CARBON BLACK FEED STOCK

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Revision Date: 09/01/2017 Date of Issue: 05/29/2015 Version:2.0

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Form: Mixture

Product Name: CARBON BLACK FEED STOCK

Chemical Name: Catalytic Cracked Clarified Oil

Formula: Predominately C_{20} and Greater

Synonyms: Clarified Oil

1.2. Intended Use of the Product

Chemical Feed Stock.

1.3. Name, Address, and Telephone of the Responsible Party

Company

United Refining Company
15 Bradley Street, P.O.Box 780
Warren, PA 16365
Phone: (814) 723-1500
www.urc.com

1.4. Emergency Telephone Number

Emergency Number : CHEMTREC: (800) 424-9300

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

GHS-US/CA Classification

Flam. Liq. 4	H227
Acute Tox. 4 (Inhalation:dust,mist)	H332
Carc. 1B	H350
Repr. 2	H361
STOT RE 2	H373
Aquatic Acute 1	H400
Aquatic Chronic 1	H410

Full text of hazard classes and H-statements : see Section 16.

2.2. Label Elements

GHS-US/CA Labeling

Hazard Pictograms (GHS-US/CA) :

GHS07 GHS08 GHS09

Signal Word (GHS-US/CA) : Danger

Hazard Statements (GHS-US/CA) : H227 - Combustible liquid.
H332 - Harmful if inhaled.
H350 - May cause cancer.
H361 - Suspected of damaging fertility or the unborn child.
H373 - May cause damage to organs (blood, thymus, liver) through prolonged or repeated exposure.
H400 - Very toxic to aquatic life.
H410 - Very toxic to aquatic life with long lasting effects.

Precautionary Statements (GHS-US/CA) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P260 - Do not breathe vapors, mist, spray, gas.
P271 - Use only outdoors or in a well-ventilated area.
P273 - Avoid release to the environment.
P280 - Wear protective gloves, protective clothing, and eye protection.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P312 - Call a POISON CENTER or doctor if you feel unwell.
P314 - Get medical advice/attention if you feel unwell.
P370+P378 - In case of fire: Use appropriate media (see Section 5) to extinguish.
P391 - Collect spillage.
P403 - Store in a well-ventilated place.
P405 - Store locked up.
P501 - Dispose of contents/container in accordance with local, regional, national, provincial, territorial and international regulations.

2.3. Other Hazards

Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions. May contain benzene, a regulated human carcinogen. Benzene has the potential to cause anemia and other blood diseases, including leukemia, after repeated and prolonged exposure. Exposure to light hydrocarbons in the same boiling range as this product has been associated in animal studies with systemic toxicity. See also Section 11 – Toxicological Information. If stored under heat for extended periods or significantly agitated, this material might evolve or release hydrogen sulfide, a flammable gas, which can raise and widen this material's actual flammability limits and significantly lower its auto-ignition temperature. Hydrogen sulfide is a toxic gas that can be fatal. It also has a rotten egg smell that causes odor fatigue very quickly and should not be used as an indicator for the presence of gas.

2.4. Unknown Acute Toxicity (GHS-US/CA)

No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixture

Name	Product Identifier	% *	GHS Ingredient Classification
Clarified oils, petroleum, catalytic cracked	(CAS No) 64741-62-4	> 91	Flam. Liq. 4, H227 Acute Tox. 4 (Inhalation:dust,mist), H332 Carc. 1B, H350 Repr. 2, H361 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Aromatic hydrocarbons, C_{12-20}	(CAS No) 70955-17-8	5	Acute Tox. 4 (Inhalation:vapor), H332 Carc. 1B, H350 Repr. 2, H361 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Sulfur	(CAS No) 7704-34-9	4	Skin Irrit. 2, H315 Aquatic Acute 3, H402 Comb. Dust
Hydrogen sulfide	(CAS No) 7783-06-4	< 0.1	Flam. Gas 1, H220 Press. Gas (Liq.), H280 Acute Tox. 2 (Inhalation:gas), H330 Eye Irrit. 2A, H319 STOT SE 3, H335 Aquatic Acute 1, H400

Full text of H-phrases: see Section 16.

