



**MSDS**

# MSDS INDEX

<b>PRODUCT NAME</b>	<b>MANUFACTURER</b>	<b>CURRENT DATE: (EXPIRY)</b>
1. Gasoline-Unleaded	Petro Canada	May 14, 2015
2. Diesel Fuel	Petro Canada	August 8, 2016
3. Speed Crete Blue line	Euclid Chemical	January 30, 2017
4. Ipex 4 gry lov voc cement for PVC	Ipex	November 2014
5. Ipex PVC PPE lubricant paste	Biocanlubricants	June 17, 2013
6. PVC pipe and fittings	Ipex	March 9, 2015



# Material Safety Data Sheet

## GASOLINE, UNLEADED

000003000644

Version 1.0

Revision Date 2015/05/14

Print Date 2015/05/14



### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : GASOLINE, UNLEADED

Synonyms : 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 : 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

Emergency telephone number : Suncor Energy: +1 403-296-3000;  
Poison Control Centre: Consult local telephone directory for emergency number(s).

### 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: +1 905-804-4752

### 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
Hazard Summary	Flammable liquid Irritating to eyes and skin. May cause cancer. May cause heritable genetic damage.

#### Potential Health Effects

Primary Routes of Entry : Eye contact

# Material Safety Data Sheet

## GASOLINE, UNLEADED

000003000644



Version 1.0

Revision Date 2015/05/14

Print Date 2015/05/14

	Ingestion Inhalation Skin contact
Target Organs	: Blood Immune system
Inhalation	: Inhalation may cause central nervous system effects. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.
Skin	: May irritate skin.
Eyes	: May irritate eyes.
Ingestion	: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. Aspiration hazard if swallowed - can enter lungs and cause damage.
Chronic Exposure	: Chronic exposure to benzene may result in increased risk of leukemia and other blood disorders.
Aggravated Medical Condition	: None known.
<b>Carcinogenicity:</b>	
<b>IARC</b>	Group 1: Carcinogenic to humans
	Benzene 71-43-2
<b>ACGIH</b>	Confirmed human carcinogen
	Benzene 71-43-2
	Confirmed animal carcinogen with unknown relevance to humans
	Ethanol 64-17-5
	Gasoline, natural 8006-61-9

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

#### Hazardous components

Chemical Name	CAS-No.	Concentration (%)
---------------	---------	-------------------

# Material Safety Data Sheet

## GASOLINE, UNLEADED

000003000644



Version 1.0

Revision Date 2015/05/14

Print Date 2015/05/14

gasoline	86290-81-5	95 - 100 %
toluene	108-88-3	1 - 40 %
benzene	71-43-2	0.5 - 1.5 %
ethanol	64-17-5	0.1 - 0.3 %

### SECTION 4. FIRST AID MEASURES

- If inhaled : Artificial respiration and/or oxygen may be necessary.  
Move to fresh air.  
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 : First aider needs to protect himself.

### SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Dry chemical  
Carbon dioxide (CO<sub>2</sub>)  
Water fog.  
Foam
- Unsuitable extinguishing media : Do NOT use water jet.
- Specific hazards during firefighting : Cool closed containers exposed to fire with water spray.
- Hazardous combustion products : Carbon oxides (CO, CO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), polynuclear aromatic hydrocarbons, phenols, aldehydes, ketones, smoke and irritating vapours as products of incomplete combustion.

# Material Safety Data Sheet

## GASOLINE, UNLEADED

000003000644



Version 1.0

Revision Date 2015/05/14

Print Date 2015/05/14

Further information : Prevent fire extinguishing water from contaminating surface water or the ground water system.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
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

# Material Safety Data Sheet

## GASOLINE, UNLEADED

000003000644



Version 1.0

Revision Date 2015/05/14

Print Date 2015/05/14

gasoline	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
toluene	108-88-3	TWA	50 ppm 188 mg/m <sup>3</sup>	CA AB OEL
		TWA	20 ppm	CA BC OEL
		TWAEV	50 ppm 188 mg/m <sup>3</sup>	CA QC OEL
		TWA	20 ppm	ACGIH
benzene	71-43-2	TWA	0.5 ppm 1.6 mg/m <sup>3</sup>	CA AB OEL
		STEL	2.5 ppm 8 mg/m <sup>3</sup>	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 <sup>3</sup>	CA QC OEL
		STEV	5 ppm 15.5 mg/m <sup>3</sup>	CA QC OEL
		TWA	0.5 ppm	ACGIH
		STEL	2.5 ppm	ACGIH
ethanol	64-17-5	TWA	1,000 ppm 1,880 mg/m <sup>3</sup>	CA AB OEL
		STEL	1,000 ppm	CA BC OEL
		TWAEV	1,000 ppm 1,880 mg/m <sup>3</sup>	CA QC OEL
		STEL	1,000 ppm	ACGIH

### Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
Toluene	108-88-3	Toluene	In blood	Prior to last shift of workweek	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

- : Use only in well-ventilated areas.
- Ensure that eyewash station and safety shower are proximal to the work-station location.

# Material Safety Data Sheet

## GASOLINE, UNLEADED

000003000644



Version 1.0

Revision Date 2015/05/14

Print Date 2015/05/14

### Personal protective equipment

- Respiratory protection : 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 : 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.
- Hand protection  
Material : polyvinyl alcohol (PVA), Viton(R). Consult your PPE provider for breakthrough times and the specific glove that is best for you based on your use patterns. It should be realized that eventually any material regardless of their imperviousness, will get permeated by chemicals. Therefore, protective gloves should be regularly checked for wear and tear. At the first signs of hardening and cracks, they should be changed.
- Remarks : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Eye protection : Wear face-shield and protective suit for abnormal processing problems.
- Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.
- Protective measures : Wash contaminated clothing before re-use.
- Hygiene measures : Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash face, hands and any exposed skin thoroughly after handling.

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : 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

# Material Safety Data Sheet

## GASOLINE, UNLEADED

000003000644



Version 1.0

Revision Date 2015/05/14

Print Date 2015/05/14

pH	: No data available
Pour point	: No data available
Boiling point/boiling range	: 25 - 225 °C (77 - 437 °F)
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	
Explosive properties	: Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Containers may explode in heat of fire. Vapours may form explosive mixtures with air.

### SECTION 10. STABILITY AND REACTIVITY

Possibility of hazardous reactions	: Hazardous polymerisation does not occur. Stable under normal conditions.
Conditions to avoid	: Extremes of temperature and direct sunlight.
Incompatible materials	: Reactive with oxidising agents, acids and interhalogens.
Hazardous decomposition products	: May release CO <sub>x</sub> , NO <sub>x</sub> , 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  
Inhalation  
Skin contact

**Acute toxicity**

**Product:**

Acute oral toxicity : Remarks: No data available  
Acute inhalation toxicity : Remarks: No data available  
Acute dermal toxicity : Remarks: No data available

**Components:**

**gasoline:**

Acute oral toxicity : LD50 Rat: 13,600 mg/kg,  
Acute dermal toxicity : LD50 Rabbit: > 5,000 mg/kg,

**toluene:**

Acute oral toxicity : LD50 Rat: 5,580 mg/kg,  
Acute inhalation toxicity : LC50 Rat: 7585 ppm  
Exposure time: 4 h  
Test atmosphere: dust/mist  
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: dust/mist  
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

# Material Safety Data Sheet

## GASOLINE, UNLEADED

000003000644



Version 1.0

Revision Date 2015/05/14

Print Date 2015/05/14

### Skin corrosion/irritation

**Product:**

Remarks: No data available

**Components:**

**gasoline:**

Result: Moderate skin irritant

**toluene:**

Result: Moderate skin irritant

**benzene:**

Result: Moderate skin irritant

**ethanol:**

Result: Skin irritation

### Serious eye damage/eye irritation

**Product:**

Remarks: No data available

**Components:**

**gasoline:**

Result: Mild eye irritation

**toluene:**

Result: Mild eye irritation

**benzene:**

Result: Moderate eye irritation

**ethanol:**

Result: Eye irritation

### Respiratory or skin sensitisation

No data available

### Germ cell mutagenicity

No data available

### Carcinogenicity

No data available

### Reproductive toxicity

No data available

### STOT - single exposure

No data available

# Material Safety Data Sheet

## GASOLINE, UNLEADED

000003000644



Version 1.0

Revision Date 2015/05/14

Print Date 2015/05/14

### STOT - repeated exposure

No data available

### Aspiration toxicity

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 : Do not re-use empty containers.

