

Signature® Process Oil 223

Safety Data Sheet



SECTION 1 IDENTIFICATION

Product Name: Signature® Process Oil 223

Distributor Information:

Parman Energy Corporation
7101 Cockrill Bend Blvd
Nashville, TN 37209
(800) 727-7920

Product Use: Process Oil

Emergency Phone Number:

PERS (800) 633-8253

SECTION 2 HAZARD(S) IDENTIFICATION

Classification: H304 – Aspiration Hazard – Category 1

Other Hazards: None known

Prevention: No GHS prevention statements

Storage: No GHS storage statements

Response: No GHS response statements

Disposal: No GHS disposal statements

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

| Components | CAS Number | Amount |
|--|--------------|--------------|
| Distillates (petroleum), hydrotreated heavy paraffinic | 0064742-54-7 | 100 % weight |

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

SECTION 4 FIRST-AID MEASURES

First-aid measures general: In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

Inhalation: Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

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Skin: Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

Eye Contact: Immediately flush the eyes with large amounts of water for at least 15 minutes, alternately lifting the upper and lower eyelids. After 5 minutes, if appropriate, remove contact lenses and continue flushing the eyes for an additional 15 minutes. Call a physician at once.

Ingestion: If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

Immediate Symptoms and Effects Overview:

Most important symptoms and effects, both acute and delayed:

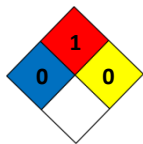
Inhalation of oil mists or vapors generated at elevated temperatures may cause respiratory irritation. Accidental ingestion can result in minor irritation of the digestive tract, nausea and diarrhea.

Notes to Physician: Acute aspirations of large amounts of oil-laden material may produce a serious aspiration pneumonia.

Patients who aspirate these oils should be followed for the development of long-term sequelae. Inhalation exposure to oil mists below current workplace exposure limits is unlikely to cause pulmonary abnormalities.

SECTION 5 FIRE-FIGHTING MEASURES

NFPA704 Hazard Class: Health: 0 Flammability: 1 Instability: 0



0 (Minimal)
1 (Slight)
2 (Moderate)
3 (Serious)
4 (Severe)

Extinguishing Media

Suitable: Recommended extinguishing media; alcohol resistant foam, CO₂, powder, water spray. Do not use; water jet.

Special Hazards arising from the substance or mixture: Hazardous decomposition: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids and gases including carbon monoxide, carbon dioxide and unidentified organic compounds will be evolved when this material undergoes combustion.

Protection for Fire Fighters:

Fire-Fighting Instructions: Firefighting personnel should respond with appropriate protective clothing, firefighting gear, and breathing equipment as trained. All other personnel should exit the area and proceed to a gathering point in an area unaffected by the fire and smoke.

See Section 9 for Flammable Properties including Flash Point and Flammable (Explosive) Limits

ERG Guide No.: 128

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Put on appropriate personal protective equipment (see section 8).

Environmental precautions: Do not allow spills to enter drains or waterways. Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

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Protective Measures: Eliminate all sources of ignition in vicinity of spilled material.

Spill Management: Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

Reporting: Report spills to local authorities and/or the U.S. Coast Guard's National Response Center at (800) 424-8802 as appropriate or required.

SECTION 7 HANDLING AND STORAGE

Precautionary Measures: Keep away from flames and hot surfaces. Use good personal hygiene practices and wear appropriate personal protective equipment. Spills will produce very slippery surfaces.

Conditions for safe storage, including any incompatibilities

Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

Static hazard: Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. For more information, refer to OSHA Standard 29 CFR 1910.106, 'Flammable and Combustible Liquids', National Fire Protection Association (NFPA 77, 'Recommended Practice on Static Electricity', and/or the American Petroleum Institute (API) Recommended Practice 2003, 'Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents'.

