

SAFETY DATA SHEET

	RL 32HB (4314-62)
on	
	Mixture
estriction on use	•
	Refrigeration Lubricants.
	None identified.
the safety data s	heet
Nu-Calgon	
2611 Schultz	Road
St. Louis, M	D 63043
US	0 / 800-554-549
	estriction on use the safety data s Nu-Calgon 2611 Schultz

2. Hazard(s) identification

Hazard Classification Health Hazards

nealth hazalus	
Toxic to reproduction Unknown toxicity	Category 2
Acute toxicity, inhalation, vapor	99.9 %
Acute toxicity, inhalation, dust or mist	2.0 %

Label Elements:

Hazard Symbol:



Suspected of damaging fertility.

Precautionary Statements:

Prevention:	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.
Response:	IF exposed or concerned: Get medical advice/attention.
Storage:	Store locked up.
Disposal:	Dispose of contents/ container to an approved facility in accordance with local, regional, national and international regulations.
Other hazards which do not result in GHS classification:	None identified.

3. Composition/information on ingredients

Chemical name	CAS number	Percent by Weight
Tricresyl phosphate	1330-78-5	1 – 5%

4. First-aid measures

General information:	IF exposed or concerned: Get medical advice/attention.
Ingestion:	Rinse mouth. Get medical attention if symptoms occur.
Inhalation:	Remove exposed person to fresh air if adverse effects are observed.
Skin Contact:	Take off contaminated clothing and wash before re-use. Wash with soap and water. If skin irritation occurs, get medical attention.
Eye contact:	Flush thoroughly with water. If irritation occurs, get medical assistance. Remove contact lenses, if present and easy to do. Continue rinsing.
Most important symptoms/ef	ffects, acute and delayed
Symptoms:	See section 11.
Indication of immediate med	ical attention and special treatment needed
Treatment:	Treat symptomatically.
5. Fire-fighting measures	
General Fire Hazards:	No unusual fire or explosion hazards noted.
Suitable (and unsuitable) ext Suitable extinguishing media:	t inguishing media CO2, dry chemical, foam, water spray, water fog.