# Material Safety Data Sheet

## GASOLINE, UNLEADED

000003000644

Version 1.0

Revision Date 2015/05/14

Print Date 2015/05/14



### SECTION 14. TRANSPORT INFORMATION

#### International Regulation

##### IATA-DGR

UN/ID No. : 1203  
Proper shipping name : Gasoline  
Class : 3  
Packing group : II  
Labels : 3  
Packing instruction (cargo aircraft) : 364

##### IMDG-Code

UN number : 1203  
Proper shipping name : GASOLINE  
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

Not applicable for product as supplied.

##### TDG

UN number : 1203  
Proper shipping name : GASOLINE  
Class : 3  
Packing group : II  
Labels : 3  
ERG Code : 128  
Marine pollutant : no

#### Special precautions for user

Not applicable

### SECTION 15. REGULATORY INFORMATION

**WHMIS Classification** : B2: Flammable liquid  
D2A: Very Toxic Material Causing Other Toxic Effects  
D2B: Toxic Material Causing Other Toxic Effects

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

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

**DSL** On the inventory, or in compliance with the inventory  
**TSCA** All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.

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

# Material Safety Data Sheet

## GASOLINE, UNLEADED

000003000644

Version 1.0

Revision Date 2015/05/14

Print Date 2015/05/14

---



### SECTION 16. OTHER INFORMATION

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

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

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

## DIESEL FUEL

000003000395

Version 2.0

Revision Date 2016/08/23

Print Date 2016/08/23



### SECTION 1. IDENTIFICATION

Product name : DIESEL FUEL

Synonyms : Seasonal Diesel, #1 Diesel, #2 Heating Oil, #1 Heating Oil, D50, Arctic Diesel, Farm Diesel, Marine Diesel, Low Sulphur Diesel, LSD, Ultra Low Sulphur Diesel, ULSD, Mining Diesel, Naval Distillate, Dyed Diesel, Marked Diesel, Coloured Diesel, Furnace special, Biodiesel blend, B1, B2, B5, Diesel Low Cloud (LC), Marine Gas Oil, Marine Gas Oil Dyed.

Product code : 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

Emergency telephone number  
Suncor Energy: +1 403-296-3000;  
Canutec Transportation: 1-888- 226-8832 (toll-free) or 613-996-6666;  
Poison Control Centre: Consult local telephone directory for emergency number(s).

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

Recommended use : Diesel fuels are distillate fuels suitable for use in high and medium speed internal combustion engines of the compression ignition type. Mining diesels, marine diesels, MDO and naval distillates may have a higher flash point requirement.

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

### SECTION 2. HAZARDS IDENTIFICATION

#### Emergency Overview

Appearance	Bright oily liquid.
Colour	Clear to yellow (This product may be dyed red for taxation purposes)
Odour	Mild petroleum oil like.
Hazard Summary	Combustible liquid. May cause cancer. Irritating to eyes and skin.

# SAFETY DATA SHEET

## DIESEL FUEL

000003000395



Version 2.0

Revision Date 2016/08/23

Print Date 2016/08/23

--	--

### Potential Health Effects

- Primary Routes of Entry : Eye contact  
Ingestion  
Inhalation  
Skin contact  
Skin Absorption
- Target Organs : Skin  
Eyes  
Respiratory Tract
- Inhalation : May cause respiratory tract irritation.  
Inhalation may cause central nervous system effects.  
Symptoms and signs include headache, dizziness, fatigue,  
muscular weakness, drowsiness and in extreme cases, loss of  
consciousness.
- Skin : Causes skin irritation.
- Eyes : Causes eye irritation.
- Ingestion : Ingestion may cause gastrointestinal irritation, nausea, vomit-  
ing and diarrhoea.  
Aspiration hazard if swallowed - can enter lungs and cause  
damage.
- Aggravated Medical Condi- : None known.  
tion

### 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

Confirmed animal carcinogen with unknown relevance to humans

Fuel Oil No. 1

8008-20-6

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

### Hazardous components

Chemical name	CAS-No.	Concentration
---------------	---------	---------------

# SAFETY DATA SHEET

## DIESEL FUEL

000003000395



Version 2.0

Revision Date 2016/08/23

Print Date 2016/08/23

kerosine (petroleum), hydrodesulfurized	64742-81-0	70 - 100 %
kerosine (petroleum)	8008-20-6	
fuels, diesel	68334-30-5	
fuel oil no. 2	68476-30-2	
Alkanes, C10-20-branched and linear	928771-01-1	0 - 25 %
Soybean oil, Methyl ester	67784-80-9	0 - 5 %
Rape oil, Methyl ester	73891-99-3	
Fatty acids, tallow, Methyl esters	61788-61-2	

### 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 : First aider needs to protect himself.

### SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Dry chemical  
Carbon dioxide (CO<sub>2</sub>)  
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, CO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), sulphur oxides (SO<sub>x</sub>), sulphur compounds (H<sub>2</sub>S), smoke and irritating

# SAFETY DATA SHEET

## DIESEL FUEL

000003000395



Version 2.0

Revision Date 2016/08/23

Print Date 2016/08/23

---

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 : Use personal protective equipment.  
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

# SAFETY DATA SHEET

## DIESEL FUEL

000003000395



Version 2.0

Revision Date 2016/08/23

Print Date 2016/08/23

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
kerosine (petroleum), hydrodesulfurized	64742-81-0	TWA	200 mg/m <sup>3</sup> (As total hydrocarbon vapour)	ACGIH
		TWA	200 mg/m <sup>3</sup> (As total hydrocarbon vapour)	ACGIH
kerosine (petroleum)	8008-20-6	TWA	200 mg/m <sup>3</sup> (total hydrocarbon vapor)	CA BC OEL
		TWA	200 mg/m <sup>3</sup> (total hydrocarbon vapor)	CA AB OEL
		TWA	200 mg/m <sup>3</sup> (total hydrocarbon vapor)	ACGIH

**Engineering measures** : 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 : 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.

# SAFETY DATA SHEET

## DIESEL FUEL

000003000395



Version 2.0

Revision Date 2016/08/23

Print Date 2016/08/23

Eye protection	: Wear face-shield and protective suit for abnormal processing problems.
Skin and body protection	: Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.
Protective measures	: Wash contaminated clothing before re-use.
Hygiene measures	: Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash face, hands and any exposed skin thoroughly after handling.

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

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

# SAFETY DATA SHEET

## DIESEL FUEL



000003000395

Version 2.0

Revision Date 2016/08/23

Print Date 2016/08/23

### 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)

### Explosive properties

: Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Runoff to sewer may create fire or explosion hazard.

---

## SECTION 10. STABILITY AND REACTIVITY

Possibility of hazardous reactions : Hazardous polymerisation does not occur. Stable under normal conditions.

Conditions to avoid : Extremes of temperature and direct sunlight.

Incompatible materials : Reactive with oxidising agents and acids.

Hazardous decomposition products : May release CO<sub>x</sub>, NO<sub>x</sub>, SO<sub>x</sub>, H<sub>2</sub>S, smoke and irritating vapours when heated to decomposition.

