SAFETY DATA SHEET



CalEster K

Section 1. Identification

GHS product identifier	: CalEster K
Product code	: 300407100000
Chemical name	: Synthetic Polyol Ester
Other means of identification	: Not available.
Product type	: Liquid.

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

Identified uses			
Industrial applications: Synthetic Polyol Ester			
Uses advised against	Reason		
None known.			

Supplier's details

: Calumet Refining, LLC 2780 Waterfront Pkwy E. Drive Suite 200 Indianapolis, IN 46214 USA Technical Services: 317-328-5660

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

1-800-424-9300 / International 1-703-527-3887

Section 2. Hazards identification

OSHA/HCS status	:	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.
Classification of the substance or mixture	1	Not classified.
		Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 100%
		Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 100%
GHS label elements		
Signal word	:	No signal word.
Hazard statements	:	No known significant effects or critical hazards.
Precautionary statements		
Prevention	1	Not applicable.
Response	1	Not applicable.
Storage	1	Not applicable.
Disposal	1	Not applicable.
Hazards not otherwise classified	:	None known.

Section 3. Composition/information on ingredients

Substance/mixture

- : Mixture
 - : Synthetic Polyol Ester

Other means of identification

Chemical name

- : Not available.
- Ingredient name%CAS numberSynthetic Polyol EsterProprietary-Synthetic Polyol EsterProprietary-Synthetic Polyol EsterProprietary-Synthetic Polyol EsterProprietary-

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

Eye contact	 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.
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Skin contact	 Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	: Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.

Most important symptoms/effects, acute and delayed		
Potential acute health effe	<u>cts</u>	
Eye contact	: No known significant effects or critical hazards.	
Inhalation	: No known significant effects or critical hazards.	
Skin contact	: No known significant effects or critical hazards.	
Ingestion	: No known significant effects or critical hazards.	
<u>Over-exposure signs/sym</u>	<u>otoms</u>	
Eye contact	: No specific data.	
Inhalation	: No specific data.	
Skin contact	: No specific data.	
Ingestion	: No specific data.	
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	: No specific treatment.	
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training.	

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media	
Suitable extinguishing media	: Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: Do not use water jet.
Specific hazards arising from the chemical	: In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products	: No specific data.
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 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			
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 non-emergency 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 co	nta	ainment 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	: Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene	: 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.

Section 7. Handling and storage

Conditions for safe storage,	1	Store in accordance with local regulations. Store in original container protected from
including any		direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials
incompatibilities		(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

Control parameters

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Occupational exposure limits

Ingredient name	Exposure limits
Synthetic Polyol Ester	None.
Synthetic Polyol Ester	None.
Synthetic Polyol Ester	None.

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Appropriate engineering controls		Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Environmental exposure controls	t c	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.
Individual protection measur	<u>res</u>	
Hygiene measures	e A N	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	a Q t	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.
Skin protection		
Hand protection	V	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.
Body protection	r	Personal protective equipment for the body should be selected based on the task being berformed and the risks involved and should be approved by a specialist before nandling this product.
Other skin protection	t	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	a r	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

<u>Appearance</u>	
Physical state	: Liquid. [Viscous liquid.]
Color	: Clear. Colorless to light yellow.
Odor	: Characteristic. Ester
Odor threshold	: Not available.

Date	of issue	Date of	revision

Section 9. Physical and chemical properties

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рН	Not available.	
Melting point	Not available.	
Boiling point	Not available.	
Flash point	Open cup: 260°C (500°F) [Cleveland.]	
Evaporation rate	Not available.	
Flammability (solid, gas)	Not available.	
Lower and upper explosive (flammable) limits	Not available.	
Vapor pressure	Not available.	
Vapor density	Not available.	
Relative density	0.97	
Solubility	Insoluble in the following materials: cold water and hot water.	
Solubility in water	Not available.	
Partition coefficient: n- octanol/water	Not available.	
Auto-ignition temperature	Not available.	
Decomposition temperature	Not available.	
Viscosity	Kinematic (40°C (104°F)): 0.68 cm²/s (68 cSt)	
Flow time (ISO 2431)	Not available.	
Pour point	<mark>≓</mark> 38°C (-36.4°F)	

Section 10. Stability and reactivity

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

Product/ingredient name	Result	Species	Dose	Exposure
Synthetic Polyol Ester	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
Synthetic Polyol Ester	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
Synthetic Polyol Ester	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
Synthetic Polyol Ester	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-

Irritation/Corrosion

Not available.