*Percentages are listed in weight by weight percentage (w/w%) for liquid and solid ingredients. Gas ingredients are listed in volume by volume percentage (v/v%).

SECTION 4: FIRST AID MEASURES

4.1. Description of First-aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). IF exposed or concerned: Get medical advice/attention.

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor/physician if you feel unwell.

Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion: Rinse mouth. Do NOT induce vomiting. If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

General: Harmful if inhaled. May cause cancer. Suspected of damaging fertility. Suspected of damaging the unborn child. May cause damage to organs through prolonged or repeated exposure. Risk of thermal burns on contact with molten product.

Inhalation: Harmful if inhaled. High concentration of vapors may induce: headache, dizziness, drowsiness, nausea and vomiting. Toxic fumes may be generated from heating asphalt and may be harmful if inhaled.

Skin Contact: May cause skin irritation. Risk of thermal burns on contact with molten product. Where possible allow molten material to solidify naturally. Removal of solidified molten material from skin requires medical assistance.

Eye Contact: May cause eye irritation. Risk of thermal burns on contact with molten product.

Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: May cause cancer. Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: Do not use water. Use of water on product above 100 °C (212 °F) can cause product to expand with explosive force.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Combustible liquid.

Explosion Hazard: Product is not explosive. May be explosive in contact with flammable or organic substances and confinement during fire.

Reactivity: Hazardous reactions will not occur under normal conditions. In molten form may react violently with water.

5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire. Under fire conditions, hazardous fumes will be present.

Firefighting Instructions: Use water spray or fog for cooling exposed containers. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon dioxide, carbon monoxide, smoke, fumes, unburned hydrocarbons and oxides of sulfur and/or nitrogen. Hydrogen sulfide and other sulfur-containing gases can evolve from this product at elevated temperatures.

Other Information: Do not allow run-off from fire fighting to enter drains or water courses.

Reference to Other Sections

Refer to Section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Use special care to avoid static electric charges. Keep away from heat, sparks, open flames, hot surfaces. – No smoking. Use only outdoors or in a well-ventilated area. Do not allow product to spread into the environment.

6.1.1. For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

6.1.2. For Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE).

Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

6.2. Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

6.3. Methods and Materials for Containment and Cleaning Up

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. As an immediate precautionary measure, isolate spill or leak area in all directions.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Collect spillage. Absorb and/or contain spill with inert material, then place in suitable container. Do not take up in combustible material such as: saw dust or cellulosic material. Contact competent authorities after a spill.

6.4. Reference to Other Sections

See Section 8, Exposure Controls and Personal Protection. For further information refer to Section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Additional Hazards When Processed: Handle empty containers with care because residual vapors are flammable. When heated to decomposition, emits toxic fumes. If stored under heat for extended periods or significantly agitated, this material might evolve or release hydrogen sulfide, a flammable gas, which can raise and widen this material's actual flammability limits and significantly lower its auto-ignition temperature. Hydrogen sulfide is a toxic gas that can be fatal. It also has a rotten egg smell that causes odor fatigue very quickly and should not be used as an indicator for the presence of gas. Risk of thermal burns on contact with molten product. Combustible material: may burn but does not ignite readily.

Precautions for Safe Handling: Use only outdoors or in a well-ventilated area. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Take precautionary measures against static discharge. Use only non-sparking tools. Keep away from heat, sparks, open flames, hot surfaces. – No smoking. Do not breathe vapors, mist, spray, gas.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Wash hands and forearms thoroughly after handling. Do not eat, drink or smoke when using this product.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating, and lighting equipment.

Storage Conditions: Keep/Store away from ignition sources and incompatible materials. Store in a well-ventilated place. Keep container tightly closed.

Incompatible Materials: Strong acids, strong bases. strong oxidizers. When molten: water.

