



January 23, 2019

Renkert Oil produces Renoil 70-W, a food grade white oil that meets NF / FDA 21CFR178.3620(a) and 21CFR172.878 requirements. As shown on each Certificate of analysis Renoil 70-W USP food grade white oil meets or exceeds these standards.

Renoil 70-W also is NSF registered for a variety of uses in the food industry(3H, H1, HX-1) Renoil 70-W, as well as the rest of our food grade mineral oil line, is odorless, tasteless and considered harmless to human health.

Renoil 70-W is certified Kosher and Halal. It is registered with REACH. White mineral oil is generally regarded as safe. Renkert uses a date based lot code yymmdd – example:

Lot 180122

January 22, 2018

Renkert Oil guarantees that our white mineral oil products as of the date of shipment or delivery to be not adulterated or misbranded within the meaning of the Federal Food, Drug and Cosmetic Act. Further these products are not prohibited to be introduced into interstate commerce under the provisions of section 404, 505 or 512 of the act.

Renoil 70-W is produced from virgin mineral oils and have no contact with nuts or gluten or other potentially allergenic materials either in production, storage or transport. No GMO materials come in contact in production handling or storage. Further no contact with animal products precludes any contact with BSE/TSE.

Renkert Oil operates per Good Manufacturing Practices, and an ISO compliant process. We perform annual independent audits of our facilities. HACCP analysis is conducted annually. Although mineral oil will not support microorganisms, we test regularly to prove a lack of microbiological contamination.

A safe shelf life is 5 years, but this can be impacted by contact with oxygen, sunlight and high temperatures. Room temperature storage is ideal.

Mineral oil is a direct food contact material. The FDA Food Safety / bioterrorism requirements are covered by our compliance with FSMA and our SQF certification (global food safety independent certification). Renkert Oil manages its dedicated facilities to protect the integrity of our USP white mineral oils and prevent adulteration.

RENOIL™ WHITE MINERAL OILS



CUSTOMER BENEFITS

Renoil White Oils deliver value through:

- **A high degree of purity** — Colorless, odorless, tasteless. The purity of Renoil White Oils accounts for their frequent use in medicinal and cosmetic products. The low phytotoxicity of Renoil White Oils can make them a preferred component of products applied to agricultural and ornamental plants.
- **A wide application range** — Renoil White Oils are common ingredients of pharmaceuticals and cosmetics. The plastics, textile and food industries are major users of Renoil White Oils.

FEATURES

Renoil White Oils are colorless, odorless, tasteless mixtures of saturated paraffinic and naphthenic hydrocarbons that span a viscosity range of 60-550 SUS at 100°F.

These nearly chemically inert oils are virtually free of nitrogen, sulfur, oxygen and aromatic hydrocarbons.

Renoil White Oils contain Vitamin E, a natural antioxidant, to protect quality during handling and storage.

They are clear, bright and free of solids and water.

APPLICATIONS

Renoil White Oils find wide application:

- where direct food contact may occur
- where prolonged contact with human skin is necessary
- where odor and staining must be minimized
- where outstanding long service under adverse conditions is required

Renoil White Oils must be stored in approved containers to prevent contamination that could jeopardize their food grade status.

Renoil White Oils:

- meet or exceed **U.S. Food and Drug Administration (FDA)** requirements
 - for direct use in food, 21 CFR 172.878
 - for applications where incidental food contact may occur, 21 CFR 178.3570
 - for use in animal feed, 21 CFR 573.680
 - for use as technical white oils, 21 CFR 178.3620(b)
 - for use as a plasticizer in polymeric substances, 21 CFR 178.3740
- meet all **U.S. Pharmacopeia (USP)** requirements for mineral oils
- meet all **Cosmetic, Toiletry, and Fragrance Association (CTFA)** requirements for white mineral oils
- meet all **Canadian Food Inspection Agency (CFIA)** requirements for white mineral oils
- are certified by **NSF** and are acceptable as lubricants where incidental food contact may occur (H1) in and around food processing areas and as a release agent (3H) where direct food contact may occur. The NSF Nonfood Compounds Registration Program is a continuation of the USDA product approval and listing program, which is based on meeting regulatory requirements of appropriate use, ingredient review and labeling verification.
- are certified **Kosher, Pareve** and **Halal**.
- all European Pharmacopeia (EP) requirements for mineral oils

All trademarks are the property of Renkert Oil, LLC.