Unsuitable extinguishing media:Not determined.Specific hazards arising from the chemical:See section 10 for additional information.Special protective equipment and procedures:Precautions for firefighters No data available.Special protective equipment for fire-fighters:Recommend wearing self-contained breathing apparatus.6. Accidental release measuresPersonal precautions, protective equipment and emergency procedures:Personal precautions, protective equipment and emergency procedures:Personal Protective Equipment must be worn, see Personal Protection Section for PPE recommendations.Environmental Precautions: containment and cleaning up:Avoid release to the environment. Prevent further leakage or spillage if safe to do so.Methods and material for containment and cleaning up:Dike far ahead of larger spill for later recovery and disposal. Pick up free liquid for recycle and/or disposal. Residual liquid can be absorbed on inert material.7. Handling and storageDo not handle until all safety precautions have been read and understood. Obtain special instructions before use. Observe good industrial hygiene practices. Provide adequate ventilation. Use personal protective equipment as required. Launder contaminated clothing before reuse. Avoid environmental contamination.Maximum Handling Temperature:Not determined.		
the chemical: Special protective equipment and precautions for firefighters Special fire fighting procedures: No data available. Special protective equipment for fire-fighters: Recommend wearing self-contained breathing apparatus. 6. Accidental release measures Personal precautions, protective equipment and emergency procedures: Environmental Precautions: Personal Protective Equipment must be worn, see Personal Protection Section for PPE recommendations. Environmental Precautions: Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Methods and material for containment and cleaning up: Dike far ahead of larger spill for later recovery and disposal. Pick up free liquid for recycle and/or disposal. Residual liquid can be absorbed on inert material. 7. Handling and storage Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Observe good industrial hygiene practices. Provide adequate ventilation. Use personal protective equipment as required. Launder contaminated clothing before reuse. Avoid environmental contaminated. Maximum Handling Not determined.		Not determined.
Special fire fighting procedures:No data available.Special protective equipment for fire-fighters:Recommend wearing self-contained breathing apparatus.6. Accidental release measuresPersonal precautions, protective equipment and emergency procedures:Personal Protective Equipment must be worn, see Personal Protection Section for PPE recommendations.Environmental Precautions:Personal release to the environment. Prevent further leakage or spillage if safe to do so.Methods and material for containment and cleaning up:Dike far ahead of larger spill for later recovery and disposal. Pick up free liquid for recycle and/or disposal. Residual liquid can be absorbed on inert material.7. Handling and storageDo not handle until all safety precautions have been read and understood. Obtain special instructions before use. Observe good industrial hygiene practices. Provide adequate ventilation. Use personal protective equipment as required. Launder contaminated clothing before reuse. Avoid environmental contamination.Maximum HandlingNot determined.		See section 10 for additional information.
equipment for fire-fighters: 6. Accidental release measures Personal precautions, protective equipment and emergency procedures: Environmental Precautions: Personal Protective Equipment must be worn, see Personal Protection Section for PPE recommendations. Methods and material for containment and cleaning up: Dike far ahead of larger spill for later recovery and disposal. Pick up free liquid for recycle and/or disposal. Residual liquid can be absorbed on inert material. 7. Handling and storage Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Observe good industrial hygiene practices. Provide adequate ventilation. Use personal protective equipment as required. Launder contaminated clothing before reuse. Avoid environmental contamination. Maximum Handling Not determined.	Special fire fighting	
Personal precautions, protective equipment and emergency procedures:Personal Protective Equipment must be worn, see Personal Protection Section for PPE recommendations.Environmental Precautions:Avoid release to the environment. Prevent further leakage or spillage if safe 	· ·	Recommend wearing self-contained breathing apparatus.
protective equipment and emergency procedures:Section for PPE recommendations.Environmental Precautions:Avoid release to the environment. Prevent further leakage or spillage if safe to do so.Methods and material for containment and cleaning up:Dike far ahead of larger spill for later recovery and disposal. Pick up free liquid for recycle and/or disposal. Residual liquid can be absorbed on inert material.7. Handling and storageDo not handle until all safety precautions have been read and understood. Obtain special instructions before use. Observe good industrial hygiene practices. Provide adequate ventilation. Use personal protective equipment as required. Launder contaminated clothing before reuse. Avoid environmental contamination.Maximum HandlingNot determined.	6. Accidental release measures	8
Methods and material for containment and cleaning up:Dike far ahead of larger spill for later recovery and disposal. Pick up free liquid for recycle and/or disposal. Residual liquid can be absorbed on inert material.7. Handling and storageDo not handle until all safety precautions have been read and understood. Obtain special instructions before use. Observe good industrial hygiene practices. Provide adequate ventilation. Use personal protective equipment as required. Launder contaminated clothing before reuse. Avoid environmental contamination.Maximum HandlingNot determined.	protective equipment and	
containment and cleaning up:liquid for recycle and/or disposal. Residual liquid can be absorbed on inert material.7. Handling and storagePrecautions for safe handling:Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Observe good industrial hygiene practices. Provide adequate ventilation. Use personal protective equipment as required. Launder contaminated clothing before reuse. Avoid environmental contamination.Maximum HandlingNot determined.	Environmental Precautions:	5 1 5
Precautions for safe handling:Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Observe good industrial hygiene practices. Provide adequate ventilation. Use personal protective equipment as required. Launder contaminated clothing before reuse. Avoid environmental contamination.Maximum HandlingNot determined.		liquid for recycle and/or disposal. Residual liquid can be absorbed on inert
Obtain special instructions before use. Observe good industrial hygiene practices. Provide adequate ventilation. Use personal protective equipment as required. Launder contaminated clothing before reuse. Avoid environmental contamination.Maximum HandlingNot determined.	7. Handling and storage	
5	Precautions for safe handling:	Obtain special instructions before use. Observe good industrial hygiene practices. Provide adequate ventilation. Use personal protective equipment as required. Launder contaminated clothing before reuse. Avoid
	0	Not determined.
Conditions for safe storage, including anyStore away from incompatible materials. See section 10 for incompatible materials.incompatibilities:Store away from incompatible materials. See section 10 for incompatible materials.	including any	
Maximum Storage Not determined. Temperature:		Not determined.

8. Exposure controls/personal protection

Control Parameters: Occupational Exposure Limits None of the components have assigned exposure limits.

Appropriate engineering	No special requirements under ordinary conditions of use and with
controls:	adequate ventilation.