Container Warnings: Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

Incompatible materials: Strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters:

| CAS No. | Ingredient | Source | Value |
|--------------|--|--------|--|
| 0064742-54-7 | Distillates (Petroleum), hydrotreated heavy paraffinic | OSHA | TWA exposure limits for oil mist are 5 mg/m ³ |
| | | ACGIH | STEL 10 mg/m ³ as oil mist, if generated |
| | | NIOSH | No established limit |

Contains mineral oil. The exposure limits for oil mist are 5 mg/m³ OSHA PEL and 10 mg/m³ ACGIH

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| CAS No. | Ingredient | Source | Value |
|--------------|---|--------|--------------------------|
| 0064742-54-7 | Distillates (Petroleum), hydrotreated heavy paraffinic | OSHA | |
| | | NTP | Known: No; Suspected: No |

Carcinogen Data

Exposure Controls: Use in a well-ventilated area.

Personal Protective Equipment:

Engineering Controls: Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

Other Work Practices: Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

Eye/Face Protection: No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

Skin and Body Protection: Wear overalls to keep skin contact to a minimum. Nitrile rubber gloves should be worn.

Respiratory Protection: If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Attention: the data below are typical values and do not constitute a specification.

Color: Colorless

Physical State: Liquid

Odor: Petroleum odor

Odor Threshold: No data available

pH: Not applicable

Vapor Pressure: <0.01 mmHg @ 37.8°C (100°F)

Vapor Density (Air = 1): >1

Initial Boiling Point: <260°C (500°F)

Solubility: Soluble in hydrocarbon; insoluble in water.

Melting Point: Not applicable

Freezing Point: Not applicable

Specific Gravity: 0.85 -0.88 @ 15.6°C (60.1°F) / 15.6°C (60.1°F) (Approximate)

Pour Point: 12°C (10°F)

Viscosity: 6-12.6cSt @ 100°C (212°F) (Min)

Evaporation Rate: No data available

Decomposition temperature: No data available

Octanol/Water Partition Coefficient: No data available

Flammable Properties:

Flammability (solid, gas): No data available

Flash Point: (Cleveland Open Cup) 216°C (420°F) Minimum

Auto-ignition temperature: No data available

Flammability (Explosive) Limits (% by volume in air): Lower: Not applicable Upper: Not applicable

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SECTION 10 STABILITY AND REACTIVITY

Reactivity: This material is not expected to react.

Chemical Stability: Stable under normal circumstances.

Possibility of Hazardous Reactions: No data available.

Conditions to Avoid: Extended exposure to high temperatures can cause decomposition. Avoid all possible sources of ignition.

Incompatibility With Other Materials: Strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

Hazardous Decomposition Products: Not anticipated under conditions of normal use.

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects:

| Ingredient | Oral LD50 g/kg | Skin LD 50, g/kg | Inhalation Vapor LD50, mg/L/4hr | Inhalation Dust/Mist LD50, g/L/4hr | Inhalation Gas LD50, ppm |
|---|-----------------------|-------------------|------------------------------------|---------------------------------------|-----------------------------|
| Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7) | >5 Rat- Category 5 | >2g/kg Category 4 | No data available | >5 Rat – Category 5 | No data available |

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Serious Eye Damage/Irritation: Not applicable

Skin Corrosion/Irritation: Not applicable

Acute Dermal Toxicity: Not applicable

Acute Oral Toxicity: Not applicable

Acute Inhalation Toxicity: Not applicable

Respiratory Sensitization: Not applicable

Germ Cell Mutagenicity: Not applicable

Carcinogenicity: Not applicable

Reproductive Toxicity: Not applicable

Specific Target Organ Toxicity – Single Exposure: Not applicable

Specific Target Organ Toxicity – Repeated Exposure: Not applicable

SECTION 12 ECOLOGICAL INFORMATION

Ecotoxicity:

All acute aquatic toxicity studies on samples of lubricant base oils show acute toxicity values greater than 100mg/l for invertebrates, algae and fish. These tests were carried out on water accommodated fractions and the results are consistent with predicted aquatic toxicity of these substances based on their hydrocarbon compositions. Not classified hazards.