---

## SECTION 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

Eye contact

Ingestion

Inhalation

Skin contact

Skin Absorption

### Acute toxicity

#### Product:

Acute oral toxicity : Remarks: No data available

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : Remarks: No data available

#### Components:

##### **kerosine (petroleum), hydrodesulfurized:**

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

# SAFETY DATA SHEET

## DIESEL FUEL

000003000395



Version 2.0

Revision Date 2016/08/23

Print Date 2016/08/23

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg,

### **kerosine (petroleum):**

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,

### **fuels, diesel:**

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

Acute dermal toxicity : LD50 (Mouse): 24,500 mg/kg,

### **fuel oil no. 2:**

Acute oral toxicity : LD50 (Rat): 12,000 mg/kg,

Acute inhalation toxicity : LC50 (Rat): 4.1 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist

### **Skin corrosion/irritation**

#### **Product:**

Remarks: No data available

### **Serious eye damage/eye irritation**

#### **Product:**

Remarks: No data available

### **Respiratory or skin sensitisation**

No data available

### **Germ cell mutagenicity**

No data available

### **Carcinogenicity**

No data available

### **Reproductive toxicity**

No data available

### **STOT - single exposure**

No data available

### **STOT - repeated exposure**

No data available

# SAFETY DATA SHEET

## DIESEL FUEL

000003000395

Version 2.0

Revision Date 2016/08/23

Print Date 2016/08/23



### 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 : Do not re-use empty containers.

### SECTION 14. TRANSPORT INFORMATION

#### International Regulations

# SAFETY DATA SHEET

## DIESEL FUEL



000003000395

Version 2.0

Revision Date 2016/08/23

Print Date 2016/08/23

---

### IATA-DGR

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

### IMDG-Code

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

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

### National Regulations

#### TDG

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

---

## SECTION 15. REGULATORY INFORMATION

**WHMIS Classification** : B3: Combustible Liquid  
D2A: Very Toxic Material Causing Other Toxic Effects  
D2B: Toxic Material Causing Other Toxic Effects

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

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

**DSL** : On the inventory, or in compliance with the inventory  
**TSCA** : All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.  
**EINECS** : On the inventory, or in compliance with the inventory

---

## SECTION 16. OTHER INFORMATION

# SAFETY DATA SHEET

## DIESEL FUEL

000003000395



Version 2.0

Revision Date 2016/08/23

Print Date 2016/08/23

---

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

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

Revision Date : 2016/08/23

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

## 1. Identification

**Material name:** SPEED CRETE BLUE LINE

**Material:** TR5102650

**Recommended use and restriction on use**

**Recommended use:** Cement, Portland, chemicals

**Restrictions on use:** Not known.

**Manufacturer/Importer/Supplier/Distributor Information**

Euclid Admixture Canada Inc.

2835 Grand-Allee

Saint Hubert QC J4T 2R4

CA

**Contact person:**

EH&S Department

**Telephone:**

(450)465-2233

**Emergency telephone number:**

1-800-424-9300 (US); 1-613-996-6666 (Canada)

## 2. Hazard(s) identification

### Hazard Classification

#### Health Hazards

Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 1
Skin sensitizer	Category 1
Carcinogenicity	Category 1A
Specific Target Organ Toxicity - Single Exposure	Category 3 <sup>1</sup>

#### Target Organs

1. Respiratory tract irritation.

#### Unknown toxicity - Health

Acute toxicity, oral	90.93 %
Acute toxicity, dermal	92.25 %
Acute toxicity, inhalation, vapor	100 %
Acute toxicity, inhalation, dust or mist	100 %

### Label Elements

**Hazard Symbol:**



**Signal Word:** Danger

**Hazard Statement:** Causes skin irritation.  
May cause an allergic skin reaction.  
Causes serious eye damage.  
May cause respiratory irritation.  
May cause cancer.

**Precautionary Statements**

**Prevention:** Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing must not be allowed out of the workplace. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Use only outdoors or in a well-ventilated area.

**Response:** IF INHALED: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Immediately call a POISON CENTER/doctor. Specific treatment (see this label). Wash contaminated clothing before reuse.

**Storage:** Store locked up. Store in well-ventilated place. Keep container tightly closed.

**Disposal:** Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**Hazard(s) not otherwise classified (HNOC):** None.

**3. Composition/information on ingredients**

**Mixtures**

Chemical Identity	CAS number	Content in percent (%)*
-------------------	------------	-------------------------



Portland cement	65997-15-1	50 - <100%
Crystalline Silica (Quartz)/ Silica Sand	14808-60-7	20 - <50%
Kaolin Clay	1332-58-7	5 - <10%
Gypsum (Calcium Sulfate)	10034-76-1	5 - <10%
Calcium salt	7778-18-9	1 - <5%
Titanium dioxide	13463-67-7	0.1 - <1%
Ammonium Chloride	12125-02-9	0.1 - <1%

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

#### 4. First-aid measures

<b>Ingestion:</b>	Call a POISON CENTER/doctor/...if you feel unwell. Rinse mouth.
<b>Inhalation:</b>	Move to fresh air.
<b>Skin Contact:</b>	Get medical attention. Destroy or thoroughly clean contaminated shoes. Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. If skin irritation or an allergic skin reaction develops, get medical attention.
<b>Eye contact:</b>	Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Call a physician or poison control center immediately.

#### Most important symptoms/effects, acute and delayed

<b>Symptoms:</b>	Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping. Extreme irritation of eyes and mucous membranes, including burning and tearing. Respiratory tract irritation.
------------------	---

#### Indication of immediate medical attention and special treatment needed

<b>Treatment:</b>	Symptoms may be delayed.
-------------------	--------------------------

#### 5. Fire-fighting measures

**General Fire Hazards:** No unusual fire or explosion hazards noted.

#### Suitable (and unsuitable) extinguishing media

**Suitable extinguishing media:** Use fire-extinguishing media appropriate for surrounding materials.

**Unsuitable extinguishing media:** Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical:** During fire, gases hazardous to health may be formed.

#### Special protective equipment and precautions for firefighters



**Special fire fighting procedures:** No data available.

**Special protective equipment for fire-fighters:** Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures:** See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

**Methods and material for containment and cleaning up:** Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

**Notification Procedures:** In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

**Environmental Precautions:** Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

## 7. Handling and storage

**Precautions for safe handling:** Ventilate well, avoid breathing vapors. Use approved respirator if air contamination is above accepted level. Use mechanical ventilation in case of handling which causes formation of dust. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Do not get in eyes. Wash hands thoroughly after handling. Avoid contact with skin. Avoid contact with eyes, skin, and clothing.

**Conditions for safe storage, including any incompatibilities:** Store locked up.

## 8. Exposure controls/personal protection

### Control Parameters

#### Occupational Exposure Limits

Chemical Identity	type	Exposure Limit Values	Source
Portland cement - Respirable fraction.	TWA	1 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values (2011)
Portland cement - Total dust.	PEL	15 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Portland cement - Respirable fraction.	PEL	5 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Portland cement	TWA	50 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)
Crystalline Silica (Quartz)/ Silica Sand - Respirable fraction.	TWA	0.025 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values (2011)
Crystalline Silica (Quartz)/	PEL	0.05 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air