7.3. Specific End Use(s)

Chemical Feed Stock.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

For substances listed in Section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

Sulfur (7704-34-9)		
Alberta	OEL TWA (mg/m³)	10 mg/m³

Hydrogen sulfide (7783-06-4)		
Mexico	OEL TWA (mg/m³)	14 mg/m³
Mexico	OEL TWA (ppm)	10 ppm
Mexico	OEL STEL (mg/m³)	21 mg/m³
Mexico	OEL STEL (ppm)	15 ppm
USA ACGIH	ACGIH TWA (ppm)	1 ppm

USA ACGIH	ACGIH STEL (ppm)	5 ppm
USA OSHA	OSHA PEL (Ceiling) (ppm)	20 ppm
USA OSHA	Acceptable Maximum Peak Above The Acceptable Ceiling Concentration For An 8-Hr Shift	50 ppm Peak (10 minutes once, only if no other measurable exposure occurs)
USA NIOSH	NIOSH REL (ceiling) (mg/m³)	15 mg/m³
USA NIOSH	NIOSH REL (ceiling) (ppm)	10 ppm
USA IDLH	US IDLH (ppm)	100 ppm
Alberta	OEL Ceiling (mg/m³)	21 mg/m³
Alberta	OEL Ceiling (ppm)	15 ppm
Alberta	OEL TWA (mg/m³)	14 mg/m³
Alberta	OEL TWA (ppm)	10 ppm
British Columbia	OEL Ceiling (ppm)	10 ppm
Manitoba	OEL STEL (ppm)	5 ppm
Manitoba	OEL TWA (ppm)	1 ppm
New Brunswick	OEL STEL (mg/m³)	21 mg/m³
New Brunswick	OEL STEL (ppm)	15 ppm
New Brunswick	OEL TWA (mg/m³)	14 mg/m³
New Brunswick	OEL TWA (ppm)	10 ppm
Newfoundland & Labrador	OEL STEL (ppm)	5 ppm
Newfoundland & Labrador	OEL TWA (ppm)	1 ppm
Nova Scotia	OEL STEL (ppm)	5 ppm
Nova Scotia	OEL TWA (ppm)	1 ppm
Nunavut	OEL STEL (ppm)	15 ppm
Nunavut	OEL TWA (ppm)	10 ppm
Northwest Territories	OEL STEL (ppm)	15 ppm
Northwest Territories	OEL TWA (ppm)	10 ppm
Ontario	OEL STEL (ppm)	15 ppm
Ontario	OEL TWA (ppm)	10 ppm
Prince Edward Island	OEL STEL (ppm)	5 ppm
Prince Edward Island	OEL TWA (ppm)	1 ppm
Québec	VECD (mg/m³)	21 mg/m³
Québec	VECD (ppm)	15 ppm
Québec	VEMP (mg/m³)	14 mg/m³
Québec	VEMP (ppm)	10 ppm
Saskatchewan	OEL STEL (ppm)	15 ppm
Saskatchewan	OEL TWA (ppm)	10 ppm
Yukon	OEL STEL (mg/m³)	27 mg/m³
Yukon	OEL STEL (ppm)	15 ppm
Yukon	OEL TWA (mg/m³)	15 mg/m³
Yukon	OEL TWA (ppm)	10 ppm

8.2. Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment. Ensure all national/local regulations are observed. Ensure adequate ventilation, especially in confined areas. Gas detectors should be used when flammable gases/vapors may be released. Gas detectors should be used when toxic gases may be released.

Personal Protective Equipment: Protective clothing. Protective goggles. Insufficient ventilation: wear respiratory protection. Gloves. Face shield.

Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear chemically resistant protective gloves.

Eye and Face Protection: Chemical goggles. Face shield.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: Use NIOSH-approved air-purifying or supplied-air respirator where airborne concentrations of vapor or mist are expected to exceed exposure limits.

Thermal Hazard Protection: If material is hot, wear thermally resistant protective gloves. Protect skin and eyes from contact with molten material.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State	:	Liquid
Appearance	:	Brown Liquid
Odor	:	Aromatic Odor
Odor Threshold	:	Not available
pH	:	Not available
Evaporation Rate	:	Not available
Melting Point	:	Not available
Freezing Point	:	Not available
Boiling Point	:	370 °C (698 °F)
Flash Point	:	(88 - 125) °C (190.4 - 257) °F (PMCC D93)
Auto-ignition Temperature	:	Not available
Decomposition Temperature	:	Not available
Flammability (solid, gas)	:	Not available
Lower Flammable Limit	:	Not available
Upper Flammable Limit	:	Not available
Vapor Pressure	:	Nil
Relative Vapor Density at 20°C	:	Not available
Relative Density	:	Not available
Specific Gravity	:	1.1
Solubility	:	Water: < 0.1%
Partition Coefficient: N-Octanol/Water	:	Not available
Viscosity	:	20 – 400 SFS @ 50° C (122 °F)

SECTION 10: STABILITY AND REACTIVITY

10.1. **Reactivity:** Hazardous reactions will not occur under normal conditions. In molten form may react violently with water.

