SAFETY DATA SHEET

Gas Oil - High Flashpoint

Section 1. Identification

Product name : Gas Oil - High Flashpoint

Product code : Not available.

Synonyms : Atmospheric Gas Oil (AGO), Cat Charge, Deasphalted Oil (DAO), Deasphalted Oil (PDA Overhead), FCC Charge (Sweet Gas oil), FCC Combined Feed, FCC Feed, Fuel Oil (Heavy Ends), GHC Charge (Sour Gas oil), HCGO - Heavy Coker Gas Oil, Heavy Atmospheric Gas Oil, Heavy Vacuum Gas Oil (HVGO), LEF, LEU Rafinate, Light Vacuum Gas Oil (LVGO), Medium Vacuum Gas Oil (MVGO), Refinery Heavy Slop, Vacuum Gas Oil (VGO), W-150 (lube base oil), W-450 (lube base oil), W-650 (lube base oil), W-70 (lube base oil), W-850 (lube base oil)

Relevant identified uses of the substance or mixture and uses advised against

Product use : Industrial: Intermediate.

Area of application : Industrial applications.

Manufacturer : *HF Sinclair*
2828 North Harwood
Suite 1300
Dallas, Texas 75201
USA
Customer Service:
(214) 954-6720

Emergency telephone number : CHEMTREC® (800) 424-9300
CCN 201319

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture :

H332	ACUTE TOXICITY (inhalation) - Category 4
H315	SKIN IRRITATION - Category 2
H350	CARCINOGENICITY - Category 1B
H361	TOXIC TO REPRODUCTION (Unborn child) - Category 2
H373	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (blood system, bone marrow, liver, spleen, thymus) (dermal) - Category 2
H304	ASPIRATION HAZARD - Category 1

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : H332 - Harmful if inhaled.
H315 - Causes skin irritation.
H350 - May cause cancer.
H361 - Suspected of damaging the unborn child.
H304 - May be fatal if swallowed and enters airways.
H373 - May cause damage to organs through prolonged or repeated exposure in contact with skin. (blood system, bone marrow, liver, spleen, thymus)

Precautionary statements

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Wash hands thoroughly after handling.

Response : Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical attention.

Storage : Not applicable.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements : Heated material can cause thermal burns.

Hazards not otherwise classified : May release hydrogen sulfide a poisonous gas that can accumulate in confined spaces.

Section 3. Composition/information on ingredients

Substance/mixture : Multi-constituent substance

CAS number/other identifiers

CAS number : Not available.

Ingredient name	Other names	%	CAS number
Distillates (petroleum), straight-run middle	-	0 - 100	64741-44-2
Clarified oils (petroleum), catalytic cracked	-	0 - 100	64741-62-4
Gas oils (petroleum), heavy vacuum	-	0 - 100	64741-57-7
Gas oils (petroleum), light vacuum	-	0 - 100	64741-58-8
hydrogen sulfide	-	0.0001	7783-06-4

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention. Continue to rinse for at least 15 minutes.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 15 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Gas Oil - High Flashpoint HF Sinclair

Ingestion : Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Slightly irritating to the eyes. Possible tearing, burning sensation and redness.

Inhalation : Harmful if inhaled. Mist/high concentrations: Inhalation may cause irritation to the nose, throat, upper respiratory tract and lungs.

Skin contact : Causes skin irritation.

Ingestion : May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

Eye contact : pain or irritation; watering; redness

Inhalation : respiratory tract irritation; coughing

Skin contact : irritation; redness; dryness; cracking

Ingestion : nausea or vomiting

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of medical responders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst. May release hydrogen sulfide a poisonous gas that can accumulate in confined spaces.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

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

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. May release hydrogen sulfide a poisonous gas that can accumulate in confined spaces.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

