regulations.
Dispose of product residue in accordance with the instructions of the person responsible for waste disposal.

Contaminated packaging : Contact local or business unit authorities for guidance on disposal of product.

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 : yes

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 : yes

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

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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

Revision Date : 2022/02/01

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.

SAFETY DATA SHEET

GASOLINE, UNLEADED



000003000644

Version 3.1

Revision Date 2021/02/18

Print Date 2021/02/18

SECTION 1. IDENTIFICATION

Product name : GASOLINE, UNLEADED

Synonyms : TN-PE-TM15-X00-1499; LVB87, Regular, Unleaded Gasoline (US Grade), Mid-Grade, Plus, Super, WinterGas, SummerGas, Supreme, SuperClean, SuperClean WinterGas, RegularClean, PlusClean, Premium, marked or dyed gasoline, TQRUL, transitional quality regular unleaded, BOB, Blendstock for Oxygenate Blending, Conventional Gasoline, RUL, MUL, SUL, PUL.

Product code : 100127, 100126, 101823, 100507, 101811, 101814, 100141, 101813, 101810, 101812, 100063, 101822, 100138, 101821, 100064, 101820, 101819, 100506, 101818, 101816, 101817, 100488

Manufacturer or supplier's details
Petro-Canada
P.O. Box 2844, 150 - 6th Avenue South-West
Calgary Alberta T2P 3E3
Canada, Telephone: 1-866-786-2671

Emergency telephone number : CHEMTREC: 1-800-424-9300 (toll free) or +1 703-527-3887; Suncor Energy: +1 403-296-3000

Recommended use of the chemical and restrictions on use

Recommended use : Unleaded gasoline is used in spark ignition engines including motor vehicles, inboard and outboard boat engines, small engines such as chain saws and lawn mowers, and recreational vehicles.

Prepared by : Product Safety

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	Clear liquid.
Colour	Clear to slightly yellow or green, undyed liquid. May be dyed red for taxation purposes.
Odour	Gasoline

GHS Classification

Flammable liquids : Category 1

Skin irritation : Category 2

Germ cell mutagenicity : Category 1B

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- Carcinogenicity : Category 1A
- Reproductive toxicity : Category 2
- Specific target organ toxicity - single exposure : Category 3 (Central nervous system)
- Specific target organ toxicity - repeated exposure : Category 1
- Aspiration hazard : Category 1

GHS label elements

- Hazard pictograms :
- 
- Three GHS hazard pictograms are shown in a row, each enclosed in a red diamond border. From left to right: a flame (F+), a person with a star on their chest (T+), and an exclamation mark (Xn).

- Signal word : Danger

- Hazard statements : Extremely flammable liquid and vapour.
May be fatal if swallowed and enters airways.
Causes skin irritation.
May cause drowsiness or dizziness.
May cause genetic defects.
May cause cancer.
Suspected of damaging fertility or the unborn child.
Causes damage to organs 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.
Do not eat, drink or smoke when using this product.
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.

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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.

IARC

Group 1: Carcinogenic to humans

Benzene 71-43-2

ACGIH

Confirmed human carcinogen

Benzene 71-43-2

Confirmed animal carcinogen with unknown relevance to humans

Gasoline 86290-81-5

Ethanol 64-17-5

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical name	CAS-No.	Concentration
Gasoline; Low boiling point naphtha -unspecified	86290-81-5	95 - 100 %
toluene	108-88-3	1 - 40 %

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benzene	71-43-2	0.5 - 1.5 %
ethanol	64-17-5	0.1 - 0.3 %

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.
Obtain medical attention.
- If swallowed : Rinse mouth with water.
DO NOT induce vomiting unless directed to do so by a physician or poison control center.
Never give anything by mouth to an unconscious person.
Seek medical advice.
- Most important symptoms and effects, both acute and delayed : Inhalation may cause central nervous system effects.
Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.
Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.
Chronic exposure to benzene may result in increased risk of leukemia and other blood disorders.
- Notes to physician : Treat symptomatically.
Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Dry chemical
Carbon dioxide (CO₂)
Water fog.
Foam
- Unsuitable extinguishing media : Do NOT use water jet.
- Specific hazards during fire-fighting : Cool closed containers exposed to fire with water spray.
- Hazardous combustion products : Carbon oxides (CO, CO₂), nitrogen oxides (NO_x), polynuclear aromatic hydrocarbons, phenols, aldehydes, ketones, 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 : Wear self-contained breathing apparatus and full protective

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for firefighters

wear.
Wear a positive-pressure supplied-air respirator with full face-piece.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : For personal protection see section 8.
Ensure adequate ventilation.
Evacuate personnel to safe areas.
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.
Remove all sources of ignition.
Soak up with inert absorbent material.
Non-sparking tools should be used.
Ensure adequate ventilation.
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.
Use only with adequate ventilation.
In case of insufficient ventilation, wear suitable respiratory equipment.
Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity.
Avoid contact with skin, eyes and clothing.
Do not ingest.
Keep away from heat and sources of ignition.
Keep container closed when not in use.
- Conditions for safe storage : Store in original container.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Keep in a dry, cool and well-ventilated place.
Keep in properly labelled containers.
To maintain product quality, do not store in heat or direct sunlight.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
toluene	108-88-3	TWA	50 ppm 188 mg/m ³	CA AB OEL
		TWA	20 ppm	CA BC OEL