Silica Sand			Contaminants (29 CFR 1910.1000) (03 2016)
Crystalline Silica (Quartz)/ Silica Sand - Respirable.	TWA	2.4 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)
	TWA	0.1 mg/m <sup>3</sup>	US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)
Kaolin Clay - Respirable fraction.	TWA	2 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values (2011)
	PEL	5 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Kaolin Clay - Total dust.	PEL	15 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	50 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)
Kaolin Clay - Respirable fraction.	TWA	15 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)
	TWA	5 mg/m <sup>3</sup>	US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)
Kaolin Clay - Total dust.	TWA	15 mg/m <sup>3</sup>	US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)
Gypsum (Calcium Sulfate) - Inhalable fraction.	TWA	10 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values (2011)
Gypsum (Calcium Sulfate) - Total dust.	PEL	15 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Gypsum (Calcium Sulfate) - Respirable fraction.	PEL	5 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	PEL	5 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Gypsum (Calcium Sulfate) - Total dust.	PEL	15 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Calcium salt - Total	REL	10 mg/m <sup>3</sup>	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
Calcium salt - Respirable.	REL	5 mg/m <sup>3</sup>	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
Calcium salt - Total dust.	TWA	15 mg/m <sup>3</sup>	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Calcium salt - Respirable fraction.	TWA	5 mg/m <sup>3</sup>	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Calcium salt - Total dust.	TWA	15 mg/m <sup>3</sup>	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
Calcium salt - Respirable fraction.	TWA	5 mg/m <sup>3</sup>	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
Calcium salt	AN ESL	5 µg/m <sup>3</sup>	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (03 2014)
	ST ESL	50 µg/m <sup>3</sup>	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (03 2014)
Calcium salt - Inhalable fraction.	TWA	10 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values (2011)
Calcium salt - Total dust.	PEL	15 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Calcium salt - Respirable fraction.	PEL	5 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Titanium dioxide	TWA	10 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values (2011)
Titanium dioxide - Total dust.	PEL	15 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Titanium dioxide - Respirable fraction.	TWA	15 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)
Titanium dioxide - Total dust.	TWA	15 mg/m <sup>3</sup>	US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)



			2016)
Titanium dioxide - Respirable fraction.	TWA	5 mg/m <sup>3</sup>	US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)
Titanium dioxide - Total dust.	TWA	50 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)
Ammonium Chloride - Fume.	TWA	10 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values (2011)
	STEL	20 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values (2011)
Ammonium Chloride - Total dust.	TWA	50 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)
Ammonium Chloride - Respirable fraction.	TWA	15 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)
	TWA	5 mg/m <sup>3</sup>	US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)
Ammonium Chloride - Total dust.	TWA	15 mg/m <sup>3</sup>	US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)

Chemical name	type	Exposure Limit Values	Source
Portland cement - Total dust.	TWA	10 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Portland cement - Respirable fraction.	TWA	3 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Portland cement - Respirable fraction.	TWA	1 mg/m <sup>3</sup>	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
Portland cement - Total dust.	TWA	10 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Portland cement - Respirable dust.	TWA	5 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Crystalline Silica (Quartz)/ Silica Sand - Respirable fraction.	TWA	0.025 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Crystalline Silica (Quartz)/ Silica Sand - Respirable fraction.	TWA	0.10 mg/m <sup>3</sup>	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
Crystalline Silica (Quartz)/ Silica Sand - Respirable dust.	TWA	0.1 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Kaolin Clay - Respirable.	TWA	2 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Kaolin Clay - Respirable fraction.	TWA	2 mg/m <sup>3</sup>	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Kaolin Clay - Respirable dust.	TWA	5 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Gypsum (Calcium Sulfate) - Total dust.	STEL	20 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	TWA	10 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances,



			Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Gypsum (Calcium Sulfate) - Respirable fraction.	TWA	3 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Gypsum (Calcium Sulfate) - Inhalable	TWA	10 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Gypsum (Calcium Sulfate) - Inhalable fraction.	TWA	10 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Gypsum (Calcium Sulfate) - Total dust.	TWA	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
	TWA	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Gypsum (Calcium Sulfate) - Respirable dust.	TWA	5 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
	TWA	5 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Calcium salt	TWA	10 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009)
Calcium salt - Inhalable	TWA	10 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Calcium salt - Inhalable fraction.	TWA	10 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Calcium salt - Total dust.	TWA	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Calcium salt - Respirable dust.	TWA	5 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Titanium dioxide - Total dust.	TWA	10 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Titanium dioxide - Respirable fraction.	TWA	3 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Titanium dioxide	TWA	10 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Titanium dioxide - Total dust.	TWA	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)

**Appropriate Engineering Controls**

Mechanical ventilation or local exhaust ventilation may be required. Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of dust.

**Individual protection measures, such as personal protective equipment**

<b>General information:</b>	Provide easy access to water supply and eye wash facilities. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
<b>Eye/face protection:</b>	Wear a full-face respirator, if needed. Wear safety glasses with side shields (or goggles) and a face shield.
<b>Skin Protection</b>	
<b>Hand Protection:</b>	Use suitable protective gloves if risk of skin contact.
<b>Other:</b>	Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.
<b>Respiratory Protection:</b>	In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.
<b>Hygiene measures:</b>	Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. Do not get in eyes. Wash contaminated clothing before reuse. Avoid contact with skin. Contaminated work clothing should not be allowed out of the workplace.

**9. Physical and chemical properties****Appearance**

<b>Physical state:</b>	solid
<b>Form:</b>	Powder
<b>Color:</b>	Gray
<b>Odor:</b>	Odorless
<b>Odor threshold:</b>	No data available.
<b>pH:</b>	No data available.
<b>Melting point/freezing point:</b>	No data available.
<b>Initial boiling point and boiling range:</b>	No data available.
<b>Flash Point:</b>	No data available.
<b>Evaporation rate:</b>	No data available.
<b>Flammability (solid, gas):</b>	No
<b>Upper/lower limit on flammability or explosive limits</b>	
<b>Flammability limit - upper (%):</b>	No data available.
<b>Flammability limit - lower (%):</b>	No data available.
<b>Explosive limit - upper (%):</b>	No data available.
<b>Explosive limit - lower (%):</b>	No data available.
<b>Vapor pressure:</b>	No data available.
<b>Vapor density:</b>	No data available.



---

<b>Relative density:</b>	3.0
<b>Solubility(ies)</b>	
<b>Solubility in water:</b>	Miscible with water.
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Auto-ignition temperature:</b>	No data available.
<b>Decomposition temperature:</b>	No data available.
<b>Viscosity:</b>	No data available.

## 10. Stability and reactivity

<b>Reactivity:</b>	No data available.
<b>Chemical Stability:</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions:</b>	No data available.
<b>Conditions to avoid:</b>	Avoid heat or contamination.
<b>Incompatible Materials:</b>	No data available.
<b>Hazardous Decomposition Products:</b>	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation:</b>	In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
<b>Skin Contact:</b>	Causes skin irritation. May cause an allergic skin reaction.
<b>Eye contact:</b>	Causes serious eye damage.
<b>Ingestion:</b>	May be ingested by accident. Ingestion may cause irritation and malaise.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Inhalation:</b>	No data available.
<b>Skin Contact:</b>	No data available.
<b>Eye contact:</b>	No data available.
<b>Ingestion:</b>	No data available.



**Information on toxicological effects**

**Acute toxicity (list all possible routes of exposure)**

**Oral**

**Product:** ATEmix: 12,277.17 mg/kg

**Dermal**

**Product:** Not classified for acute toxicity based on available data.

**Inhalation**

**Product:**

**Repeated dose toxicity**

**Product:** No data available.

**Skin Corrosion/Irritation**

**Product:** No data available.

**Serious Eye Damage/Eye Irritation**

**Product:** No data available.

**Respiratory or Skin Sensitization**

**Product:** No data available.

**Carcinogenicity**

**Product:** No data available.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

Crystalline Silica (Quartz)/ Silica Sand Overall evaluation: Carcinogenic to humans.

Titanium dioxide Overall evaluation: Possibly carcinogenic to humans.

**US. National Toxicology Program (NTP) Report on Carcinogens:**

Crystalline Silica (Quartz)/ Silica Sand Known To Be Human Carcinogen.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):**

No carcinogenic components identified



**Germ Cell Mutagenicity**

**In vitro**  
**Product:** No data available.

**In vivo**  
**Product:** No data available.

**Reproductive toxicity**

**Product:** No data available.

**Specific Target Organ Toxicity - Single Exposure**

**Product:** No data available.

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** No data available.