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

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

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

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. High pressure skin injections are serious medical emergencies. Injury will not appear serious at first. Within a few hours, tissue will become swollen, discolored and extremely painful. May release hydrogen sulfide a poisonous gas that can accumulate in confined spaces.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Distillates (petroleum), straight-run middle	**ACGIH TLV (United States, 4/2014). Absorbed through skin.** TWA: 200 mg/m³, (total hydrocarbon vapor) 8 hours.
Clarified oils (petroleum), catalytic cracked	**NIOSH REL (United States, 10/2013).** STEL: 10 mg/m³ 15 minutes. Form: Mist TWA: 5 mg/m³ 10 hours. Form: Mist
Gas oils (petroleum), heavy vacuum	**NIOSH REL (United States, 10/2016).** TWA: 5 mg/m³ 10 hours. Form: Mist STEL: 10 mg/m³ 15 minutes. Form: Mist
Gas oils (petroleum), light vacuum	None.
hydrogen sulfide	**ACGIH TLV (United States, 3/2018).** TWA: 1 ppm 8 hours. STEL: 5 ppm 15 minutes. **OSHA PEL Z2 (United States, 2/2013).** CEIL: 20 ppm AMP: 50 ppm 10 minutes. **NIOSH REL (United States, 10/2016).** CEIL: 10 ppm 10 minutes. CEIL: 15 mg/m³ 10 minutes.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. May release hydrogen sulfide a poisonous gas that can accumulate in confined spaces.

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

Individual protection measures

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

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection : 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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid. [Viscous]

Color : Black./Dark brown.

Odor : Asphalt

Odor threshold : Not available.

pH : Not applicable.

Melting point : Not available.

Boiling point : 86 to 311°C (186 to 591°F)

Flash point : Closed cup: ≥93°C (≥200°F)

Evaporation rate : Not available.

Flammability (solid, gas) : Not applicable.

Lower and upper explosive (flammable) limits : Not applicable.

Vapor pressure : Not available.

Vapor density : Not available.

Specific gravity : 0.86 to 0.94

Density : Not available.

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

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not applicable.

Decomposition temperature : Not available.

Viscosity : Kinematic (40°C (104°F)): 0.029 to 0.979 cm^2/s (2.9 to 97.9 cSt)

Flow time (ISO 2431) : Not available.

Molecular weight : Not applicable.

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

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

Conditions to avoid : No specific data.

Incompatible materials : No specific data.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Gas oils (petroleum), heavy vacuum	LC50 Inhalation Dusts and mists	Rat	4 mg/l	4 hours
	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
Gas oils (petroleum), light vacuum	LC50 Inhalation Dusts and mists	Rat	≥4.1 mg/l	4 hours
	LD50 Dermal	Rabbit	>4300 mg/kg	-
	LD50 Oral	Rat	>7600 mg/kg	-
Clarified oils (petroleum), catalytic cracked	LC50 Inhalation Dusts and mists	Rat	4 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
Distillates (petroleum), straight-run middle	LC50 Inhalation Dusts and mists	Rat	1.78 mg/l	4 hours
	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-

Conclusion/Summary : Based on CONCAWE assessment of straight-run gas oils.
Based on CONCAWE assessment of heavy fuel oil components.
Based on CONCAWE assessment of vacuum gas oils, hydrocracked gas oils, and distillate fuels.

Irritation/Corrosion

Not available.

Conclusion/Summary

Skin : Based on CONCAWE assessment of straight-run gas oils. Non-irritating to the skin.
Based on CONCAWE assessment of heavy fuel oil components. Slight irritant.
Based on CONCAWE assessment of vacuum gas oils, hydrocracked gas oils, and distillate fuels. Irritating to skin.

Eyes : Based on CONCAWE assessment of straight-run gas oils. Non-irritating to the eyes.
Based on CONCAWE assessment of heavy fuel oil components. May cause slight transient irritation.
Based on CONCAWE assessment of vacuum gas oils, hydrocracked gas oils, and distillate fuels. Non-irritating to the eyes.

Sensitization

Conclusion/Summary

Skin : Based on CONCAWE assessment of straight-run gas oils. Not sensitizing.
Based on CONCAWE assessment of heavy fuel oil components. Not sensitizing.
Based on CONCAWE assessment of vacuum gas oils, hydrocracked gas oils, and distillate fuels. Not sensitizing.

Respiratory : No data available.

Mutagenicity

Conclusion/Summary : Based on CONCAWE assessment of straight-run gas oils. No mutagenic effect.
Based on CONCAWE assessment of heavy fuel oil components. No mutagenic effect.
Based on CONCAWE assessment of vacuum gas oils, hydrocracked gas oils, and distillate fuels. No mutagenic effect.