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		TWAEV	50 ppm 188 mg/m ³	CA QC OEL
		TWA	20 ppm	ACGIH
benzene	71-43-2	TWA	0.5 ppm 1.6 mg/m ³	CA AB OEL
		STEL	2.5 ppm 8 mg/m ³	CA AB OEL
		TWA	0.5 ppm	CA BC OEL
		STEL	2.5 ppm	CA BC OEL
		TWA	0.5 ppm	CA ON OEL
		STEL	2.5 ppm	CA ON OEL
		TWAEV	1 ppm 3 mg/m ³	CA QC OEL
		STEV	5 ppm 15.5 mg/m ³	CA QC OEL
		TWA	0.5 ppm	ACGIH
		STEL	2.5 ppm	ACGIH
Gasoline; Low boiling point naphtha -unspecified	86290-81-5	TWA	300 ppm	CA AB OEL
		STEL	500 ppm	CA AB OEL
		TWA	300 ppm	CA BC OEL
		STEL	500 ppm	CA BC OEL
		TWA	300 ppm	ACGIH
		STEL	500 ppm	ACGIH
ethanol	64-17-5	TWA	1,000 ppm 1,880 mg/m ³	CA AB OEL
		STEL	1,000 ppm	CA BC OEL
		TWAEV	1,000 ppm 1,880 mg/m ³	CA QC OEL
		STEL	1,000 ppm	ACGIH

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sam-pling time	Permissible concentra-tion	Basis
Toluene	108-88-3	Toluene	In blood	Prior to last shift of work-week	0.02 mg/l	ACGIH BEI
		Toluene	Urine	End of shift (As soon as possible after exposure ceases)	0.03 mg/l	ACGIH BEI

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.

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	<p>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.</p>
Filter type	<p>: A NIOSH-approved air-purifying respirator with an 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.</p>
Hand protection Material	<p>: 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.</p>
Remarks	<p>: 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.</p>
Eye protection	<p>: Wear face-shield and protective suit for abnormal processing problems.</p>
Skin and body protection	<p>: Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.</p>
Protective measures Hygiene measures	<p>: Wash contaminated clothing before re-use. : Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash face, hands and any exposed skin thoroughly after handling.</p>

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Clear liquid.
Colour	: Clear to slightly yellow or green, undyed liquid. May be dyed red for taxation purposes.
Odour	: Gasoline
Odour Threshold	: No data available
pH	: No data available
Melting point	: No data available
Boiling point/boiling range	: 25 - 225 °C (77 - 437 °F)

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Decomposition temperature	No data available
Flash point	: -50 - -38 °C (-58 - -36 °F) Method: Tagliabue.
Auto-Ignition Temperature	: 257 °C (495 °F)
Evaporation rate	: No data available
Flammability	: Extremely flammable in presence of open flames, sparks, shocks, and heat. Vapours are heavier than air and may travel considerable distance to sources of ignition and flash back. Rapid escape of vapour may generate static charge causing ignition. May accumulate in confined spaces.
Upper explosion limit	: 7.6 %(V)
Lower explosion limit	: 1.3 %(V)
Vapour pressure	: < 802.5 mmHg (20 °C / 68 °F)
Relative vapour density	: 3
Relative density	: 0.685 - 0.8
Solubility(ies)	
Water solubility	: insoluble
Partition coefficient: n-octanol/water	: No data available
Viscosity	
Viscosity, kinematic	: No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
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, acids and interhalogens.
Hazardous decomposition products	: May release COx, NOx, phenols, polycyclic aromatic hydrocarbons, aldehydes, ketones, smoke and irritating vapours when heated to decomposition.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye contact

Ingestion

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Inhalation
Skin contact

Acute toxicity

Product:

- Acute oral toxicity : Remarks: Based on available data, the classification criteria are not met.
- Acute inhalation toxicity : Remarks: Based on available data, the classification criteria are not met.
- Acute dermal toxicity : Remarks: Based on available data, the classification criteria are not met.

Components:

Gasoline; Low boiling point naphtha -unspecified:

- Acute oral toxicity : LD50 (Rat): 13,600 mg/kg,
- Acute dermal toxicity : LD50 (Rabbit): > 3,750 mg/kg,

toluene:

- Acute oral toxicity : LD50 (Rat): 5,580 mg/kg,
- Acute inhalation toxicity : LC50 (Rat): > 20 mg/l
Exposure time: 4 h
Test atmosphere: vapour
- Acute dermal toxicity : LD50 (Rabbit): 12,125 mg/kg,

benzene:

- Acute oral toxicity : LD50 (Rat): 2,990 mg/kg,
- Acute inhalation toxicity : LC50 (Rat): 13700 ppm
Exposure time: 4 h
Test atmosphere: vapour
- Acute dermal toxicity : LD50 (Rabbit): > 8,240 mg/kg,

ethanol:

- Acute oral toxicity : LD50 (Rat): 7,060 mg/kg,
- Acute inhalation toxicity : LC50 (Rat): > 32380 ppm
Exposure time: 4 h
Test atmosphere: vapour

Skin corrosion/irritation

Product:

Remarks: Causes skin irritation.

