

SAFETY DATA SHEET



SKYTRAK Friction Modifier

Section 1. Identification

GHS product identifier : Skytrak Friction Modifier
Synonyms : Friction Modifier
Product Code : 10726720 (4 oz)
8522043 (32 oz)

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

Recommended use : Lubricating Oil
Supplier Details : Como Lube & Supplies, Inc.
PO Box 16987
Duluth, MN 55802

Emergency telephone number : Technical Contact: 800-962-5417
National Poison Center: 800-222-1222, CHEMTREC 800-424-9300

Section 2. Hazard Identification

OSHA/HCS status : This fluid is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Classification of the substance or mixture : Acute Toxicity – Oral: Category 4
Skin corrosion/irritation: Category 1 Sub-category B
Serious eye damage/eye irritation: Category 1
Specific target organ toxicity (repeated exposure): Category 1

GHS Label elements



Hazard pictograms :

Signal word :

Hazard statements :

Danger
Harmful if swallowed
Causes severe skin burns and eye damage.
Causes damage to organs through prolonged or repeated exposure.

Precautionary statements

General

: Avoid contact with eyes, skin and clothing. May be harmful if swallowed. IF IN EYES: Rinse cautiously with water for several minutes. IF SWALLOWED: DO NOT induce vomiting. After handling, always wash hands thoroughly with soap and water. Keep out of reach of children.

Prevention

: Wash face, hands and any exposed skin thoroughly after handling Do not eat, drink or smoke when using this product Do not breathe dust/fume/gas/mist/vapors/spray Wear protective gloves/protective clothing/eye protection/face protection.

Response

: Not applicable.

Storage

: Store in dry place and/or in closed container. Store in accordance with all local, regional, national and international regulations.

Disposal

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

Hazards not otherwise classified : Not Classified

Section 3. Composition/information on ingredients

Substance/mixture : This product is a mixture. Health hazard information is based on its ingredients

Other means of Identification : Friction Modifier

Ingredient name	%	CAS number
Distillates (petroleum), hydrotreated light paraffinic	>80	64742-55-8
N-Tallow-1,3-Diaminopropane	10 -25	61791-55-7
Bis(2-ethylhexyl) phosphonate	2.5 – 10	3658-48-8
Bis(2-ethylhexyl) hydrogen phosphate	2.5 – 10	298-07-7
2-ethylhexyl dihydrogen phosphate	1 – 2.5	1070-03-7

Additional information : Highly refined mineral oils and additives. The highly refined mineral oil contains <3% (w/w) DMSO-extract, according to IP346

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

- General advice** : Do not get in eyes, on skin, or on clothing. Immediate medical attention is required. Do not breathe dust/fume/gas/mist/vapors/spray.
- Eye** : Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Seek immediate medical attention/advice.
- Inhalation** : IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician.
- Skin contact** : IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin
- Ingestion** : Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. DO NOT induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects : Gastrointestinal discomfort, Causes burns, blistering

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** : Treat symptomatically and supportively.
- Protection of first-aiders** : Use personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Specific hazards arising

- from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.
- Extinguishing media**
- Suitable extinguishing media** : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment: Use CO2, dry chemical, or foam, Water spray or fog, Cool containers / tanks with water spray.
- Unsuitable extinguishing media** : Do not use a solid water stream as it may scatter and spread fire.
- Hazardous thermal decomposition products** : Incomplete combustion and thermolysis produces potentially toxic gases such as carbon monoxide and carbon dioxide.
- 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 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. Put on appropriate personal protective equipment.
- 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 nonemergency 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. 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.
- Large spill** : 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

- Protective measures**
Advice on general occupational Hygiene
- : 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.

Bulk Storage Conditions: Maintain all storage tanks in accordance with applicable regulations. Use necessary controls to monitor tank inventories. Inspect all storage tanks on a periodic basis. Test tanks and associated piping for tightness. Maintain the automatic leak detection devices to assure proper working condition.

Section 8. Exposure controls/personal protection

Control parameters

- Occupational exposure limits** : None identified.

- Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

- 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, vapor controls, 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 glasses equipped with side shields are recommended as minimum protection in industrial settings. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: Splash goggles. 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 inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

- Hand protection** : Chemical-resistant gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

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	: Use a properly fitted, air-purifying or supplied-air respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Physical state	: Liquid.
Color	: Light brown.
Odor	: Strong petroleum odor.
pH	: Not available.
Boiling point	: > 148.9 °C / > 300 °F.
Flash point	: Open cup: 149 °C / 300 °F [Cleveland.]
Evaporation rate	: <1 (n-butyl acetate = 1)
Lower and upper explosive (flammable) limits	: Lower - Not available. Upper - Not available.
Auto-ignition temperature	: >260°C (>500°F)
Vapor pressure	: <0.13 kPa (<0.1 mm Hg) [room temperature]
Vapor density	: >1 [Air = 1]
Relative density	: 0.912
Density lbs/gal	: 7.25 lbs/gal
Gravity, °API	: 29.5
Viscosity	: Kinematic (40°C (104°F): 0.68 cm ² /s (68 cSt) Saybolt 315 SUS @100°F

Section 10. Stability and reactivity

Reactivity	: Not expected to be Explosive, Self-Reactive, Self-Heating, or an Organic Peroxide under US GHS Definition(s).
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions 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

Conclusion/Summary

: Distillates (petroleum), hydrotreated heavy paraffinic: Mineral oil mists derived from highly refined oils are reported to have low acute and sub-acute toxicities in animals. Effects from single and short-term repeated exposures to high concentrations of mineral oil mists well above applicable workplace exposure levels include lung inflammatory reaction, lipid granuloma formation and lipid pneumonia. In acute and sub-acute studies

involving exposures to lower concentrations of mineral oil mists at or near current work place exposure levels produced no significant toxicological effects.

Product/ingredient name	Result	Species	Dose
Highly refined base oil	LD50 Dermal	Rabbit/Rat	>2000 mg/kg
	LD50 Oral	Rat	>2000 mg/kg
N-Tallow-1,3-Diaminopropane 61791-55-7	LD50 Oral	Rat	300 mg/kg
Bis(2-ethylhexyl) phosphonate 3658-48-8	LD50 Dermal	Rabbit	= 4500 mg/kg
	LD50 Oral	Rat	= 11900 mg/kg
Bis(2-ethylhexyl) hydrogen phosphate 298-07-7	LD50 Dermal	Rabbit	= 1250 µL/kg
	LD50 Oral	Rat	= 4940 µL/kg
2-ethylhexyl dihydrogen phosphate 1070-03-7	LD50 Oral	Rat	= 3450 mg/kg

Irritation/Corrosion

Sensitization

- Skin** : None known.
- Eyes** : None known.
- Respiratory** : None known.

Mutagenicity

- Conclusion/Summary** : None known.

Carcinogenicity

- Conclusion/Summary** : None known.

Reproductive toxicity

- Conclusion/Summary** : None known.

Teratogenicity

- Conclusion/Summary** : No additional information.

Specific target organ toxicity (single exposure)

- Conclusion/Summary** : None known.

Specific target organ toxicity (repeated exposure)

- Conclusion/Summary** : Causes damage to organs through prolonged or repeated exposure if swallowed.

Aspiration hazard

- Conclusion/Summary** : None known.

Information on the likely routes of exposure

- Conclusion/Summary** : Dermal contact, Eye contact, Inhalation, Ingestion

Potential acute health effects

- Eye** : May result in permanent damage including blindness.
- Inhalation** : There is no data available for this product.
- Skin contact** : Corrosive.
- Ingestion** : Harmful if swallowed. Ingestion causes burns of the upper digestive and respiratory tracts.

Potential chronic health effects

- General** : Causes burns. May result in permanent damage including blindness.

Section 12. Ecological information

Toxicity

- Conclusion/Summary** : No special environmental measures are necessary.

