Conforms to ANSI Z400.5-2004 Standard (Canada).

Material Safety Data Sheet

FURNACE FUEL

1 . Product and company identification

Product name : FURNACE FUEL

Synonym : FURNACE FUEL; FUEL OIL

Material uses : Heating fuel.

Supplier/Manufacturer :

Supplier
Federated Co-operatives Limited
P. O. Box 1050; 401 - 22nd Street East
Saskatoon, SK S7K 3M9 Canada
(306) 244-3447

Manufacturer
Consumers' Co-operative Refineries Limited
P.O. Box 260; 9th Avenue North
Regina, SK S4P 3A1 Canada
(306) 721-5353

Code : 113

Responsible name : Atrion Regulatory Services, Inc.

In case of emergency : CANUTEC (613) 996-6666

2 . Hazards identification

Physical state : Liquid.

Odor : Hydrocarbon.

Emergency overview : WARNING!

COMBUSTIBLE LIQUID AND VAPOR. CAUSES EYE AND SKIN IRRITATION.

Combustible liquid and vapor. Irritating to eyes and skin. Keep away from heat, sparks and flame. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Inhalation of vapors may cause headaches, nausea, dizziness, narcosis and act as a severe central nervous system depressant; vapors may also be irritating to the eyes, nose, throat and lungs. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

Routes of entry : Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Inhalation : Irritating to respiratory system.

Ingestion : Harmful if swallowed.

Skin : Irritating to skin. Defatting to the skin. Drying of skin.

Eyes : Irritating to eyes.

Potential chronic health effects

Chronic effects : Prolonged or repeated skin exposure may cause dermatitis. Laboratory studies involving lifetime skin painting experiments (for similar type producs) have shown the development of skin cancer in experimental animals. This relationship, however, has not yet been established for humans.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Inhalation : Adverse symptoms may include the following:
headache
nausea or vomiting
dizziness/vertigo
narcosis or sedation

Ingestion : No specific data.

2 . Hazards identification

Skin : Adverse symptoms may include the following:
irritation
redness

Eyes : Adverse symptoms may include the following:
pain or irritation
watering
redness

Medical conditions aggravated by over-exposure : None known.

See toxicological information (section 11)

3 . Composition/information on ingredients

Name	CAS number	%
Fuels, diesel	68334-30-5	60 - 100

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4 . First aid measures

Eye contact : Check for and remove any contact lenses. Immediately flush affected eyes with warm, running water for at least 15 minutes while holding eyelids open to ensure thorough flushing. Do not use an eye ointment. Get medical attention immediately.

Skin contact : Remove contaminated clothing, launder before reusing. Wash skin throroughly with plenty of soap and water. Discard contaminated leather articles. Get medical attention if irritation develops.

Inhalation : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention immediately.

Ingestion : Do not induce vomiting. Rinse mouth. Give 1/2 glass of milk. Keep victim at rest. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Notes to physician : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5 . Fire-fighting measures

Flammability of the product : Combustible liquid and vapor. Heat will greatly increase fire and explosion hazards. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard. May form combustible mixtures with air at temperatures at or above the flashpoint.

Extinguishing media

Suitable : Use dry chemical, CO_2, water spray (fog) or foam. Contain spill. Cover spill with foam.

Not suitable : Do not use water jet. Do not point solid stream of water into burning product to avoid spreading fire.

Hazardous thermal decomposition products : Smoke, carbon monoxide, carbon dioxide, and other toxic materials.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6 . Accidental release measures

Personal precautions : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8). Wear protective equipment including rubber boots.

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods for cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

7 . Handling and storage

Handling : Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container. DO NOT SIPHON BY MOUTH OR USE AS A CLEANING AGENT!

Storage : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8 . Exposure controls/personal protection

Canada

Product name	Exposure limits
Fuels, diesel	**ACGIH TLV (United States, 1/2007). Skin** TWA: 100 mg/m³, (measured as total hydrocarbons) 8 hour(s). Form: Total hydrocarbons

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Engineering measures : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment. Lab samples should be handled with adequate ventilation (under a fume hood if necessary).