Carcinogenicity

Conclusion/Summary : Based on CONCAWE assessment of straight-run gas oils. Weak carcinogenic potential.
Based on CONCAWE assessment of heavy fuel oil components. Carcinogenic.
Based on CONCAWE assessment of vacuum gas oils, hydrocracked gas oils, and distillate fuels. Suspected of causing cancer.

Reproductive toxicity

Conclusion/Summary : Based on CONCAWE assessment of straight-run gas oils. Not considered to be toxic to the reproductive system.
Based on CONCAWE assessment of heavy fuel oil components. Not considered to be toxic to the reproductive system.
Based on CONCAWE assessment of vacuum gas oils, hydrocracked gas oils, and distillate fuels. Not considered to be toxic to the reproductive system.

Teratogenicity

Conclusion/Summary : Based on CONCAWE assessment of straight-run gas oils. No teratogenic effect.
Based on CONCAWE assessment of heavy fuel oil components. Developmental effects.
Based on CONCAWE assessment of vacuum gas oils, hydrocracked gas oils, and distillate fuels. No teratogenic effect.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
hydrogen sulfide	Category 3 Category 3	Not applicable. Not applicable.	Narcotic effects Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Gas Oil - High Flashpoint	Category 2	Skin	blood system, bone marrow, liver, spleen and thymus
Distillates (petroleum), straight-run middle	Category 2	Skin	bone marrow, liver and spleen
Clarified oils (petroleum), catalytic cracked	Category 2	Skin	blood system, liver and thymus
Gas oils (petroleum), heavy vacuum	Category 2	Skin	blood system, liver and thymus
Gas oils (petroleum), light vacuum	Category 2	Skin	bone marrow, liver and thymus

Aspiration hazard

Name	Result
Gas Oil - High Flashpoint	ASPIRATION HAZARD - Category 1
Distillates (petroleum), straight-run middle	ASPIRATION HAZARD - Category 1
Clarified oils (petroleum), catalytic cracked	ASPIRATION HAZARD - Category 1
Gas oils (petroleum), heavy vacuum	ASPIRATION HAZARD - Category 1
Gas oils (petroleum), light vacuum	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Routes of entry anticipated: Oral, Dermal, Inhalation.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Based on CONCAWE assessment of straight-run gas oils.
Based on CONCAWE assessment of heavy fuel oil components.
Based on CONCAWE assessment of vacuum gas oils, hydrocracked gas oils, and distillate fuels.

General : May cause damage to organs through prolonged or repeated exposure in contact with skin.

Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : Suspected of damaging the unborn child.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Inhalation (dusts and mists)	2.31 mg/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Clarified oils (petroleum), catalytic cracked	Acute EC50 <1 mg/l	Algae	72 hours
	Chronic NOEL 0.1 mg/l	Daphnia	21 days
Gas oils (petroleum), heavy vacuum	Acute EC50 <1 mg/l	Algae	72 hours
	Chronic NOEL 0.1 mg/l	Daphnia	21 days
Gas oils (petroleum), light vacuum	Acute EC50 2 to 100 mg/l	Algae	72 hours
	Acute EC50 2 to 100 mg/l	Daphnia	48 hours
	Acute LC50 2 to 100 mg/l	Fish	96 hours
hydrogen sulfide	Acute EC50 62 µg/l Fresh water	Crustaceans - Gammarus pseudolimnaeus	2 days
	Acute LC50 2 µg/l Fresh water	Fish - Coregonus clupeaformis - Yolk-sac fry	96 hours

Conclusion/Summary : Based on CONCAWE assessment of vacuum gas oils, hydrocracked gas oils, and distillate fuels.
Based on CONCAWE assessment of heavy fuel oil components.
Based on CONCAWE assessment of straight-run gas oils. Read across information from vacuum gas oils, hydrocracked oils and distillate fuels.

Persistence and degradability

Conclusion/Summary : Based on CONCAWE assessment of straight-run gas oils.
Based on CONCAWE assessment of heavy fuel oil components.
Based on CONCAWE assessment of vacuum gas oils, hydrocracked gas oils, and distillate fuels.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Distillates (petroleum), straight-run middle	-	-	Inherent
Clarified oils (petroleum), catalytic cracked	-	-	Inherent
Gas oils (petroleum), heavy vacuum	-	-	Inherent
Gas oils (petroleum), light vacuum	-	-	Inherent

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Distillates (petroleum), straight-run middle	≥4	-	high
Clarified oils (petroleum), catalytic cracked	4 to 6	-	high
Gas oils (petroleum), heavy vacuum	4 to 6	-	high
Gas oils (petroleum), light vacuum	>4	-	high

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	Not regulated.	UN3082	UN3082
UN proper shipping name	-	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Distillates (petroleum), straight-run middle, Gas oils (petroleum), light vacuum)	Environmentally hazardous substance, liquid, n.o.s. (Distillates (petroleum), straight-run middle, Gas oils (petroleum), light vacuum)

Transport hazard class(es)	-	9 	9 
Packing group	-	III	III
Environmental hazards	No.	Yes.	Yes.