Environmental Fate:

This material is considered inherently biodegradable. This material is not expected to present any environmental problems other than those associated with oil spills. This material is not readily biodegradable. See Section 6 for Accidental Release Measures.

| Ingredient | 96 hr LC50 fish, mg/l | 48 hr EC50 crustacea, mg/l | ErC50 algae, mg/l |
|------------|-----------------------|----------------------------|-------------------|
|------------|-----------------------|----------------------------|-------------------|

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| | | | |
|---|----------------------------|----------------------|---------------|
| Distillates (petroleum), hydrotreated heavy paraffinic - (64742-54-7) | 5,000, Oncorhynchus mykiss | 1,000, Daphnia magna | Not Available |
|---|----------------------------|----------------------|---------------|

Persistence and Degradability:

Persistence per IOPC Fund definition: persistent

Potential to Bioaccumulate: Not Measured

Mobility in Soil: No data available

Results of PBT and vPvB Assessment (Persistent, bioaccumulative and toxic, very persistent, very bioaccumulative): This product contains no PBT/vPvB chemicals.

Other Adverse Effects: None expected

SECTION 13 DISPOSAL CONSIDERATIONS

Waste Treatment Methods:

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods. (See B.C. Reg. GY/92 Waste Management Act; R.R.O. 1990, Reg. 347 General-Waste Management; C.C.S.M.c. W40 The Waste Reduction and Prevention Act; N.S. Reg. 51/95 and N.S. Reg. 179/96 for examples of Provincial legislation.)

SECTION 14 TRANSPORT INFORMATION

| | DOT (Domestic Surface Transportation) | IMO/IMDG (Ocean Transportation) | ICAO/IATA |
|--------------------------------------|--|---------------------------------|---------------------------|
| UN Number: | Not applicable | | |
| UN Proper Shipping Name: | PETROLEUM OIL, N.O.I.B.N., NOT REGULATED AS A HAZARDOUS MATERIAL | Not Regulated | Not Regulated |
| Transport Hazard Class(es): | | | |
| DOT Hazard Class: | Not Applicable | IMDG: Not applicable | Air Class: Not applicable |
| DOT Label: --- | --- | Sub Class: Not applicable | |
| Packing Group: | Not applicable | Not applicable | Not applicable |
| Environmental Hazards: | | | |
| Marine Pollutant: | No | | |
| IMDG | | | |
| Special Precautions for User: | No further information | | |

SECTION 15 REGULATORY INFORMATION

Regulatory Overview: The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Toxic Substance Control Act (TSCA): All components of this material are either listed or exempt from listing on the TSCA Inventory.

WHMIS Classification: Not regulated

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1. Immediate (Acute) Health Effects: No
2. Delayed (Chronic) Health Effects: No
3. Fire Hazard: No
4. Sudden Release of Pressure Hazard: No
5. Reactivity Hazard: No

| | |
|---|-------------------------------|
| EPCRA 311/312 Categories | No product ingredients listed |
| EPCRA 302 Extremely Hazardous | No product ingredients listed |
| EPCRA 313 Toxic Chemicals: | No product ingredients listed |
| Proposition 65 – Carcinogens (>0.0%): | No product ingredients listed |
| Proposition 65 – Female Repro Toxins (>0.0%): | No product ingredients listed |
| Proposition 65 – Male Repro Toxins (>0.0%): | No product ingredients listed |
| N.J. RTK Substance (>1%): | No product ingredients listed |
| Penn RTK Substances (>1&): | No product ingredients listed |

| Chemical Name | AICS | DSL | CHINA | EINCS | ENCS | KOREA | PICCS | TSCA | CANADA |
|---|------|-----|-------|-------|------|-------|-------|------|--------|
| Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7) | X | X | X | X | X | X | X | X | X |

US Export Control Classification Number: EAR99

SECTION 16 OTHER INFORMATION

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

The data on this SDS relates only to the specific material described and does not relate to its use in combination with other materials or in any process.

This is the first version in the GHS SDS format. Listing of changes from previous versions in other formats are not applicable.

Parman Energy makes no warranty, representation or guarantee as to the accuracy, sufficiency or completeness of the material set forth herein. It is the user's responsibility to determine the safety, toxicity, and suitability of his own use, handling, and disposal of this product. Since actual use by others is beyond our control, no warranty, expressed or implied, is made by Parman Energy as to the effects of such use, the results to be obtained or the safety and toxicity of this product, nor does Parman Energy assume liability arising out of the use by others of this product referred to herein. The data in this SDS relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

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