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

Eyes : Splash goggles.

Skin : Wear chemical resistant clothing if prolonged skin contact is likely. Wear long sleeves to minimize skin contact.

Respiratory : A respirator is not needed under normal and intended conditions of product use. Wear an appropriate NIOSH approved respirator if concentration levels exceed the safe exposure limits. If exposure levels are not known, wear an air supplied respirator(SCBA).

Hands : Nitrile gloves./ Viton

Personal protective equipment (Pictograms) :

HMIS Code/Personal protective equipment : x

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9 . Physical and chemical properties

Physical state : Liquid.

Flash point : Closed cup: >50°C (>122°F)

Flammable limits : Lower: 0.7%
Upper: 6%

Color : Straw.

Odor : Hydrocarbon.

Boiling/condensation point : 150 to 390°C (302 to 734°F)

Melting/freezing point : -50 to 5°C (-58 to 41°F)

9 . Physical and chemical properties

Specific gravity : 0.84 to 0.9

Vapor pressure : <0.27 kPa (<2 mm Hg)

Vapor density : >1 [Air = 1]

Solubility : Insoluble in the following materials: cold water and hot water.

10 . Stability and reactivity

Stability : The product is stable. Heat will greatly increase fire and explosion hazards.

Hazardous polymerization : Under normal conditions of storage and use, hazardous polymerization will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.

Materials to avoid : Reactive or incompatible with the following materials: oxidizing materials, acids and alkalis.

Hazardous decomposition products : Decomposition products include smoke, carbon monoxide, carbon dioxide, and other toxic materials.

11 . Toxicological information

Acute toxicity

Product/ingredient name	Species	Dose	Result	Exposure
Fuels, diesel	Rabbit	>5 mL/kg	LD Dermal	-
	Rat	7.5 g/kg	LD50 Oral	-
	Rat	7500 mg/kg	LD50 Oral	-

Inhalation : Irritating to respiratory system.

Ingestion : Harmful if swallowed.

Skin : Irritating to skin. Defatting to the skin. Drying of skin.

Eyes : Irritating to eyes.

Carcinogenicity

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Fuels, diesel	A3	3	-	-	-	-

12 . Ecological information

Environmental effects : No known significant effects or critical hazards.

13 . Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14 . Transport information

AERG : 128

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
TDG Classification	UN1202	FUEL OIL (Fuels, diesel)	3	III		-
IMDG Class	UN1202	FUEL OIL (Fuels, diesel)	3	III		-
IATA-DGR Class	UN1202	FUEL OIL (Fuels, diesel)	3	III		-

PG* : Packing group

15 . Regulatory information

Canada

WHMIS (Canada) : Class B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F).
Class D-2B: Material causing other toxic effects (Toxic).

Canadian lists : **CEPA Toxic substances**: None of the components are listed.
Canadian ARET: None of the components are listed.
Canadian NPRI: None of the components are listed.
Alberta Designated Substances: None of the components are listed.
Ontario Designated Substances: None of the components are listed.
Quebec Designated Substances: None of the components are listed.

Canada inventory (DSL/NDSL) : **Canada inventory:** All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

International regulations

International lists : This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, in Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).

16 . Other information

Label requirements : COMBUSTIBLE LIQUID AND VAPOR. CAUSES EYE AND SKIN IRRITATION.

Hazardous Material Information System (U.S.A.) :

Health	1
Fire hazard	2
Physical Hazard	0
Personal protection	x

HAZARD RATINGS

4- Extreme
3- Serious
2- Moderate
1- Slight
0- Minimal
See section 8 for more detailed information on personal protection.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.) :

References : ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. - Canada Gazette Part II, Vol. 122, No. 2. Registration SOR/88-64, 31 December 1987. Hazardous Products Act "Ingredient Disclosure List" - Canadian Transport of Dangerous Goods, Regulations and Schedules, Clear Language version 2005.

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Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.