Renkert Oil, LLC

RENOIL™ WHITE OILS — CONTINUED



TEST DATA

White Mineral Oil

Typical Properties	Methods	DCO	70-W	90-W	100-W	220-W	350-W	500-W
Gravity API Specific, 25°C/25°C	ASTM D4052	31.6 0.864	33.3 0.854	33.3 0.854	33.8 0.85	31.8 0.86	31.2 0.864	31.0 0.871
Viscosity, Kinematic cSt at 40°C	ASTM D445	10	13	17	20	43	68	95
Viscosity, Saybolt SUS at 100°F	ASTM D2161	62	70	90	105	220	350	550
Flash Point, °C(°F)	ASTM D92	174(345)	177(350)	177(350)	200(392)	225(437)	230(446)	260(500)
Pour Point, °C(°F)	ASTM D5950	-33(-27)	-27(-17)	-15(5)	-12(10)	-12(10)	-12(10)	-12(10)
Color, Saybolt	ASTM D156	30	30	30	30	30	30	30
21 CFR 172.878 (a)	FDA	Pass	Pass	Pass	Pass	Pass	Pass	Pass
21 CFR 178.3620 (a)	FDA	Pass	Pass	Pass	Pass	Pass	Pass	Pass

Technical Grade

Typical Properties	Methods	60-T	70-T	90-T	100-T	220-T	350-T	500-T
Gravity API Specific, 25°C/25°C	ASTM D4052	31.6 0.864	33.3 0.854	33.3 0.854	33.8 0.85	31.8 0.86	31.2 0.864	30.5 0.867
Viscosity, Kinematic cSt at 40°C	ASTM D445	10	13	17	20	43	68	105
Viscosity Saybolt SUS at 100°F	ASTM D2161	62	70	90	105	220	350	500
Flash Point, °C (°F)	ASTM D92	177(350)	177(350)	177(350)	200(392)	225(437)	230(446)	267(512)
Pour Point, °C(°F)	ASTM D5950	-33(-27)	-27(-17)	-15(5)	-12(10)	-12(10)	-12(10)	-12(10)
Color, Saybolt	ASTM D156	28	28	28	28	28	28	25
21 CFR 178.3620 (b)	FDA	Pass	Pass	Pass	Pass	Pass	Pass	Pass

Typical test data are average values only. Minor variations which do not affect product performance are to be expected in normal manufacturing. All trademarks are the property of Renkert Oil, LLC.

Contact us for further information about specifications, applications, samples and delivery.



1. Identification of the substance/mixture and of the company

1.1. Product Identifier

Product Identity

Renoil DCO, Renoil 60-W, Renoil 70-W,
Renoil 80-W, Renoil 90-W, Renoil 100-W

Alternate Names

White mineral oil

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

Intended use

Lubricant, personal care, food process oil

Application Method

Varied

2. Hazard identification of the product

2.1. Classification of the substance or mixture

H304 – Aspiration Hazard – Category 1

Other Hazards: none known

2.2. Label elements



DANGER

May be fatal if swallowed and enters airways
IF SWALLOWED: Immediately call a POISON CENTE
or doctor/physician; Do NOT induce vomiting; Dispose
of contents/container to approved disposal facility

[Prevention]:

No GHS prevention statements

[Response]:

No GHS response statements

[Storage]:

No GHS storage statements

[Disposal]:

No GHS disposal statements



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

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
White mineral oil CAS Number: 8042-47-5	100		[1]

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

4. First aid measures

4.1. Description of 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.
- Eyes** 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. Not expected to cause prolonged or significant eye irritation.
- Skin** Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser. Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin.
- Ingestion** Not expected to be harmful if swallowed. Do NOT induce vomiting.

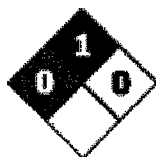
4.2. Most important symptoms and effects, both acute and delayed

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.