**Target Organs**

Specific Target Organ Toxicity - Single Exposure: Respiratory tract irritation.

**Aspiration Hazard**

**Product:** No data available.

**Other effects:** No data available.

**12. Ecological information**

**Ecotoxicity:**

**Acute hazards to the aquatic environment:**

**Fish**  
**Product:** No data available.

**Aquatic Invertebrates**  
**Product:** No data available.

**Chronic hazards to the aquatic environment:**

**Fish**  
**Product:** No data available.

**Aquatic Invertebrates**  
**Product:** No data available.

**Toxicity to Aquatic Plants**  
**Product:** No data available.

**Persistence and Degradability**

**Biodegradation**



**Product:** No data available.

**BOD/COD Ratio**

**Product:** No data available.

**Bioaccumulative potential**

**Bioconcentration Factor (BCF)**

**Product:** No data available.

**Partition Coefficient n-octanol / water (log Kow)**

**Product:** No data available.

**Mobility in soil:** No data available.

**Other adverse effects:** No data available.

**13. Disposal considerations**

**Disposal instructions:** Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**Contaminated Packaging:** No data available.

**14. Transport information**

**TDG:**

Not Regulated

**CFR / DOT:**

Not Regulated

**IMDG:**

Not Regulated

**15. Regulatory information**

**US Federal Regulations**

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

None present or none present in regulated quantities.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

None present or none present in regulated quantities.



**CERCLA Hazardous Substance List (40 CFR 302.4):**

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Ammonium Chloride	5000 lbs.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**

- Immediate (Acute) Health Hazards
- Delayed (Chronic) Health Hazard

**SARA 302 Extremely Hazardous Substance**

None present or none present in regulated quantities.

**SARA 304 Emergency Release Notification**

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Ammonium Chloride	5000 lbs.

**SARA 311/312 Hazardous Chemical**

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
Portland cement	10000 lbs
Crystalline Silica (Quartz)/ Silica Sand	10000 lbs
Kaolin Clay	10000 lbs
Gypsum (Calcium Sulfate)	10000 lbs
Calcium salt	10000 lbs
Titanium dioxide	10000 lbs
Ammonium Chloride	10000 lbs

**SARA 313 (TRI Reporting)**

None present or none present in regulated quantities.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

None present or none present in regulated quantities.

**Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)**

None present or none present in regulated quantities.

**US State Regulations**

**US. California Proposition 65**

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

Crystalline Silica (Quartz)/ Silica Sand	Carcinogenic. 09 2011
Titanium dioxide	Carcinogenic. 09 2011

**US. New Jersey Worker and Community Right-to-Know Act**

<u>Chemical Identity</u>
Portland cement
Crystalline Silica (Quartz)/ Silica Sand
Kaolin Clay
Gypsum (Calcium Sulfate)
Calcium salt



**US. Massachusetts RTK - Substance List**

**Chemical Identity**

Portland cement  
Crystalline Silica (Quartz)/ Silica Sand  
Kaolin Clay  
Gypsum (Calcium Sulfate)  
Calcium salt

**US. Pennsylvania RTK - Hazardous Substances**

**Chemical Identity**

Portland cement  
Crystalline Silica (Quartz)/ Silica Sand  
Kaolin Clay  
Gypsum (Calcium Sulfate)  
Calcium salt

**US. Rhode Island RTK**

**Chemical Identity**

Portland cement  
Crystalline Silica (Quartz)/ Silica Sand  
Kaolin Clay

**International regulations**

**Montreal protocol**

not applicable

**Stockholm convention**

not applicable

**Rotterdam convention**

not applicable

**Kyoto protocol**

not applicable

**VOC:**

Regulatory VOC (less water and  
exempt solvent) : 0 g/l

VOC Method 310 : 0.00 %

**Inventory Status:**

Australia AICS:	All components in this product are listed on or exempt from the Inventory.
EINECS, ELINCS or NLP:	One or more components in this product are not listed on or exempt from the Inventory.
Japan (ENCS) List:	One or more components in this product are not listed on or exempt from the Inventory.
China Inv. Existing Chemical Substances:	All components in this product are listed on or exempt from the Inventory.
Korea Existing Chemicals Inv. (KECI):	One or more components in this product are not listed on or exempt from the Inventory.
Canada NDSL Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
Philippines PICCS:	One or more components in this product are not listed on or exempt from the Inventory.
New Zealand Inventory of Chemicals:	All components in this product are listed on or exempt from the Inventory.
Japan ISHL Listing:	One or more components in this product are not listed on or exempt from the Inventory.
Japan Pharmacopoeia Listing:	One or more components in this product are not listed on or exempt from the Inventory.
Canada DSL Inventory List:	All components in this product are listed on or exempt from the Inventory.
US TSCA Inventory:	All components in this product are listed on or exempt from the Inventory.

**16. Other information, including date of preparation or last revision**

<b>Revision Date:</b>	01/30/2017
<b>Version #:</b>	2.0
<b>Further Information:</b>	No data available.



EUCLID CHEMICAL

Version: 2.0  
Revision Date: 01/30/2017

---

**Disclaimer:**

For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.

**SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION****PRODUCT NAME:** IPEX 4 GRY Low VOC General Purpose Cement for PVC Plastic Pipe**PRODUCT USE:** Low VOC Solvent Cement for PVC Plastic Pipe**SUPPLIER:** IPEX Inc.  
807 Pharmacy Avenue  
Scarborough, Ontario M1L 3K2, CAN**MANUFACTURER:** IPS Corporation  
17109 South Main Street, Gardena, CA 90248-3127  
P.O. Box 379, Gardena, CA 90247-0379  
Tel. 1-310-898-3300**EMERGENCY:** Transportation: CHEMTEL Tel. 800.255-3924, +1 813-248-0585 (International) **Medical:** CHEMTEL Tel. 800-255-3924, +1 813-248-0585 (International)**SECTION 2 - HAZARDS IDENTIFICATION****GHS CLASSIFICATION:**

Health		Environmental		Physical	
Acute Toxicity:	Category 4	Acute Toxicity:	None Known	Flammable Liquid	Category 2
Skin Irritation:	Category 3	Chronic Toxicity:	None Known		
Skin Sensitization:	NO				
Eye:	Category 2				

**GHS LABEL:****Signal Word:**

Danger

**WHMIS CLASSIFICATION:** CLASS B, DIVISION 2

CLASS D, DIVISION 2B

Hazard Statements	Precautionary Statements
H225: Highly flammable liquid and vapor	P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking
H319: Causes serious eye irritation	P261: Avoid breathing dust/fume/gas/mist/vapors/spray
H332: Harmful if inhaled	P280: Wear protective gloves/protective clothing/eye protection/face protection
H335: May cause respiratory irritation	P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
H351: Suspected of causing cancer	P403+P233: Store in a well ventilated place. Keep container tightly closed
EUH019: May form explosive peroxides	P501: Dispose of contents/container in accordance with local regulation

**SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS**

	CAS#	EINECS #	REACH	CONCENTRATION
			Pre-registration Number	% by Weight
Tetrahydrofuran (THF)	109-99-9	203-726-8	05-2116297729-22-0000	25 - 50
Methyl Ethyl Ketone (MEK)	78-93-3	201-159-0	05-2116297728-24-0000	5 - 36
Cyclohexanone	108-94-1	203-631-1	05-2116297718-25-0000	15 - 30

All of the constituents of this adhesive product are listed on the TSCA inventory of chemical substances maintained by the US EPA, or are exempt from that listing.  
 \* Indicates this chemical is subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (40CFR372).  
 # indicates that this chemical is found on Proposition 65's List of chemicals known to the State of California to cause cancer or reproductive toxicity.