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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 May cause genetic defects.

Carcinogenicity

Product:

Carcinogenicity - Assessment May cause cancer.

Reproductive toxicity

Product:

Reproductive toxicity - Assessment Suspected of damaging fertility or the unborn child.

STOT - single exposure

Product:

Remarks: May cause drowsiness or dizziness.

STOT - repeated exposure

Product:

Remarks: Causes 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

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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.
Offer surplus and non-recyclable solutions to a licensed disposal company.
Waste must be classified and labelled prior to recycling or disposal.
Send to a licensed waste management company.
Dispose of as hazardous waste in compliance with local and national regulations.
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 1203
Proper shipping name : Gasoline
Class : 3
Packing group : II
Labels : Class 3 - Flammable Liquid
Packing instruction (cargo aircraft) : 364

IMDG-Code

UN number : UN 1203
Proper shipping name : GASOLINE

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Class : 3
Packing group : II
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 1203
Proper shipping name : GASOLINE
Class : 3
Packing group : II
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

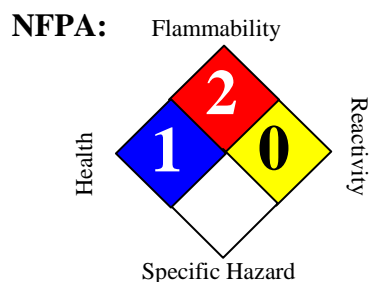
Prepared by : Product Safety

Revision Date : 2021/02/18

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.

Safety Data Sheet

Jet Fuel



SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name	:	Jet Fuel			
Synonyms	:	Jet Fuel - A, B, A-I, A-50, High Sulfur, Military, Jet A & B Aviation Turbine Fuel, Jet A-I, Jet A; Avjet For Blending; Jet Q Turbine Fuel, Aviation Fuel; Turbine Fuel; JP-4; JP-5; JP-8, Av-Jet, 888100004452			
SDS Number	:	888100004452	Version	:	2.15
Product Use Description	:	Fuel			
Company	:	For: Tesoro Refining & Marketing Co. 19100 Ridgewood Parkway, San Antonio, TX 78259			
Tesoro Call Center	:	(877) 783-7676	Chemtrec (Emergency Contact)	:	(800) 424-9300

SECTION 2. HAZARDS IDENTIFICATION

Classifications	:	Flammable Liquid – Category 3 Aspiration Hazard – Category 1 Skin Irritation – Category 2 Specific Target Organ Toxicity (Single Exposure) – Category 3 Chronic Aquatic Toxicity – Category 2
Pictograms	:	
Signal Word	:	Danger
Hazard Statements	:	Flammable liquid and vapor. May be fatal if swallowed and enters airways – do not siphon by mouth. Causes skin irritation. Repeated or prolonged skin contact can cause skin irritation and dermatitis. May cause drowsiness or dizziness by inhalation. May cause irritation of respiratory system. Toxic to aquatic life with long lasting effects.
Precautionary statements	:	

Prevention	<p>Keep away from heat, sparks, open flames, welding and hot surfaces. No smoking. Keep container tightly closed. Ground and/or bond container and receiving equipment. Use explosion-proof electrical equipment. Use only non-sparking tools if tools are used in flammable atmosphere. Take precautionary measures against static discharge. Wear gloves, eye protection and face protection as needed to prevent skin and eye contact with liquid. Wash hands or liquid-contacted skin thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe vapors or mists. Use only outdoors or in a well-ventilated area.</p>
Response	<p>In case of fire: Use dry chemical, CO2, water spray or fire fighting foam to extinguish. If swallowed: Immediately call a poison center, doctor, hospital emergency room, medical clinic or 911. Do NOT induce vomiting. Rinse mouth. If skin irritation persists, get medical attention. If inhaled: Remove person to fresh air and keep comfortable for breathing. Get medical attention if you feel unwell.</p>
Storage	<p>Store in a well ventilated place. Keep cool. Store locked up. Keep container tightly closed . Use only approved containers.</p>
Disposal	<p>Dispose of contents/containers to approved disposal site in accordance with local, regional, national, and/or international regulations.</p>

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No.	Weight %
Kerosene (petroleum)	8008-20-6	100%
Naphthalene	91-20-3	0 to 3%
Ethyl Benzene	100-41-4	0 to 1%
Trimethy Benzene	95-63-6	0 to 1%
Ethyl Benzene	100-41-4	0 to 1%