5. Fire-fighting measures

NFPA 704 Hazard Class **Health: 0** **Flammability: 1** **Instability: 0**



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

5.1. Extinguishing media

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

5.2. 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

5.3. Advice for fire-fighters

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

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

6.2. 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.

6.3. Methods and material for containment and cleaning up

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 as appropriate or required.



7. Handling and storage

7.1. Precautions for safe handling

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

7.2. 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.

8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
8042-47-5	White Mineral Oil	OSHA	exposure limits for oil mist are 5 mg/m3
		ACGIH	10 mg/m3
		NIOSH	No Established Limit

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

Carcinogen Data

CAS No.	Ingredient	Source	Value
8042-47-5	White Mineral Oil	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No



8.2. Exposure controls

Respiratory

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

Eyes

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

Skin

Wear overalls to keep skin contact to a minimum. Nitrile rubber gloves should be worn.

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.

9. Physical and chemical properties

Appearance	Colorless Liquid
Odor	Petroleum Odor
Odor threshold	Not Measured
pH	Not Applicable
Melting point / freezing point	Not Applicable
Initial boiling point and boiling range	> 260 C (500 F)
Flash Point	311 F (155 C) minimum (Cleveland Open Cup)
Evaporation rate (Ether = 1)	Not Measured
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	Lower Explosive Limit: Not Measured Upper Explosive Limit: Not Measured
Vapor pressure (Pa)	< 0.01 mmHg @ 37.8 C (100 F)
Vapor Density	> 1
Specific Gravity	0.85 - 0.87 @ 15.6 C (60.1F) / 15.6 C (60.1 F)
Solubility in Water	Soluble in hydrocarbon solvents, insoluble in water.
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature	Not Measured
Decomposition temperature	Not Measured
Viscosity (cSt)	9-20 cSt @ 40 C (104 F)



Pour point

-40C (-40F) to -12C (10 F)

DMSO extract by IP346: Less than 3.0 wt %

10. Stability and reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

None known (none expected).

10.4. Conditions to avoid

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

10.5. Incompatible materials

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

10.6. Hazardous decomposition products

Not anticipated under conditions of normal use.

11. Toxicological information

Acute toxicity

Ingredient	Oral LD50, g/kg	Skin LD50, g/kg	Inhalation Vapor LD50, mg/L/4hr	Inhalation Dust/Mist LD50, g/L/4hr	Inhalation Gas LD50, ppm
White Mineral Oil (8042-47-5)	>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).

Classification	Category	Hazard Description
Acute toxicity (oral)	---	Not Applicable
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	---	Not Applicable
Serious eye damage/irritation	---	Not Applicable
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable



Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

12. Ecological information

GHS Classification: No classified hazards

12.1. Toxicity

ECOTOXICITY

All acute aquatic toxicity studies on samples of similar 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.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
White Mineral Oil (8042-47-5)	5,000, Oncorhynchus mykiss	1,000, Daphnia magna	Not Available

12.2. Persistence and degradability

Persistence per IOPC Fund definition: persistent

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment (persistent, bioaccumulative and toxic, very persistent, very bioaccumulative) This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

None expected

13. Disposal considerations

13.1. 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.)



14. Transport information

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
14.1. UN number	Not Applicable		
14.2. UN proper shipping name	PETROLEUM OIL, N.O.I.B.N., NOT REGULATED AS A HAZARDOUS MATERIAL	Not Regulated	Not Regulated
14.3. Transport hazard class(es)	DOT Hazard Class: Not Applicable DOT Label: ---	IMDG: Not Applicable Sub Class: Not Applicable	Air Class: Not Applicable
14.4. Packing group	Not Applicable	Not Applicable	Not Applicable
14.5. Environmental hazards			
IMDG	Marine Pollutant: No		
14.6. Special precautions for user	No further information		

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

US EPA Tier II Hazards **Fire: No** **Reactive: No**
Sudden Release of Pressure: No
Delayed (Chronic): No **Immediate (Acute):No**

- EPCRA 311/312 Chemicals and RQs:** (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 - Developmental Toxins (>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 Substances (>1%) :** (No Product Ingredients Listed)
- Penn RTK Substances (>1%) :** (No Product Ingredients Listed)

National Chemical Inventories

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



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. Listings of changes from previous versions in other formats are not applicable.

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