Section 1. Identification

C-4s Refrigeration Oil

4304-01, 4304-05, 4304-07

Not available.

Liquid.

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

Lubricating agent

	Reason
None known.	

Nu-Calgon Wholesaler, Inc.
2611 Schuetz Road
St. Louis, MO 63043
USA
314-469-7000 / 800-554-5499

24 hr. CHEMTREC 1-800-424-9300 / International 1-703-527-3887

Section 2. Hazards identification

While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Not classified.

No signal word.

No known significant effects or critical hazards.

Not applicable.

Not applicable.

Not applicable.

Not applicable.

None known.

Section 3. Composition/information on ingredients

Substance

Not available.

Section 3. Composition/information on ingredients

	%	CAS number
Distillates (petroleum), clay-treated heavy naphthenic	100	64742-44-5

The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3 % DMSO extract as measured by IP 346

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 and hence require reporting in this section.

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

Section 4. First aid measures

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

No known significant effects or critical hazards.

No known significant effects or critical hazards.

No known significant effects or critical hazards.

No known significant effects or critical hazards.

No specific data.

No specific data.

No specific data.

No specific data.

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

No specific treatment.

No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Use an extinguishing agent suitable for the surrounding fire.

Do not use water jet.

Section 5. Fire-fighting measures

In a fire or if heated, a pressure increase will occur and the container may burst.

Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

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.

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

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. Put on appropriate personal protective equipment.

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".

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 material for containment and cleaning up

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, 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. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

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

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. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

	Exposure limits
Distillates (petroleum), clay-treated heavy naphthenic	**ACGIH TLV (United States, 1/2022). [Mineral Oil, pure, highly and severely refined]** TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction **OSHA PEL (United States, 5/2018). [Oil mist, mineral]** TWA: 5 mg/m³ 8 hours. **NIOSH REL (United States, 10/2020). [OIL MIST MINERAL]** TWA: 5 mg/m³ 10 hours. Form: Mist STEL: 10 mg/m³ 15 minutes. Form: Mist

No exposure indices known.

Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

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.

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.

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: safety glasses with side-shields.

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.

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.

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.

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 and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Liquid.

Not available.

Not available.

Not available.

Not available.

Not available.

Not available.

Open cup: 185°C (365°F) [Cleveland]

<0.04 (butyl acetate = 1)

Not available.

Not available.

Not available.

Not available.

0.916

Media	Result
cold water hot water	Not soluble Not soluble

Not available.

Not applicable.

Not available.

Not available.

Kinematic (40°C (104°F)): 61.43 mm^2/s (61.43 cSt)

Not available.

-36°C (-32.8°F)

Not applicable.

Section 10. Stability and reactivity

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

The product is stable.

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

No specific data.

No specific data.

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

Section 11. Toxicological information

	Result	Species	Dose	Exposure
Distillates (petroleum), clay-treated heavy naphthenic	LC50 Inhalation Dusts and mists	Rat	>5.53 mg/l	4 hours
	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-

Not available.

Not available.

Not available.

Not available.

Not available.

Not available.

Not available.

Not available.

	Result
Distillates (petroleum), clay-treated heavy naphthenic	ASPIRATION HAZARD - Category 1

Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

No known significant effects or critical hazards.

No known significant effects or critical hazards.

No known significant effects or critical hazards.

No known significant effects or critical hazards.

No specific data.

No specific data.

No specific data.

No specific data.

Not available.

Section 11. Toxicological information

Not available.

Not available.

Not available.

No known significant effects or critical hazards.

No known significant effects or critical hazards.

No known significant effects or critical hazards.

No known significant effects or critical hazards.

	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
C-4s Refrigeration Oil	N/A	2500.0	N/A	N/A	N/A
Distillates (petroleum), clay-treated heavy naphthenic	N/A	2500	N/A	N/A	N/A

Section 12. Ecological information

	Result	Species	Exposure
Distillates (petroleum), clay-treated heavy naphthenic	Acute EC50 >100 mg/l	Algae	72 hours
	Acute EC50 >100 mg/l	Daphnia	48 hours
	Acute LC50 >100 mg/l	Fish	96 hours
	Chronic NOEL >1 mg/l	Daphnia	21 days

	Aquatic half-life	Photolysis	Biodegradability
Distillates (petroleum), clay-treated heavy naphthenic	-	-	Inherent

	$LogP_{ow}$	BCF	Potential
Distillates (petroleum), clay-treated heavy naphthenic	2 to 6	-	High

Not available.

No known significant effects or critical hazards.

Section 13. Disposal considerations

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. 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

	TDG Classification	IMDG	IATA
Not regulated.	Not regulated.	Not regulated.	Not regulated.

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.

Not available.

Section 15. Regulatory information

TSCA 8(a) CDR Exempt/Partial exemption: All components are listed or exempted.

Clean Water Act (CWA) 307: benzo[k]fluoranthene

Not listed

Not listed

Not listed

Not listed

Not listed

No products were found.

Not applicable.

Not applicable.

	%	Classification
Distillates (petroleum), clay-treated heavy naphthenic	100	ASPIRATION HAZARD - Category 1

Section 15. Regulatory information

None of the components are listed.

None of the components are listed.

None of the components are listed.

⚠ **WARNING**: This product can expose you to Benzo[k]fluoranthene, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.
Information provided is based on industrial use and may not be relevant to consumer applications.

	Concentration (%)	No significant risk level	Maximum acceptable dosage level
Benzo[k]fluoranthene	0.00064	-	-

All components are listed or exempted.

All components are listed or exempted.

All components are listed or exempted.

Russian Federation inventory: All components are listed or exempted.

All components are listed or exempted.

All components are listed or exempted.

All components are listed or exempted.

All components are listed or exempted.

All components are listed or exempted.

Not determined.

All components are active or exempted.

All components are listed or exempted.

Section 16. Other information

Flammability

Instability/Reactivity

Special

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Classification	Justification
Not classified.	

08/03/2023

12/15/2022

Section 16. Other information

ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

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