SECTION 4. FIRST AID MEASURES

Inhalation	: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If necessary, provide additional oxygen once breathing is restored if trained to do so. Seek medical attention immediately.
Skin contact	: Take off all contaminated clothing immediately. Wash off immediately with soap and plenty of water. Wash contaminated clothing before re-use. If skin irritation persists, seek medical attention.
Eye contact	: In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek medical attention

	immediately.
Ingestion	: Do NOT induce vomiting. Do not give liquids. Seek medical attention immediately. If vomiting does occur naturally, keep head below the hips to reduce the risks of aspiration. Monitor for breathing difficulties. Small amounts of material which enter the mouth should be rinsed out until the taste is dissipated.
Notes to physician	: Symptoms: Aspiration may cause pulmonary edema and pneumonitis. Treatment: Do not induce vomiting, use gastric lavage only. Remove from further exposure and treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	: Carbon dioxide (CO ₂), Water spray, Dry chemical, Foam, Keep containers and surroundings cool with water spray., Do not use a solid water stream as it may scatter and spread fire., Water may be ineffective for fighting the fire, but may be used to cool fire-exposed containers.
Specific hazards during fire fighting	: Fire Hazard. Do not use a solid water stream as it may scatter and spread fire. Cool closed containers exposed to fire with water spray. Sealed containers may rupture when heated. Above the flash point, explosive vapor-air mixtures may be formed. Vapors can flow along surfaces to distant ignition source and flash back.
Special protective equipment for fire-fighters	: Firefighting activities that may result in potential exposure to high heat, smoke or toxic by-products of combustion should require NIOSH/MSHA- approved pressure-demand self-contained breathing apparatus with full facepiece and full protective clothing.
Further information	: Exposure to decomposition products may be a hazard to health. Standard procedure for chemical fires.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions	: ACTIVATE FACILITY'S SPILL CONTINGENCY OR EMERGENCY RESPONSE PLAN if applicable. Evacuate nonessential personnel and remove or secure all ignition sources. Consider wind direction; stay upwind and uphill, if possible. Evaluate the direction of product travel, diking, sewers, etc. to contain spill areas. Spills may infiltrate subsurface soil and groundwater; professional assistance may be necessary to determine the extent of subsurface impact.
Environmental precautions	: Carefully contain and stop the source of the spill, if safe to do so. Protect bodies of water by diking, absorbents, or absorbent boom, if possible. Do not flush down sewer or drainage systems, unless system is designed and permitted to handle such material. The use of fire fighting foam may be useful in certain situations to reduce vapors. The proper use of water spray may effectively disperse product vapors or the liquid itself, preventing contact with ignition sources or areas/equipment that require protection.
Methods for cleaning up	: Take up with sand or oil absorbing materials. Carefully shovel, scoop or sweep up into a waste container for reclamation or disposal - caution, flammable vapors may accumulate in closed containers. Response and clean-up crews must be properly trained and must utilize proper protective equipment (see Section 8).

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling	: Keep away from fire, sparks and heated surfaces. No smoking near areas where
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material is stored or handled. The product should only be stored and handled in areas with intrinsically safe electrical classification.

- : Hydrocarbon liquids including this product can act as a non-conductive flammable liquid (or static accumulators), and may form ignitable vapor-air mixtures in storage tanks or other containers. Precautions to prevent static-initated fire or explosion during transfer, storage or handling, include but are not limited to these examples:
 - (1) Ground and bond containers during product transfers. Grounding and bonding may not be adequate protection to prevent ignition or explosion of hydrocarbon liquids and vapors that are static accumulators.
 - (2) Special slow load procedures for "switch loading" must be followed to avoid the static ignition hazard that can exist when higher flash point material (such as fuel oil or diesel) is loaded into tanks previously containing low flash point products (such as gasoline or naphtha).
 - (3) Storage tank level floats must be effectively bonded.

For more information on precautions to prevent static-initated fire or explosion, see NFPA 77, Recommended Practice on Static Electricity (2007), and API Recommended Practice 2003, Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents (2008).

Conditions for safe storage, including incompatibilities

- : Keep away from flame, sparks, excessive temperatures and open flame. Use approved containers. Keep containers closed and clearly labeled. Empty or partially full product containers or vessels may contain explosive vapors. Do not pressurize, cut, heat, weld or expose containers to sources of ignition. Store in a well-ventilated area. The storage area should comply with NFPA 30 "Flammable and Combustible Liquid Code". The cleaning of tanks previously containing this product should follow API Recommended Practice (RP) 2013 "Cleaning Mobile Tanks In Flammable and Combustible Liquid Service" and API RP 2015 "Cleaning Petroleum Storage Tanks".
- : Keep away from food, drink and animal feed. Incompatible with oxidizing agents. Incompatible with acids.
- : Emergency eye wash capability should be available in the near proximity to operations presenting a potential splash exposure.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

List	Components	CAS-No.	Type:	Value
OSHA Z1	Naphthalene	91-20-3	PEL	10 ppm 50 mg/m3
	Ethyl Benzene	100-41-4	PEL	100 ppm 435 mg/m3
ACGIH	Naphthalene	91-20-3	TWA	10 ppm
		91-20-3	STEL	15 ppm
	Kerosene (petroleum)	8008-20-6	TWA	200 mg/m3
	Ethyl Benzene	100-41-4	TWA	100 ppm 434 mg/m3
			STEL	125 ppm 543 mg/m3

Protective measures : Keep out of reach of children.