Additional information

IMDG : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.
Emergency schedules F-A, S-F
Special provisions 274, 335, 969

IATA : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.
Quantity limitation Passenger and Cargo Aircraft: 450 L. Packaging instructions: 964. Cargo Aircraft Only: 450 L. Packaging instructions: 964. Limited Quantities - Passenger Aircraft: 30 kg. Packaging instructions: Y964.
Special provisions A97, A158, A197

Special precautions for user : When shipped above 212°F (100°C), this product is classified for road transport as:
UN number: UN3257
Proper shipping name: ELEVATED TEMPERATURE LIQUID, N.O.S. (Gas oil)
Hazard Class: 9
Packing group: III

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

U.S. Federal regulations : **United States inventory (TSCA 8b)**: All components are listed or exempted.
Clean Water Act (CWA) 311: hydrogen sulfide

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Listed

SARA 302/304

Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ (lbs)	SARA 302 TPQ (gallons)	SARA 304 RQ (lbs)	SARA 304 RQ (gallons)
hydrogen sulfide	0.0001	Yes.	500	-	100	-

SARA 304 RQ : 100000000 lbs / 45400000 kg [13326012.4 gal / 50444444.4 L]

SARA 311/312

Classification : ACUTE TOXICITY (inhalation) - Category 4
SKIN IRRITATION - Category 2
CARCINOGENICITY - Category 1B
TOXIC TO REPRODUCTION (Unborn child) - Category 2
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (blood system, bone marrow, liver, spleen, thymus) (dermal) - Category 2
ASPIRATION HAZARD - Category 1

Composition/information on ingredients

Name	%	Classification
Distillates (petroleum), straight-run middle	0 - 100	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (inhalation) - Category 4 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (bone marrow, liver, spleen) (dermal) - Category 2 ASPIRATION HAZARD - Category 1 HNOC - Defatting irritant
Clarified oils (petroleum), catalytic cracked	0 - 100	ACUTE TOXICITY (inhalation) - Category 4 CARCINOGENICITY - Category 1B TOXIC TO REPRODUCTION (Unborn child) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (blood system, liver, thymus) (dermal) - Category 2 ASPIRATION HAZARD - Category 1 HNOC - Defatting irritant
Gas oils (petroleum), heavy vacuum	0 - 100	ACUTE TOXICITY (inhalation) - Category 4 CARCINOGENICITY - Category 1B TOXIC TO REPRODUCTION (Unborn child) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (blood system, liver, thymus) (dermal) - Category 2 ASPIRATION HAZARD - Category 1 HNOC - Defatting irritant
Gas oils (petroleum), light vacuum	0 - 100	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (bone marrow, liver, thymus) (dermal) - Category 2 ASPIRATION HAZARD - Category 1
hydrogen sulfide	0.0001	FLAMMABLE GASES - Category 1 GASES UNDER PRESSURE - Compressed gas ACUTE TOXICITY (inhalation) - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

SARA 313

Not applicable.

State regulations

Massachusetts : The following components are listed: OIL MIST, MINERAL

New York : None of the components are listed.

New Jersey : The following components are listed: MINERAL OIL (UNTREATED and MILDLY TREATED)

Pennsylvania : None of the components are listed.

California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Section 16. Other information

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

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Procedure used to derive the classification

Classification	Justification
Acute Tox. 4, H332	Calculation method
Skin Irrit. 2, H315	Calculation method
Carc. 1B, H350	Calculation method
Repr. 2, H361 (Unborn child)	Calculation method
STOT RE 2, H373 (blood system, bone marrow, liver, spleen, thymus) (dermal)	Expert judgment
Asp. Tox. 1, H304	Expert judgment

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Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
UN = United Nations

Indicates information that has changed from previously issued version.

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