Sensitization

Section 11. Toxicological information

Not available.

Mutagenicity

Not available.

Carcinogenicity Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure) Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure	:	Not available.
Potential acute health effects		
Eye contact	:	No known significant effects or critical hazards.
Inhalation	:	No known significant effects or critical hazards.
Skin contact	:	No known significant effects or critical hazards.
Ingestion	:	No known significant effects or critical hazards.

Symptoms related to t	the physical, chemical and toxicological characteristics
Eye contact	: No specific data.
Inhalation	: No specific data.
Skin contact	: No specific data.
Ingestion	: No specific data.

Delayed and immediate effec	ts	and also chronic effects from short and long term exposure
Short term exposure		
Potential immediate effects	:	Not available.
Potential delayed effects	:	Not available.
Long term exposure		
Potential immediate effects	:	Not available.
Potential delayed effects	:	Not available.
Potential chronic health effe	ect	<u>s</u>
Not available.		
General	:	No known significant effects or critical hazards.
Carcinogenicity	:	No known significant effects or critical hazards.
Mutagenicity	:	No known significant effects or critical hazards.
Teratogenicity	:	No known significant effects or critical hazards.
Developmental effects	:	No known significant effects or critical hazards.

Section 11. Toxicological information

Fertility effects

: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition : Not available. coefficient (Koc)

Other adverse effects	: No known significant effects or critical hazards.
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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. 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.

RCRA classification : Not Regulated

Section 14. Transport information

	DOT Classification	TDG Classification	IMDG	ΙΑΤΑ
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.

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 : Not available. to Annex II of MARPOL and the IBC Code

Section 15. Regulatory information

U.S. Federal regulations	: TSCA 8(a) CDR Exempt/Partial exemption: Not determined
Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)	: Not listed
Clean Air Act Section 602 Class I Substances	: Not listed
Clean Air Act Section 602 Class II Substances	: Not listed
DEA List I Chemicals (Precursor Chemicals)	: Not listed
DEA List II Chemicals (Essential Chemicals)	: Not listed
SARA 302/304	
Composition/information	on ingredients
No products were found.	
SARA 304 RQ	: Not applicable.
SARA 311/312	
Classification	: Not applicable.
Composition/information	on ingredients
No products were found.	
State regulations	
Massachusetts	: None of the components are listed.
New York	: None of the components are listed.
New Jersey	: None of the components are listed.
Pennsylvania	: None of the components are listed.
California Prop. 65	
This product does not re	quire a Safe Harbor warning under California Prop. 65.
International lists	
National inventory	
Australia	: Not determined.
Canada	: Not determined.
China	: Not determined.
Europe	Not determined.
Japan	: Japan inventory (ENCS): Not determined. Japan inventory (ISHL): Not determined.
Malaysia	: Not determined.
New Zealand	: Not determined.
Philippines	: Not determined.
Republic of Korea	: Not determined.
Taiwan	: Not determined.
Thailand	: Not determined.
Turkey	: Not determined.
United States	: All components are listed or exempted.
Viet Nam	: Not determined.

Section 16. Other information

Procedure used to derive the classification

Classification		Justification	
Not classified.			
<u>History</u>			
Date of issue/Date of revision	: 08/16/2018		
Version	: 3.01		
Key to abbreviations	BCF = Bioconcentration Fa GHS = Globally Harmonize IATA = International Air Tra IBC = International Air Co IMDG = International Marit LogPow = logarithm of the MARPOL = International C	ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = International Air Transport Association IBC = 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)	

V Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.