Engineering measures : Use only intrinsically safe electrical equipment approved for use in classified areas. Emergency eye wash capability should be available in the vicinity of any potential

	splash exposure.
Eye protection	: Goggles and face shield as needed to prevent eye and face contact.
Hand protection	: Gloves constructed of nitrile, neoprene, or PVC are recommended.
Skin and body protection	: Chemical protective clothing such as DuPont TyChem®, Barricade or equivalent, recommended based on degree of exposure. Consult manufacturer specifications for further information.
Respiratory protection	: NIOSH/MSHA approved positive-pressure self-contained breathing apparatus (SCBA) or Type C positive-pressure supplied air with escape bottle must be used for gas concentrations above occupational exposure limits, for potential of uncontrolled release, if exposure levels are not known, or in an oxygen-deficient atmosphere.
Work / Hygiene practices	: Emergency eye wash capability should be available in the near proximity to operations presenting a potential splash exposure. Use good personal hygiene practices. Avoid repeated and/or prolonged skin exposure. Wash hands before eating, drinking, smoking, or using toilet facilities. Do not use as a cleaning solvent on the skin. Do not use solvents or harsh abrasive skin cleaners for washing this product from exposed skin areas. Waterless hand cleaners are effective. Promptly remove contaminated clothing and launder before reuse. Use care when laundering to prevent the formation of flammable vapors which could ignite via washer or dryer. Consider the need to discard contaminated leather shoes and gloves.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Clear to straw colored liquid
Odor	Characteristic petroleum or kerosene-like odor
Odor threshold	0.1 - 1 ppm typically reported
pH	Not applicable
Melting point/freezing point	Gel point can be about -15°F; freezing requires laboratory conditions
Initial boiling point & range	154 - 372 °C (310° - 702 °F)
Flash point	38°C (100°F) Minimum
Evaporation rate	Higher initially and declining as lighter components evaporate
Flammability (solid, gas)	Flammable vapor released by liquid
Upper explosive limit	5.0 %(V)
Lower explosive limit	0.7 %(V)
Vapor pressure	< 2 mm Hg at 20 °C
Vapor density (air = 1)	> 4.5 0.8 g/mL
Relative density (water = 1)	0.0005 g/100 mL
Solubility (in water)	3.3 to 6 as log Pow

Partition coefficient (n-octanol/water)	210 °C (410°F)	
Auto-ignition temperature	Will evaporate or boil and possibly ignite before decomposition occurs.	
Decomposition temperature	1.6 mm ² /s at 40°C	
Kinematic viscosity		
Conductivity (conductivity can be reduced by environmental factors such as a decrease in temperature)	Diesel Fuel Oils at terminal load rack:	At least 25 pS/m
	Ultra Low Sulfur Diesel (ULSD) without conductivity additive:	0 pS/m to 5 pS/m
	ULSD at terminal load rack with conductivity additive:	At least 50 pS/m
	JP-8 at terminal load rack:	150 pS/m to 600 pS/m

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Vapors may form explosive mixture with air. Hazardous polymerization does not occur.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	Can react with strong oxidizing agents, peroxides, acids and alkalies.
Conditions to avoid	: Avoid high temperatures, open flames, sparks, welding, smoking and other ignition sources. Avoid static charge accumulation and discharge (see Section 7).
Hazardous decomposition products	: Ignition and burning can release carbon monoxide, carbon dioxide, non-combusted hydrocarbons (smoke) and, depending on formulation, trace amounts of sulfur dioxide. Diesel exhaust particulates may be a lung hazard (see Section 11).

SECTION 11. TOXICOLOGICAL INFORMATION

Skin irritation	: Irritating to skin. Repeated or prolonged contact can cause dryness, cracking and dermatitis. Liquid may be absorbed through skin in toxic amounts if large areas of the skin are repeatedly exposed.
Eye irritation	: May cause eye irritation.
Inhalation	Inhalation of vapors or mist may result in respiratory tract irritation and central nervous system effects including headache, dizziness, loss of balance and coordination, unconsciousness, coma, respiratory failure and death.
Chronic Exposure	Similar products produced skin cancer and systemic toxicity in laboratory animals following repeated applications. The significance of these results to human exposure has not been determined.
Further information	: Kerosene does not have a measurable effect on human reproduction or development. Kerosene is not listed as carcinogenic by NTP, OSHA, and ACGIH. IARC has listed kerosene as a probable human carcinogen. Some petroleum distillates have been found to cause adverse reproductive effects in laboratory animals. Acute and chronic exposure to kerosene may result in CNS effects including irritability, restlessness, ataxia, drowsiness, convulsions, coma and death. The most common health effect associated with chronic kerosene exposure is dermatitis.

Component:

Kerosene (petroleum)	8008-20-6	<u>Acute oral toxicity:</u> LD50 rat 4 hour Dose: >5,000 mg/kg <u>Acute dermal toxicity:</u> LD50 rabbit Dose: >2,001 mg/kg <u>Acute inhalation toxicity:</u> LC50 rat Dose: >5,000 mg/l Exposure time: 4 h <u>Skin irritation:</u> Classification: Irritating to skin. Result: Skin irritation
Naphthalene	91-20-3	<u>Acute oral toxicity:</u> LD50 rat Dose: 2,001 mg/kg <u>Acute dermal toxicity:</u> LD50 rat Dose: 2,501 mg/kg <u>Acute inhalation toxicity:</u> LC50 rat Dose: 101 mg/l Exposure time: 4 h <u>Skin irritation:</u> Classification: Irritating to skin. Result: Mild skin irritation <u>Eye irritation:</u> Classification: Irritating to eyes. Result: Mild eye irritation <u>Carcinogenicity:</u> N11.00422130