Individual protection measures, such as personal protective equipment

General information:	Use personal protective equipment as required.
Eye/face protection:	If contact is likely, safety glasses with side shields are recommended.
Skin Protection Hand Protection:	Neoprene. Nitrile.
Other:	Gloves, coveralls, apron, boots as necessary to minimize contact.
Respiratory Protection:	A respiratory protection program compliant with all applicable regulations must be followed whenever workplace conditions require the use of a respirator. Under normal use conditions, respirator is not usually required. Use appropriate respiratory protection if exposure to dust particles, mist or vapors is likely. Use self-contained breathing apparatus for entry into confined space, for other poorly ventilated areas and for large spill clean-up sites.
Hygiene measures:	Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Observe good industrial hygiene practices.

9. Physical and chemical properties

Appearance	
Physical state:	liquid
Form:	liquid
Color:	Clear
Odor:	Mild
Odor threshold:	No data available.
pH:	Not applicable
Freezing point:	No data available.
Boiling Point:	No data available.
Flash Point:	> 392 °F (200 °C) (Cleveland Open Cup)
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Upper/lower limit on flammability or explosi	ve limits
Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper:	No data available.
Explosive limit - lower:	No data available.
Vapor pressure:	No data available.
Vapor density:	No data available.
Relative density:	0.975 - 0.983 60.1 °F (15.6 °C)
Solubility(ies)	
Solubility in water:	Slightly Soluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.

Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	33.7 mm2/s(104 °F (40 °C))5.9 mm2/s(100 °C (212 °F))
Viscosity:	33.7 mm2/s(104 °F(40 °C))5.9 mm2/s(100 °C(212 °F))

10. Stability and reactivity

Reactivity:	No data available.
Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	Will not occur.
Conditions to avoid:	Not determined.
Incompatible Materials:	Strong oxidizing agents. Strong acids. Oxidizing agents. Strong bases.
Hazardous Decomposition Products:	Thermal decomposition or combustion may generate smoke, carbon monoxide, carbon dioxide, and other products of incomplete combustion.

11. Toxicological information

Information on likely routes of exposure		
Inhalation:	No data available.	
Ingestion:	No data available.	
Skin Contact:	Causes mild skin irritation.	
Eye contact:	No data available.	
Information on toxicological effe	ects	
Acute toxicity		
Oral		
Product:	Not classified for acute toxicity based on available data. Ingestion of this material can result in neurotoxicity. Signs and symptoms include increased sweating of hands and feet, numbness, tingling and weakness in extremities, unsteady gait and decreased reflexes.	
Dermal		
Product:	ATEmix > 5,000 mg/kg Skin absorption of components of this material will cause systemic effects; note toxicity in other sections.	
Inhalation		
Product:	High concentrations may cause headaches, dizziness, fatigue, nausea, vomiting, drowsiness, stupor, other central nervous system effects leading to visual impairment, respiratory failure, unconsciousness and death.	
Skin Corrosion/Irritation: Product:	Remarks: Prolonged or repeated contact may cause irritation. Causes mild skin irritation.	

	Remarks: Not classified as a primary eye irritant.
Respiratory sensitization:	No data available
Skin sensitization:	No data available
Specific Target Organ Toxic Tricresyl phosphate	city - Single Exposure: If material is misted or if vapors are generated from heating, exposure may cause irritation of mucous membranes and the u respiratory tract.
Aspiration Hazard:	No data available
Other effects:	
Chronic Effects	
Carcinogenicity:	
	No data available
IARC Monographs on the E	valuation of Carcinogenic Risks to Humans:
No carcinogenic components	_
US. National Toxicology Pro	ogram (NTP) Report on Carcinogens:
No carcinogenic components	
US. OSHA Specifically Requ	ulated Substances (29 CFR 1910.1001-1050), as amended:
No carcinogenic components	
Germ Cell Mutagenicity:	
Cerm Cer matagementy.	No data available
Reproductive toxicity:	
Tricresyl phosphate	Suspected of damaging fertility. This material has been shown to impair fertility and cause adverse reproductive effects in rats an mice.
Specific Target Organ Toxic	city - Repeated Exposure:

Ecotoxicity

Fish Tricresyl phosphate

LC 50 (Rainbow Trout, 4 Days): 0.6 mg/l

Aquatic Invertebrates

Contaminated Packaging:	Container packaging may exhibit hazards.
Disposal considerations isposal instructions: Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Dispose of packaging or containers in accordance with local, regional, national and international regulations. Empty container contains product residue which may exhibit hazards of product.	
Other adverse effects Product:	Harmful to aquatic life with long lasting effects.
Mobility:	No data available
Partition Coefficient n-oct Tricresyl phosphate	anol / water (log Kow) Log Kow: 5.93 (Measured)
Bioaccumulative potential Bioconcentration Factor (BCF) No data available
Persistence and Degradability Biodegradation Tricresyl phosphate	OECD TG 301 D, 24.2 %, 28 d, Not readily degradable.
Toxicity to microorganism Tricresyl phosphate	LC 50 (Sludge, 0.1 Days): > 1,000 mg/l
Toxicity to Above-Ground	Organisms No data available
Toxicity to Terrestrial Plar	nts No data available
Sediment Toxicity	No data available
Toxicity to soil dwelling o	rganisms No data available
Toxicity to Aquatic Plants Tricresyl phosphate	EC 50 (Alga, 3 Days): 0.4042 mg/l
Tricresyl phosphate	EC 50 (Water flea (Daphnia magna), 2 d): 0.146 mg/l

14. Transport information

DOT

Not regulated.

IMDG

Not regulated.

ΙΑΤΑ

Not regulated.

Transport in bulk according to Annex II of MARPOL and the IBC Code

None known.

The DOT shipping information in this section is based on a bulk container. Please review the accompanying shipping papers for the correct shipping descriptions based the size of the package. Shipping descriptions may vary based on mode of transport, quantities, temperature of the material, package size, and/or origin and destination. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material. During transportation, steps must be taken to prevent load shifting or materials falling, and all relating legal statutes should be obeyed. Review classification requirements before shipping materials at elevated temperatures.

15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4)

None present or none present in regulated quantities. Superfund amendments and reauthorization act of 1986 (SARA)

SARA 311 Classifications

Reproductive toxicity

SARA 302 Extremely Hazardous Substance

None present or none present in regulated quantities.

SARA 304 Emergency Release Notification

None present or none present in regulated quantities.

SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65



This product may contain chemical(s) known to the state of California to cause cancer and/or birth defects. Additional information can be received upon request.

Inventory Status

Australia (AIIC)

All components are in compliance with chemical notification requirements in Australia.

Canada (DSL/NDSL)

All substances contained in this product are in compliance with the Canadian Environmental Protection Act and are present on the Domestic Substances List (DSL) or are exempt.

China (IECSC)

All components of this product are listed on the Inventory of Existing Chemical Substances in China.

European Union (REACh) To obtain information on the REACH compliance status of this product, please e-mail REACH@SDSInguiries.com. Great Britain (UK REACH) To obtain information on the UK REACH compliance status of this product, please e-mail REACH@SDSInguiries.com. Japan (ENCS) All components are in compliance with the Chemical Substances Control Law of Japan. Korea (ECL) All components are in compliance in Korea. New Zealand (NZIoC) All components are in compliance with chemical notification requirements in New Zealand. Philippines (PICCS) All components are in compliance with the Philippines Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990 (R.A. 6969). Switzerland (SWISS) All components are in compliance with the Environmentally Hazardous Substances Ordinance in Switzerland. Taiwan (TCSCA) All components of this product are listed on the Taiwan inventory. Turkey (KKDIK) To obtain information on the KKDIK compliance status of this product, please e-mail REACH@SDSInguiries.com. United States (TSCA) All substances contained in this product are listed on the TSCA inventory or are exempt.

The information that was used to confirm the compliance status of this product may deviate from the chemical information shown in Section 3.

16.Other information, including date of preparation or last revision

HMIS Hazard ID



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible; *Chronic health effect

NFPA Hazard ID		
	0 Flammability Health Reactivity Special hazard.	
Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible		
Issue Date:	12/28/2021	
Version #:	4.0	
Source of information:	Internal company data and other publically available resources.	
Further Information:	Contact supplier (see Section 1)	
Disclaimer:	As the conditions or methods of use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for any use of this product. Information contained herein is believed to be true and accurate but all statements or suggestions are made without warranty, expressed or implied, regarding accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof. Compliance with all applicable federal, state, and local regulations remains the responsibility of the user.	