**SECTION 4 - FIRST AID MEASURES**

**Contact with eyes:** Flush eyes immediately with plenty of water for 15 minutes and seek medical advice immediately.  
**Skin contact:** Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water. If irritation develops, seek medical advice.  
**Inhalation:** Remove to fresh air. If breathing is stopped, give artificial respiration. If breathing is difficult, give oxygen. Seek medical advice.  
**Ingestion:** Rinse mouth with water. Give 1 or 2 glasses of water or milk to dilute. Do not induce vomiting. Seek medical advice immediately.

**SECTION 5 - FIREFIGHTING MEASURES**

**Suitable Extinguishing Media:** Dry chemical powder, carbon dioxide gas, foam, Halon, water fog. **HMIS** **NFPA** **0-Minimal**

**Unsuitable Extinguishing Media:** Water spray or stream. **Health** **2** **2** **1-Slight**

**Exposure Hazards:** Inhalation and dermal contact **Flammability** **3** **3** **2-Moderate**

**Combustion Products:** Oxides of carbon, hydrogen chloride and smoke **Reactivity** **0** **0** **3-Serious**

**Protection for Firefighters:** Self-contained breathing apparatus or full-face positive pressure airline masks. **PPE** **B** **4-Severe**

**SECTION 6 - ACCIDENTAL RELEASE MEASURES**

**Personal precautions:** Keep away from heat, sparks and open flame.  
Provide sufficient ventilation, use explosion-proof exhaust ventilation equipment or wear suitable respiratory protective equipment.  
Prevent contact with skin or eyes (see section 8).

**Environmental Precautions:** Prevent product or liquids contaminated with product from entering sewers, drains, soil or open water course.

**Methods for Cleaning up:** Clean up with sand or other inert absorbent material. Transfer to a closable steel vessel.

**Materials not to be used for clean up:** Aluminum or plastic containers

**SECTION 7 - HANDLING AND STORAGE**

**Handling:** Avoid breathing of vapor, avoid contact with eyes, skin and clothing.  
Keep away from ignition sources, use only electrically grounded handling equipment and ensure adequate ventilation/fume exhaust hoods.  
Do not eat, drink or smoke while handling.

**Storage:** Store in ventilated room or shade below 44°C (111°F) and away from direct sunlight.  
Keep away from ignition sources and incompatible materials: caustics, ammonia, inorganic acids, chlorinated compounds, strong oxidizers and isocyanates.  
Follow all precautionary information on container label, product bulletins and solvent cementing literature.

**SECTION 8 - PRECAUTIONS TO CONTROL EXPOSURE / PERSONAL PROTECTION**

EXPOSURE LIMITS:	Component	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL	OSHA PEL-Ceiling	CAL/OSHA PEL	CAL/OSHA Ceiling	CAL/OSHA STEL
	Tetrahydrofuran (THF)	50 ppm	100 ppm	200 ppm	N/E	N/E	200 ppm	N/E	250 ppm
	Methyl Ethyl Ketone (MEK)	200 ppm	300 ppm	200 ppm	N/E	N/E	200 ppm	N/E	300 ppm
	Cyclohexanone	20 ppm	50 ppm	50 ppm	N/E	N/E	25 ppm	N/E	N/E

**Engineering Controls:** Use local exhaust as needed.**Monitoring:** Maintain breathing zone airborne concentrations below exposure limits.**Personal Protective Equipment (PPE):****Eye Protection:** Avoid contact with eyes, wear splash-proof chemical goggles, face shield, safety glasses (spectacles) with brow guards and side shields, etc. as may be appropriate for the exposure.**Skin Protection:** Prevent contact with the skin as much as possible. Butyl rubber gloves should be used for frequent immersion.

Use of solvent-resistant gloves or solvent-resistant barrier cream should provide adequate protection when normal adhesive application practices and procedures are used for making structural bonds.

**Respiratory Protection:** Prevent inhalation of the solvents. Use in a well-ventilated room. Open doors and/or windows to ensure airflow and air changes. Use local exhaust ventilation to remove airborne contaminants from employee breathing zone and to keep contaminants below levels listed above. With normal use, the Exposure Limit Value will not usually be reached. When limits approached, use respiratory protection equipment.

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance:</b>	Gray, medium syrupy liquid	<b>Odor Threshold:</b>	0.88 ppm (Cyclohexanone)
<b>Odor:</b>	Ketone	<b>Boiling Range:</b>	66°C (151°F) to 156°C (313°F)
<b>pH:</b>	Not Applicable	<b>Evaporation Rate:</b>	> 1.0 (BUAC = 1)
<b>Melting/Freezing Point:</b>	-108.5°C (-163.3°F) Based on first melting component: THF	<b>Flammability:</b>	Category 2
<b>Boiling Point:</b>	66°C (151°F) Based on first boiling component: THF	<b>Flammability Limits:</b>	<b>LEL:</b> 1.1% based on Cyclohexanone <b>UEL:</b> 11.8% based on THF
<b>Flash Point:</b>	-20°C (-4°F) TCC based on THF	<b>Vapor Pressure:</b>	129 mm Hg @ 20°C (68°F) based on THF
<b>Specific Gravity:</b>	0.9611 @23°C ( 73°F)	<b>Vapor Density:</b>	>2 (Air = 1)
<b>Solubility:</b>	Solvent portion soluble in water. Resin portion separates out.	<b>Other Data: Viscosity:</b>	Medium bodied
<b>Partition Coefficient n-octanol/water:</b>	Not Available		
<b>Auto-ignition Temperature:</b>	321°C (610°F) based on THF		
<b>Decomposition Temperature:</b>	Not Applicable		
<b>VOC Content:</b>	When applied as directed, per SCAQMD Rule 1168, Test Method 316A, VOC content is: ≤ 510 g/l.		

**SECTION 10 - STABILITY AND REACTIVITY**

<b>Stability:</b>	Stable
<b>Hazardous decomposition products:</b>	None in normal use. When forced to burn, this product gives off oxides of carbon, hydrogen chloride and smoke.
<b>Conditions to avoid:</b>	Keep away from heat, sparks, open flame and other ignition sources.
<b>Incompatible Materials:</b>	Oxidizers, strong acids and bases, amines, ammonia

**SECTION 11 - TOXICOLOGICAL INFORMATION**

Likely Routes of Exposure: Inhalation, Eye and Skin Contact

**Acute symptoms and effects:**

<b>Inhalation:</b>	Severe overexposure may result in nausea, dizziness, headache. Can cause drowsiness, irritation of eyes and nasal passages.
<b>Eye Contact:</b>	Vapors slightly uncomfortable. Overexposure may result in severe eye injury with corneal or conjunctival inflammation on contact with the liquid.
<b>Skin Contact:</b>	Liquid contact may remove natural skin oils resulting in skin irritation. Dermatitis may occur with prolonged contact.
<b>Ingestion:</b>	May cause nausea, vomiting, diarrhea and mental sluggishness.

**Chronic (long-term) effects:**

Category 2 Carcinogen

**Toxicity:**LD<sub>50</sub>LC<sub>50</sub>**Target Organs**

Tetrahydrofuran (THF)	Oral: 2842 mg/kg (rat)	Inhalation 3 hrs. 21,000 mg/m <sup>3</sup> (rat)	STOT SE3
Methyl Ethyl Ketone (MEK)	Oral: 2737 mg/kg (rat), Dermal: 6480 mg/kg (rabbit)	Inhalation 8 hrs. 23,500 mg/m <sup>3</sup> (rat)	STOT SE3
Cyclohexanone	Oral: 1535 mg/kg (rat), Dermal: 948 mg/kg (rabbit)	Inhalation 4 hrs. 8,000 PPM (rat)	

<b>Reproductive Effects</b>	<b>Teratogenicity</b>	<b>Mutagenicity</b>	<b>Embryotoxicity</b>	<b>Sensitization to Product</b>	<b>Synergistic Products</b>
Not Established	Not Established	Not Established	Not Established	Not Established	Not Established

**SECTION 12 - ECOLOGICAL INFORMATION**

<b>Ecotoxicity:</b>	None Known
<b>Mobility:</b>	In normal use, emission of volatile organic compounds (VOC's) to the air takes place, typically at a rate of ≤ 510 g/l.
<b>Degradability:</b>	Not readily biodegradable
<b>Bioaccumulation:</b>	Minimal to none.