Carcinogenicity

NTP	Naphthalene (CAS-No.: 91-20-3)
IARC	Kerosene is not listed as carcinogenic by NTP, OSHA, and ACGIH. IARC has listed kerosene as a probable human carcinogen. naphthalene (CAS-No.: 91-20-3) Kerosene (petroleum) (CAS-No.: 8008-20-6)
CA Prop 65	WARNING! This product contains a chemical known to the State of California to cause cancer. Naphthalene (CAS-No.: 91-20-3)

SECTION 12. ECOLOGICAL INFORMATION

Additional ecological information : Release of this product should be prevented from contaminating soil and water and from entering drainage and sewer systems. U.S.A. regulations require reporting spills of this material that could reach any surface waters. The toll free number for the U.S. Coast Guard National Response Center is (800) 424-8802. Naphthalene (91-20-3) one of the ingredients in this mixture is classified as a Marine Pollutant.

Component:

Naphthalene	91-20-3	<u>Toxicity to algae:</u> EC50 Species: Dose: 33 mg/l Exposure time: 24 h
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SECTION 13. DISPOSAL CONSIDERATIONS

Disposal : Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

SECTION 14. TRANSPORT INFORMATION

CFR

Proper shipping name : Fuel, aviation, turbine engine
 UN-No. : 1863
 Class : 3
 Packing group : III

TDG

Proper shipping name : Fuel, aviation, turbine engine
 UN-No. : UN1863
 Class : 3
 Packing group : III

IATA Cargo Transport

UN UN-No. : UN1863
 Description of the goods : Fuel, aviation, turbine engine
 Class : 3
 Packaging group : III
 ICAO-Labels : 3
 Packing instruction (cargo aircraft) : 366
 Packing instruction (cargo aircraft) : Y344

IATA Passenger Transport

UN UN-No. : UN1863
 Description of the goods : Fuel, aviation, turbine engine
 Class : 3
 Packaging group : III
 ICAO-Labels : 3
 Packing instruction (passenger aircraft) : 355
 Packing instruction (passenger aircraft) : Y344

IMDG-Code

UN-No. : UN 1863
 Description of the goods : Fuel, aviation, turbine engine
 Class : 3
 Packaging group : III
 IMDG-Labels : 3
 EmS Number : F-E S-E
 Marine pollutant : Yes

SECTION 15. REGULATORY INFORMATION

TSCA Status	: On TSCA Inventory
DSL Status	: All components of this product are on the Canadian DSL list.
SARA 311/312 Hazards	: Acute Health Hazard Chronic Health Hazard Fire Hazard

CERCLA SECTION 103 and SARA SECTION 304 (RELEASE TO THE ENVIROMENT)

The CERCLA definition of hazardous substances contains a "petroleum exclusion" clause which exempts crude oil. Fractions of crude oil, and products (both finished and intermediate) from the crude oil refining process and any indigenous components of such from the CERCLA Section 103 reporting requirements. However, other federal reporting requirements, including SARA Section 304, as well as the Clean Water Act may still apply.

California Prop. 65	: WARNING! This product contains a chemical known to the State of California to cause cancer.
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Naphthalene 91-20-3

SECTION 16. OTHER INFORMATIONFurther information

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 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.

Revision Date : 11/17/2012

40, 41, 42, 43, 139, 141, 263, 1117, 1333, 1450, 1640

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SECTION 1. IDENTIFICATION

Product name : PROPANE

Synonyms : Propane HD-5, Propane commercial, Liquefied Petroleum Gas (LPG), C₃H₈, CGSB Propane Grade 1, CGSB Propane Grade 2, odorized propane, stench propane, automotive propane, ER62.

Product code : 103176, 103174, 103172, 103153, 103151, 103150, 103149, 103159, 103156, 103147, 100589, 100139

Manufacturer or supplier's details
Petro-Canada
P.O. Box 2844, 150 - 6th Avenue South-West
Calgary Alberta T2P 3E3
Canada

Emergency telephone number : CHEMTREC: 1-800-424-9300 (toll free) or +1 703-527-3887;
Suncor Energy: +1 403-296-3000

Recommended use of the chemical and restrictions on use

Recommended use : Propane is used as a fuel gas, refrigerant and as a raw material for organic synthesis. It is also used as a laboratory gas. The grade determines the propane content. It is supplied as pressurized liquid in tanks.

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

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	Gas at room temperature; liquid when stored under pressure., compressed liquefied gas
Colour	colourless
Odour	Propane is an odourless gas. Odourized propane will contain up to 30 g Ethyl Mercaptan per 1000 L of propane.

GHS Classification

Flammable gases : Category 1

Gases under pressure : Liquefied gas

Simple Asphyxiant : Category 1

GHS label elements

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Hazard pictograms



Signal word

: Danger

Hazard statements

: Extremely flammable gas.
Contains gas under pressure; may explode if heated.
May displace oxygen and cause rapid suffocation.

Precautionary statements

: **Prevention:**
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Response:
Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
In case of leakage, eliminate all ignition sources.
Storage:
Protect from sunlight. Store in a well-ventilated place.

Potential Health Effects

Primary Routes of Entry

: Eye contact
Inhalation
Skin contact

Aggravated Medical Condition

: None known.