10.2. **Chemical Stability:** Stable under recommended handling and storage conditions (see Section 7).

10.3. **Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.

10.4. **Conditions to Avoid:** Heat, hot surfaces, sparks, open flames, and other ignition sources, incompatible materials.

10.5. **Incompatible Materials:** Strong acids, strong bases, strong oxidizers. When molten: water.

10.6. **Hazardous Decomposition Products:** None expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects - Product

Acute Toxicity (Oral): Not classified

Acute Toxicity (Dermal): Not classified

Acute Toxicity (Inhalation): Inhalation:dust,mist: Harmful if inhaled.

LD50 and LC50 Data:

CARBON BLACK FEED STOCK	
ATE US/CA (dust, mist)	4.51 mg/l/4h

Skin Corrosion/Irritation: Not classified

Eye Damage/Irritation: Not classified

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Carcinogenicity: May cause cancer.

Specific Target Organ Toxicity (Repeated Exposure): May cause damage to organs (blood, thymus, liver) through prolonged or repeated exposure.

Reproductive Toxicity: Suspected of damaging fertility or the unborn child.

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: Harmful if inhaled. High concentration of vapors may induce: headache, dizziness, drowsiness, nausea and vomiting. Toxic fumes may be generated from heating asphalt and may be harmful if inhaled.

Symptoms/Injuries After Skin Contact: May cause skin irritation. Risk of thermal burns on contact with molten product. Where possible allow molten material to solidify naturally. Removal of solidified molten material from skin requires medical assistance.

Symptoms/Injuries After Eye Contact: May cause eye irritation. Risk of thermal burns on contact with molten product.

Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: May cause cancer. Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure.

11.2. Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Clarified oils, petroleum, catalytic cracked (64741-62-4)	
LD50 Oral Rat	4320 - 5270 mg/kg
LD50 Dermal Rabbit	> 2000 mg/kg
LC50 Inhalation Rat	> 3700 mg/m³ (Exposure time: 4 h)
LC50 Inhalation Rat	4.1 mg/l/4h

Aromatic hydrocarbons, C_{12-20} (70955-17-8)	
LD50 Oral Rat	> 5000 mg/kg Sprague-Dawley rats (5/sex) were administered four samples of CASRN 64741-81-7 separately (residues (petroleum), heavy vacuum—F-97-01, Visbreaker HGO, Vis gas oil VIBRA, and VB Mittelol) via gavage at 5000 mg/kg and were observed for 14 days after dosing. No mortalities were observed. LD50 > 5000 mg/kg
ATE US/CA (vapors)	11.00 mg/l/4h

Sulfur (7704-34-9)	
LD50 Oral Rat	> 3000 mg/kg
LD50 Dermal Rabbit	> 2000 mg/kg
LC50 Inhalation Rat	> 9.23 mg/l/4h

Hydrogen sulfide (7783-06-4)	
LC50 Inhalation Rat	444 ppm/4h

Aromatic hydrocarbons, C_{12-20} (70955-17-8)	
LOAEL (dermal,rat/rabbit,90 days)	30 mg/kg bodyweight/day

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - General: Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

Sulfur (7704-34-9)

LC50 Fish 1	866 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static])
EC50 Daphnia 1	736 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 Fish 2	14 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])

Hydrogen sulfide (7783-06-4)	
LC50 Fish 1	0.0448 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through])
LC50 Fish 2	0.016 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])

12.2. Persistence and Degradability

CARBON BLACK FEED STOCK	
Persistence and Degradability	Not established. May cause long-term adverse effects in the environment.

12.3. Bioaccumulative Potential

CARBON BLACK FEED STOCK	
Bioaccumulative Potential	Not established.