Product/ingredient name	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
N-Tallow-1,3-Diaminopropane	0.1: 96 h Brachydanio rerio mg/L LC50 static	0.13: 48 h Daphnia magna mg/L EC50
Bis(2-ethylhexyl) hydrogen phosphate	20: 96 h Oncorhynchus mykiss mg/L LC50 static	80.3: 48 h Daphnia magna mg/L

Persistence and degradability

Conclusion/Summary

: The product is not readily biodegradable, but it can be degraded by micro-organisms, it is regarded as being inherently biodegradable.

Bioaccumulative potential

Conclusion/Summary

: No information available.

Mobility in soil

: The product is insoluble and floats on water. Is not likely mobile in the environment due its low water solubility.

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. 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

	DOT Classification	IMDG	IATA
UN number	UN1760.	UN1760.	IN1760.
UN proper shipping name	Corrosive liquid, n.o.s.	CORROSIVE LIQUID, N.O.S.	CORROSIVE LIQUID, N.O.S.
Transport hazard class(es)	8.	8.	8
Packaging group	II.	II.	II.
Description	UN1760, CORROSIVE LIQUID, N.O.S (N-TALLOW-1,3-DIAMINOPROPANE, BIS(2-ETHYLHEXYL) HYDROGEN PHOSPHATE), 8, II.	UN1760, CORROSIVE LIQUID, N.O.S (N-TALLOW-1,3-DIAMINOPROPANE, BIS(2-ETHYLHEXYL) HYDROGEN PHOSPHATE), 8, II.	UN1760, CORROSIVE LIQUID, N.O.S (N-TALLOW-1,3-DIAMINOPROPANE, BIS(2-ETHYLHEXYL) HYDROGEN PHOSPHATE), 8, II.
Emergency Response Guide Number	154	-	-
EmS No.	-	F-A, S-B	-
Special Provisions	-	274	-

Special precautions for user

: 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.

Transport in bulk according to
Annex II of MARPOL 73/78 and
IBC Code

: Not available.

Section 15. Regulatory information

U.S. Federal regulations

: This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

Clean Water Act (CWA) 311: This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

This material is classified as an oil under Section 311 of the Clean Water Act (CWA) and the Oil Pollution Act of 1990 (OPA). Discharges or spills which produce a visible sheen on waters of the United States, their adjoining shorelines, or into conduits leading to surface waters must be reported to the EPA's National Response Center at (800) 424-8802.

SARA 302/304

Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
Vinyl acetate	0 – 0.1	Yes.	-	-	-	-

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Not applicable.

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Mixture	100	No.	No.	No.	Yes.	Yes

SARA 313 : This product (does) contain toxic chemicals subject to the reporting requirements of SARA Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.

Product Name	CAS number	%
Zinc compounds	Mixture	0.032 as Zinc

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts

: None of the components are listed.

New York

: None of the components are listed.

New Jersey

: The following components are listed: Distillates (petroleum), hydrotreated heavy paraffinic.

Pennsylvania

: None of the components are listed.

California Prop. 65

: **WARNING:** This product contains less than 0.1% of a chemical known to the State of California to cause cancer.

WARNING: This product contains less than 0.1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

International regulations

International lists

- : **Australia inventory (AICS):** Not determined.
- China inventory (IECSC):** Not determined.
- Japan inventory:** Not determined.
- Korea inventory:** Not determined.
- Malaysia Inventory (EHS Register):** Not determined.
- Mexico – Grade:** Slight risk, Grade 1
- New Zealand Inventory of Chemicals (NZIoC):** Not determined.
- Philippines inventory (PICCS):** Not determined.
- Taiwan inventory (CSNN):** Not determined.

Canada inventory

- : This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

EU inventory

- : All components are listed or exempted.

WHMIS (Canada)

- : D2B Toxic materials
- E Corrosive material.

Section 16. Other information**National Fire Protection Association (U.S.A.)**

Health

Instability/Reactivity

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.

History

Date of revision / Supersedes : 08/31/2015 : 03/09/2012

Key to abbreviations

ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 GHS = Globally Harmonized System of Classification and Labeling of Chemicals
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogP_{ow} = logarithm of the octanol/water partition coefficient
 MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 UN = United Nations

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