**SECTION 13 - WASTE DISPOSAL CONSIDERATIONS**

Follow local and national regulations. Consult disposal expert.

**SECTION 14 - TRANSPORT INFORMATION**

<b>Proper Shipping Name:</b>	Adhesives
<b>Hazard Class:</b>	3
<b>Secondary Risk:</b>	None
<b>Identification Number:</b>	UN 1133
<b>Packing Group:</b>	PG II
<b>Label Required:</b>	Class 3 Flammable Liquid
<b>Marine Pollutant:</b>	NO

**EXCEPTION for Ground Shipping**

**DOT Limited Quantity:** Up to 5L per inner packaging, 30 kg gross weight per package.  
**Consumer Commodity:** Depending on packaging, these quantities may qualify under DOT as "ORM-D".

**TDG INFORMATION**

<b>TDG CLASS:</b>	FLAMMABLE LIQUID 3
<b>SHIPPING NAME:</b>	ADHESIVES
<b>UN NUMBER/PACKING GROUP:</b>	UN 1133, PG II

**SECTION 15 - REGULATORY INFORMATION**

<b>Precautionary Label Information:</b>	Highly Flammable, Irritant, Carc. Cat. 2	<b>Ingredient Listings:</b>	USA TSCA, Europe EINECS, Canada DSL, Australia AICS, Korea ECL/TCCL, Japan MITI (ENCS)
<b>Symbols:</b>	F, Xi		
<b>Risk Phrases:</b>	R11: Highly flammable. R20: Harmful by inhalation. R36/37: Irritating to eyes and respiratory system.	R66: Repeated exposure may cause skin dryness or cracking R67: Vapors may cause drowsiness and dizziness	
<b>Safety Phrases:</b>	S9: Keep container in a well-ventilated place. S16: Keep away from sources of ignition - No smoking. S25: Avoid contact with eyes.	S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S33: Take precautionary measures against static discharges. S46: If swallowed, seek medical advise immediately and show this container or label.	

**SECTION 16 - OTHER INFORMATION**

<b>Specification Information:</b>	All ingredients are compliant with the requirements of the European Directive on RoHS (Restriction of Hazardous Substances).	
<b>Department issuing data sheet:</b>	Safety Health & Environmental Affairs	
<b>Training necessary:</b>	Yes, training in practices and procedures contained in product literature.	
<b>Reissue date / reason for reissue:</b>	11/13/2014 / Updated GHS Standard Format	
<b>Intended Use of Product:</b>	Solvent Cement for PVC Plastic Pipe	

This product is intended for use by skilled individuals at their own risk. The information contained herein is based on data considered accurate based on current state of knowledge and experience. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof.

## SECTION 1 - MATERIAL IDENTIFICATION AND USE

CAS #

Manufacturer's Name <b>bioCANlubricants Ltd</b>	Suppliers Name <b>bioCANlubricants Ltd</b>
Manufacturer's Street Address <b>100 Wilkinson Road, Unit 12</b>	Suppliers Address <b>100 Wilkinson Road, Unit 12</b>
Manufacturer's City <b>BRAMPTON</b>	Suppliers City <b>BRAMPTON</b>
Manufacturer's Province <b>ONTARIO</b>	Suppliers Province <b>ONTARIO</b>
Manufacturer's Postal Code <b>L6T 4Y9</b>	Suppliers Postal Code <b>L6T 4Y9</b>
Manufacturer's Emergency Telephone No. <b>905-453-7007</b>	Suppliers Emergency Telephone No. <b>416-884-1635</b>

## SECTION 11 - HAZARDOUS INGREDIENTS OF MATERIAL

Hazardous Ingredients	Approximate % Concentration	C.A.S. N.A. or U.N. Numbers	LD50 Of Material Specify Species and Route	LC 50 Specify Species
<b>this is not a WHMIS controlled product</b>				

## SECTION 111 - PHYSICAL DATA FOR MATERIAL

Physical State Gas <input type="checkbox"/> Liquid <input checked="" type="checkbox"/> Solid <input type="checkbox"/>	Odour and Appearance <b>faint pine, amber coloured opaque paste</b>		Odour Threshold (ppm) <b>not applicable</b>	Specific Gravity <b>not applicable</b>
Vapour Pressure (mm) <b>not applicable</b>	Vapour Density (Air=1) <b>not applicable</b>	Evaporation Rate <b>not applicable</b>	Boiling Point (°C) <b>100'</b>	Pour Point(°C) <b>below -22'</b>
Coeffecient of water/oil distribution <b>not applicable</b>	% Volatile (by volume) <b>not applicable</b>	Solubility in Water (20°C) <b>100 %</b>	pH <b>8.8 to 9.4</b>	

## SECTION IV - FIRE AND EXPLOSION HAZARD OF MATERIAL

Flammability YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	If yes, under what conditions:		
Means of Extinction <b>Use extinguishing media appropriate for surrounding fire.</b>			
Special Procedures <b>not applicable</b>			
Flashpoint (°C) and method <b>not applicable</b>	Upper explosion limit (% by volume) <b>not applicable</b>	Lower explosion limit (% by volume) <b>not applicable</b>	

Auto Ignition Temperature(°C) <b>not applicable</b>	TDG Flammability Classification <b>not applicable</b>	Hazardous Combustion Products <b>not applicable</b>	
Explosion Data Sensitivity to Chemical Impact <b>not applicable</b>	Sensitivity to Static Discharge <b>not applicable</b>	Explosive Power <b>not applicable</b>	Rate of Burning <b>not applicable</b>

**SECTION V - REACTIVE DATA**

Chemical Stability If no, under which conditions?

YES  NO

Incompatibility to other substances If so, which ones?

YES  NO

Reactivity and under what conditions  
**not applicable**

Hazardous Decomposition Products  
**not applicable**

**SECTION VI - TOXICOLOGICAL PROPERTIES OF PRODUCT**

Route of Entry

Skin Contact  Skin Absorption  Eye Contact  Inhalation Acute  Inhalation Chronic  Ingestion

Effects of Acute Exposure to Product  
**not applicable**

Effects to Chronic Exposure to Product  
**not applicable**

LD 50 of Product (Specify Species and Route) <b>not applicable</b>	Irritancy of Product <b>not applicable</b>	Exposure limits of Product (ACGIH TLV) <b>not applicable</b>
---	---	---

LC 50 of Product (Specify Species) <b>not applicable</b>	Sensitization to Product <b>not applicable</b>	Synergistic materials <b>not applicable</b>
---	---	--

Carcinogenicity  Reproductive effects  Teratogenicity  Mutagenicity

**SECTION VII - PREVENTIVE MEASURES**

Personal Protective Equipment  
**not applicable**

Gloves (Specify) <b>not applicable</b>	Respirator (Specify) <b>not applicable</b>	Eye (Specify) <b>not applicable</b>	Footware (Specify) <b>not applicable</b>
Clothing (Specify) <b>not applicable</b>		Other (Specify) <b>not applicable</b>	

Engineering Controls (e.g. ventilation, enclosed process, specify)

not applicable

Leaks and Spill Procedure

Spills are slippery and could cause skidding of personel and or equipment. Material can be used if not contaminated with foreign substances

Waste Disposal

Incineration or sanitary landfill in accordance with government regulations.

Handling Procedure and Equipment

not applicable

Storage Requirements

not applicable

Special Shipping Information

**SECTION VI 11 - FIRST AID MEASURES**

Skin

Rinse with water.

Eye

Rinse with water.