Hydrogen sulfide (7783-06-4)	
BCF Fish 1	(no bioaccumulation expected)
Log Pow	0.45 (at 25 °C)

12.4. Mobility in Soil

Not available

12.5. Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Sewage Disposal Recommendations: Do not empty into drains. Do not dispose of waste into sewer.

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

14.1. In Accordance with DOT

Proper Shipping Name : ELEVATED TEMPERATURE LIQUID, N.O.S., (Carbon Black Feed Stock)

Hazard Class : 9

Identification Number : UN3257

Label Codes : 9

Packing Group : III

Marine Pollutant : Marine pollutant

ERG Number : 130

14.2. In Accordance with IMDG

Proper Shipping Name : ELEVATED TEMPERATURE LIQUID, N.O.S., (Carbon Black Feed Stock)

Hazard Class : 9

Identification Number : UN3257

Label Codes : 9

Packing Group : III

EmS-No. (Fire) : F-A

EmS-No. (Spillage) : S-P

Marine pollutant : Marine pollutant

14.3. In Accordance with IATA

Proper Shipping Name : ELEVATED TEMPERATURE LIQUID, N.O.S., (Carbon Black Feed Stock)

Identification Number : 9

Hazard Class : UN3257

Label Codes : 9

Packing Group : III
ERG Code (IATA) : 9L

14.4. In Accordance with TDG

Proper Shipping Name : ELEVATED TEMPERATURE LIQUID, N.O.S., (Carbon Black Feed Stock)
Hazard Class : 9
Identification Number : UN3257
Label Codes : 9

Packing Group : III
Marine Pollutant (TDG) : Marine pollutant

SECTION 15: REGULATORY INFORMATION

15.1. US Federal Regulations

CARBON BLACK FEED STOCK	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard Fire hazard

Clarified oils, petroleum, catalytic cracked (64741-62-4)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Aromatic hydrocarbons, C_{12-20} (70955-17-8)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Sulfur (7704-34-9)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Hydrogen sulfide (7783-06-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on the United States SARA Section 302 Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	100 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	500 lb
SARA Section 313 - Emission Reporting	1 %

15.2. US State Regulations

Sulfur (7704-34-9)
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

Hydrogen sulfide (7783-06-4)
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List U.S. - Pennsylvania - RTK (Right to Know) List

15.3. Canadian Regulations

Clarified oils, petroleum, catalytic cracked (64741-62-4)
Listed on the Canadian DSL (Domestic Substances List)

Aromatic hydrocarbons, C_{12-20} (70955-17-8)
Listed on the Canadian DSL (Domestic Substances List)

Sulfur (7704-34-9)
Listed on the Canadian DSL (Domestic Substances List)

Hydrogen sulfide (7783-06-4)
Listed on the Canadian DSL (Domestic Substances List)

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Date of Preparation or Latest Revision : 09/01/2017

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Hazardous Products Regulations (HPR) SOR/2015-17.

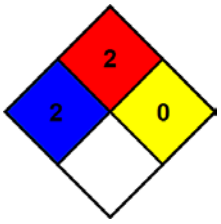
GHS Full Text Phrases:

Acute Tox. 2 (Inhalation:gas)	Acute toxicity (inhalation:gas) Category 2
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Inhalation:vapor)	Acute toxicity (inhalation:vapor) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Asp. Tox. 1	Aspiration hazard Category 1
Carc. 1B	Carcinogenicity Category 1B
Comb. Dust	Combustible Dust
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Gas 1	Flammable gases Category 1
Flam. Liq. 4	Flammable liquids Category 4
Press. Gas (Liq.)	Gases under pressure Liquefied gas
Repr. 2	Reproductive toxicity Category 2
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H220	Extremely flammable gas
H227	Combustible liquid
H280	Contains gas under pressure; may explode if heated
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H319	Causes serious eye irritation
H330	Fatal if inhaled
H332	Harmful if inhaled
H335	May cause respiratory irritation
H350	May cause cancer
H361	Suspected of damaging fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H402	Harmful to aquatic life
H410	Very toxic to aquatic life with long lasting effects

NFPA Health Hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA Fire Hazard : 2 - Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur.

NFPA Reactivity Hazard : 0 - Material that in themselves are normally stable, even under fire conditions.



This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

NA GHS SDS 2015 (Can, US, Mex)