Other hazards

None known.

IARC

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical name	CAS-No.	Concentration
propane	74-98-6	72 - 100 %
propene	115-07-1	0 - 23.8 %
butane	106-97-8	0 - 4.7 %
ethane	74-84-0	0 - 4.6 %

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isobutane	75-28-5	0 - 3.6 %
isopentane	78-78-4	0 - 1 %
pentane	109-66-0	0 - 0.9 %
but-1-ene	106-98-9	0 - 0.5 %
methane	74-82-8	0 - 0.2 %

All above concentrations are percent by volume.

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 contaminated 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.
Obtain medical attention.
- If swallowed : Not a significant route of exposure.
- Most important symptoms and effects, both acute and delayed : Inhalation may cause central nervous system effects.
Inhalation of vapours may cause drowsiness, headache, dizziness and disorientation.
May cause irritation of respiratory tract.
Contact with rapidly expanding gas may cause burns or frost-bite.
Overexposure may lead to cardiac sensitization.
High concentrations can remove oxygen and cause dizziness or suffocation.
- Notes to physician : Treat symptomatically.
Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : No information available.
- Specific hazards during fire-fighting : If the product release cannot be shut off safely, allow the product to burn itself out.
Cool closed containers exposed to fire with water spray.
- Hazardous combustion products : Carbon oxides (CO, CO₂), 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 and full protective wear.

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Wear a positive-pressure supplied-air respirator with full face-piece.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : For personal protection see section 8.
Ensure adequate ventilation.
Evacuate personnel to safe areas.
In case of inadequate ventilation wear respiratory protection.
Remove all sources of ignition.
- 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.
Ensure adequate ventilation.
Use explosion-proof ventilation equipment.
Non-sparking tools should be used.
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.
In case of insufficient ventilation, wear suitable respiratory equipment.
Avoid contact with skin, eyes and clothing.
Avoid breathing gas.
Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity.
Use only with adequate ventilation.
Keep away from heat and sources of ignition.
Keep container closed when not in use.
Do not use sparking tools.
Do not enter areas where used or stored until adequately ventilated.
- Conditions for safe storage : Store in original container.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Keep in a dry, cool and well-ventilated place.
Keep in properly labelled containers.
To maintain product quality, do not store in heat or direct sunlight.
Keep away from sources of ignition - No smoking.
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)	Control parameters / Permissible	Basis
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		exposure)	concentration	
propane	74-98-6	TWA	1,000 ppm	CA AB OEL
		TWAEV	1,000 ppm 1,800 mg/m ³	CA QC OEL
propene	115-07-1	TWA	500 ppm 860 mg/m ³	CA AB OEL
		TWA	500 ppm	CA BC OEL
		TWA	500 ppm	ACGIH
butane	106-97-8	TWA	1,000 ppm	CA AB OEL
		TWAEV	800 ppm 1,900 mg/m ³	CA QC OEL
		TWA	1,000 ppm	CA BC OEL
		STEL	1,000 ppm	ACGIH
ethane	74-84-0	TWA	1,000 ppm	CA AB OEL
isobutane	75-28-5	TWA	1,000 ppm	CA AB OEL
		TWA	1,000 ppm	CA BC OEL
		STEL	1,000 ppm	ACGIH
isopentane	78-78-4	TWA	600 ppm 1,770 mg/m ³	CA AB OEL
		TWA	1,000 ppm	CA BC OEL
		TWA	1,000 ppm	ACGIH
ethanethiol	75-08-1	TWA	0.5 ppm 1.3 mg/m ³	CA AB OEL
		TWA	0.5 ppm	CA BC OEL
		TWAEV	0.5 ppm 1.3 mg/m ³	CA QC OEL
		TWA	0.5 ppm	ACGIH

Engineering measures : Adequate ventilation to ensure that Occupational Exposure Limits are not exceeded.
Use only in well-ventilated areas.
Use explosion-proof ventilation equipment.

Personal protective equipment

Respiratory protection : 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 : Always wear NIOSH-approved self-contained breathing apparatus when handling this material.

Hand protection
Material : Wear insulated gloves to prevent frostbite. 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

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Skin and body protection	: problems. : 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. Wear suitable protective equipment.
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	: Gas at room temperature; liquid when stored under pressure., compressed liquefied gas
Colour	: colourless
Odour	: Propane is an odourless gas. Odourized propane will contain up to 30 g Ethyl Mercaptan per 1000 L of propane.
Odour Threshold	: No data available
pH	: No data available
Melting point/freezing point	: No data available
Boiling point/boiling range	: -42 °C (-44 °F)
Decomposition temperature	No data available
Flash point	: -104 °C (-155 °F) Method: closed cup
Auto-Ignition Temperature	: 450 °C (842 °F)
Evaporation rate	: No data available
Flammability	: Extremely 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. Rapid escape of vapour may generate static charge causing ignition. May accumulate in confined spaces.
Upper explosion limit	: 9.5 %(V)
Lower explosion limit	: 2.1 %(V)
Vapour pressure	: 10,763 mmHg (38 °C / 100 °F)
Relative vapour density	: 1.56
Relative density	: No data available
Solubility(ies)	

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Water solubility	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Viscosity	:	
Viscosity, kinematic	:	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	Hazardous polymerisation does not occur.
Conditions to avoid	:	Heat, flames and sparks.
Incompatible materials	:	Reactive with oxidising agents and halogenated compounds.
Hazardous decomposition products	:	May release CO _x , smoke and irritating vapours when heated to decomposition.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye contact
Inhalation
Skin contact

Acute toxicity

Product:

Acute oral toxicity	:	Remarks: Based on available data, the classification criteria are not met.
Acute inhalation toxicity	:	Remarks: Based on available data, the classification criteria are not met.
Acute dermal toxicity	:	Remarks: Based on available data, the classification criteria are not met.