Inhalation

not applicable

Ingestion

Drink 2 glasses of water, induce vomiting.

General advise

not applicable

**SECTION IX - PREPARATION OF M.S.D.S.**

Additional Information / Comments

not applicable

Sources Used

Prepared by

**A.J. HOOD**

Phone number

905-453-7007

Date

**JUNE 17, 2013**



## MATERIAL SAFETY DATA SHEET

### SECTION 1. PRODUCT IDENTIFICATION

**MATERIAL NAME:** PVC Pipe and Fittings  
**PRODUCT USE:** Water, sewer, conduit and industrial piping

### SECTION 2. PREPARATION INFORMATION

**MANUFACTURER/SUPPLIER:** IPEX Inc.  
807 Pharmacy Avenue  
Scarborough, Ontario  
Canada  
M1L 3K2

**TELEPHONE NO.:** (416) 445-3400  
**PREPARED BY:** Health, Safety and Environment  
**DATE PREPARED:** March 9<sup>th</sup> 2015

### SECTION 3. HAZARDOUS INGREDIENTS

This is not a "controlled product" under the Hazardous Products Act. PVC is inert in all intended applications.

INGREDIENT NAME	CAS NUMBER	APPROXIMATE CONCENTRATION %	LD <sub>50</sub> /LC <sub>50</sub>	EXPOSURE LIMIT TLV ACGIH mg/m <sup>3</sup>
PVC Resin Blend	Not applicable	100%	Not available	Not available

### SECTION 4. PHYSICAL DATA

**PHYSICAL STATE:** Solid

**ODOUR AND APPEARANCE:** White, blue, green, grey or orange, odourless

**BOILING POINT:** 385°F (196 °C)

**VAPOUR PRESSURE:** Not applicable

**VAPOUR DENSITY:** Not applicable

**SPECIFIC GRAVITY:** 1.4 – 1.65

**pH:** Not applicable

**ODOUR THRESHOLD:** Not applicable

**EVAPORATION RATE:** Not applicable

**COEFFICIENT WATER/OIL DISTR:** Not applicable

MSDS: PVC Pipe and Fittings	Revision Level: # 5	Prepared Date: 2015 03 09	Page 1 of 4
Prepared by: Amy Slattery	Checked by: Stan Rodriguez <i>SS</i>	Approved by: <i>SS</i>	



## SECTION 5. FIRE OR EXPLOSION HAZARD

<b>FIRE FIGHTING:</b>	Wear self-contained breathing apparatus (SCBA) equipped with a full face piece and operated in a pressure-demand mode or other positive-pressure mode and protective clothing. Personnel not having suitable respiratory protection must leave the area to prevent significant exposure to toxic gases from combustion, burning, or decomposition. In an enclosed or poorly ventilated area, wear SCBA during cleanup immediately after a fire as well as during the attack phase of fire fighting operations. Run off water from fire fighting may have corrosive effects.
<b>EXTINGUISHING MEDIA:</b>	Water spray, carbon dioxide, foam, dry chemical.
<b>HAZARDOUS COMBUSTION PRODUCTS:</b>	Hydrogen Chloride, Carbon Dioxide, Carbon Monoxide other substances dependent on fire conditions.
<b>FLASH POINT:</b>	734°F (390°C) approx.
<b>LOWER FLAMMABLE LIMIT:</b>	Not applicable.
<b>UPPER FLAMMABLE LIMIT:</b>	Not applicable.
<b>AUTOIGNITION:</b>	800°F (425°C) (ASTM D-1929) approx.
<b>CONDITIONS OF FLAMMABILITY:</b>	Only if highly heated and exposed to a continuous source of ignition. PVC pipe will not support combustion.
<b>IMPACT SENSITIVITY:</b>	Not available
<b>STATIC DISCHARGE:</b>	Not available

## SECTION 6. REACTIVITY DATA

<b>STABILITY:</b>	Not available.
<b>REACTIVITY:</b>	Not available
<b>INCOMPATIBILITY WITH OTHER SUBSTANCES:</b>	Not available
<b>HAZARDOUS DECOMPOSITION:</b>	See section 5

## SECTION 7. TOXICOLOGICAL PROPERTIES

<b>EFFECTS OF ACUTE EXPOSURE TO PRODUCT:</b>	No acute health effects reported with the inhalation of PVC dust; dust may irritate the eyes.
<b>EFFECTS OF CHRONIC EXPOSURE TO PRODUCT:</b>	Vinyl resin is not known to cause any disease. Dust exposure should always be minimized. Routine inhalation of dust of any kind should be avoided. Exercise care when dumping bags, sweeping, mixing or doing other tasks which can create dust.

MSDS: PVC Pipe and Fittings	Revision Level: # 5	Prepared Date: 2015 03 09	Page 2 of 4
Prepared by: Amy Slattery	Checked by: Stan Rodriguez <i>SS</i>	Approved by: <i>SS</i>	



<b>ROUTES OF ENTRY:</b>	Inhalation, eye contact with dust (only when cutting or grinding)
<b>SENTITIZATION:</b>	None known
<b>IRRITANCY:</b>	Not available
<b>CHRONIC/CARCINOGENICITY:</b>	Not available
<b>REPRODUCTIVE TOXICITY:</b>	Not available
<b>TERATOGENICITY:</b>	Not available
<b>MUTAGENICITY:</b>	Not available
<b>TOXICOLOGICALLY SYNERGISTIC PRODUCTS:</b>	Not available

### SECTION 8. PREVENTIVE MEASURES

<b>PERSONAL PROTECTIVE EQUIPMENT TO BE USED:</b>	When cutting, the use of eye protection and a NIOSH-approved respirator for dust is recommended.
<b>ENGINEERING CONTROLS TO BE USED:</b>	Ventilate adequately when cutting.
<b>WASTE DISPOSAL:</b>	Handle in accordance with federal, state, provincial and municipal regulations.
<b>PROCEDURES TO BE FOLLOWED IN CASE OF LEAK OR SPILL:</b>	Pipe fragments and debris should be swept up and removed to a disposal container.
<b>HANDLING PROCEDURES AND EQUIPMENT:</b>	Avoid creating and breathing PVC dust
<b>STORAGE REQUIREMENTS:</b>	None
<b>SPECIAL SHIPPING INFORMATION:</b>	Not applicable

### SECTION 9. EMERGENCY AND FIRST AID MEASURES

<b>SPECIFIC FIRST AID MEASURES:</b>	No situation is likely to arise from routine handling of PVC pipes.
<b>EYES:</b>	Remove particles with clean water. If irritation persists, consult a physician.
<b>SKIN:</b>	Wash with soap and water
<b>INGESTION:</b>	Do not induce vomiting: consult a physician.
<b>INHALATION:</b>	If irritation persists, consult a physician

MSDS: PVC Pipe and Fittings	Revision Level: # 5	Prepared Date: 2015 03 09	Page 3 of 4
Prepared by: Amy Slattery	Checked by: Stan Rodriguez <i>SS</i>	Approved by: <i>SS</i>	



<b>SECTION 10. ADDITIONAL GENERAL INFORMATION</b>
---

Disclaimer

The information contained in this material safety data sheet is based on information available to IPEX Inc. and is believed to be accurate. Where this information is based on data developed by third parties, IPEX Inc. expressly denies liability. IPEX Inc. makes no warranty, expressed or implied, regarding the accuracy of this information or data or the results obtained from its use. All recommendations are made without guarantee, since the conditions of use of this product are beyond IPEX Inc.'s control. IPEX Inc. assumes no responsibility for any damages resulting from the use of this product described herein.

Please consult IPEX Inc. for further information.

MSDS: PVC Pipe and Fittings	Revision Level: # 5	Prepared Date: 2015 03 09	Page 4 of 4
Prepared by: Amy Slattery	Checked by: Stan Rodriguez <i>SS</i>	Approved by: <i>SS</i>	