Components:

butane:

Acute inhalation toxicity	:	LC50 (Rat): 658 mg/l Exposure time: 4 h Test atmosphere: gas
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isobutane:

Acute inhalation toxicity	:	LC50 (Rat): 658,000 mg/m ³ Exposure time: 4 h Test atmosphere: gas
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isopentane:

Acute inhalation toxicity	:	LC50 (Rat): 280 mg/l Exposure time: 4 h Test atmosphere: vapour
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pentane:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg,

Acute inhalation toxicity : LC50 (Rat): 364 mg/l
Exposure time: 4 h
Test atmosphere: vapour

Skin corrosion/irritation

Product:

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

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 - As-
sessment Based on available data, the classification criteria are not met.

Reproductive toxicity

Product:

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

STOT - single exposure

Product:

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

STOT - repeated exposure

Product:

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

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No data available

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. Offer surplus and non-recyclable solutions to a licensed disposal company. Waste must be classified and labelled prior to recycling or disposal. Send to a licensed waste management company. Dispose of as hazardous waste in compliance with local and national regulations. Dispose of product residue in accordance with the instructions of the person responsible for waste disposal.
- Contaminated packaging : Contact local or business unit authorities for guidance on disposal of product.

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SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

UN/ID No. : UN 1978
Proper shipping name : Propane
Class : 2.1
Packing group : Not assigned by regulation
Labels : Class 2 - Gases: Flammable (Division 2.1)
Packing instruction (cargo aircraft) : 200

IMDG-Code

UN number : UN 1978
Proper shipping name : PROPANE
Class : 2.1
Packing group : Not assigned by regulation
Labels : 2.1
EmS Code : F-D, S-U
Marine pollutant : no

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

National Regulations

TDG

UN number : UN 1978
Proper shipping name : PROPANE
Class : 2.1
Packing group : Not assigned by regulation
Labels : 2.1
ERG Code : 115
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

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

Revision Date : 2020/12/11

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7 APPENDIX B: NT-NU SPILL REPORT FORM

See below.

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND
OTHER HAZARDOUS MATERIALS



NT-NU 24-HOUR SPILL REPORT LINE

Tel: (867) 920-8130 • Email: spills@gov.nt.ca

REPORT LINE USE ONLY

A	Report Date: MM DD YY	Report Time:	<input type="checkbox"/> Original Spill Report		Report Number:
	Occurrence Date: MM DD YY	Occurrence Time:	OR <input type="checkbox"/> Update # _____ to the Original Spill Report		
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: <input type="checkbox"/> NT <input type="checkbox"/> Nunavut <input type="checkbox"/> 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: <input type="checkbox"/> 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: <input type="checkbox"/> EC <input type="checkbox"/> CCG/TCMSS <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> AANDC <input type="checkbox"/> NEB <input type="checkbox"/> Other: _____			Significance: <input type="checkbox"/> Minor <input type="checkbox"/> Major <input type="checkbox"/> Unknown		File Status: <input type="checkbox"/> Open <input type="checkbox"/> Closed
Agency:	Contact Name:	Contact Time:	Remarks:		
Lead Agency:					
First Support Agency:					
Second Support Agency:					
Third Support Agency:					

8 APPENDIX C: IMMEDIATELY REPORTABLE SPILL QUANTITIES

TDG Class	Substance for NWT 24-Hour Spill Line	Immediately Reportable Quantities
1 2.3 2.4 6.2 7 None	Explosives Compressed gas (toxic) Compressed gas (corrosive) Infectious substances Radioactive Unknown Substance	Any Amount
2.1 2.2	Compressed gas (flammable) Compressed gas (non-corrosive, non-flammable)	Any amount of gas from containers with a capacity greater than 100 L
3.1 3.2 3.3	Flammable liquids	> 100 L
4.1 4.2 4.3	Flammable solids Spontaneously combustible solids Water reactant	> 25 kg
5.1 9.1	Oxidizing substances Miscellaneous products or substances excluding PCB mixtures	> 50 L or 50 kg
5.2 9.2	Organic peroxides Environmentally hazardous	> 1 L or 1 kg
6.1 8 9.3	Poisonous substances Corrosive substances Dangerous wastes	> 5 L or 5 kg
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, wastewater, etc.)	> 100 L or 100 kg
None	Sour natural gas (i.e. contains H ₂ S) Sweet natural gas	Uncontrolled release or sustained flow of 10 minutes or more

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 an imminent threat to human health or safety, poses an imminent threat to a listed species at risk or its critical habitat, or is uncontrollable.