PACIFIC OLEO

CONTROLLED

SAFETY DATA SHEET

According to GHS 3rd Revision, Annex IV

		SDS no.: 0004
Group of Chemicals:	Fatty Acids	Updated: June 2012
Chemicals/Substance Name:	Lauric Acid/ Dodecanoic Acid	Revision: 5

SECTION 1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF COMPANY

Commercial Name : KORTACID 1299
Description : Lauric Acid (99%min)
CAS Number : 143-07-7
EINECS Number : 205-582-1
Recommended uses : Raw material for manufacturing oleochemical derivatives

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

Application of the substance / the preparation

Additive
Chemical intermediate
Tanning agents
Lubricant
Intermediate
Laboratory chemicals

Company name:

Pacific Oleochemicals Sdn Bhd (64175 – U)
Plo 285, Jalan Pekeliling timur
PO Box 143, 81707 Pasir Gudang
Johor Darul Takzim, Malaysia
TEL +60-7-251 8000 FAX +60-7-251 1066

Further information obtainable from:

poc@pacificoleo.com

Emergency telephone number:

TEL +60-7-251 8000

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008

GHS05 corrosion

Health hazard: Eye Damage1, H318 (Causes serious eye damage)
Physical-chemical hazard: No classification
Environment hazard: No classification

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Xi; Irritant
R41: risk of serious damage to eyes.
Information concerning particular hazards for human and environment: Not applicable

Labeling according to Regulation (EC) No 1272/2008
The substance is classified and labeled according to the CLP regulation

Hazard pictograms


GHS05

Signal Word: Danger

Hazard-determining components of labeling: Lauric Acid

Hazard statements : H318 (Causes serious eye damage)

Precautionary Statement

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read label before use.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302 P351 P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/physician.

Other hazards

Result of PBT and vPvB assessment

PBT : Not applicable

vPvB : Not applicable

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Molecular Formula: $C_{12}H_{24}O_2$
CAS Number: 143-07-7
EINECS Number: 205-582-1

Dangerous Components:			
CAS: 334-48-5 EINECS: 206-376-4	Decanoic Acid	Xi R36/38 Skin Irrit. 2, H315: Eye Irrit. 2, H319	<5
CAS: 143-07-7 EINECS: 205-582-1	Lauric Acid	Xi R41 Eye Dam. 1, H318	80-100
CAS: 544-63-8 EINECS: 208-875-2	Myristic Acid	No Classification	<5

SECTION 4. FIRST-AID MEASURES

When inhaled:

Remove source of contamination or have victim move to fresh air
If suffocation is serious, obtain medical attention immediately

When in contact with skin:

Take off immediately all contaminated clothing. Rinse skin with plenty of water.
Obtain medical attention if necessary.

When in contact with eyes:

Immediately flush the contaminated eye with running water for several minutes.
Obtain medical attention if necessary.

When ingested:

If swallowed, do not induce vomiting. Rinse mouth, drink plenty of water.
Obtain medical attention if necessary. Never give anything by mouth to an unconscious person.

Information for doctor:

Most important symptoms and effects, both acute and delayed

Irritation and corrosion
Breathing difficulty
Dizziness
Coughing
Headache

Indication of any immediate medical attention and special treatment needed

No further relevant information available

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:

Form. Dry powder or carbon dioxide

Extinguishing media which must not be used for safety reasons:

Water jet

Specific hazards in the event of fire:

Thermal decomposition may emit toxic fumes of carbon monoxide.

Special hazards arising from the substance or mixture

Under certain fire conditions, traces of other toxic gases cannot be excluded.

Special protection equipment and precautions for fire-fighters:

In the event of fire, wear full protective clothing & NIOSH approved self-contained breathing apparatus with full face piece operated in the pressure mode.

SECTION 6. ACCIDENT RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:
Wear appropriate respirator if a mist or vapour is generated.
Wear suitable glove and eye/face protection.

Environmental precautions:
Minimize contamination of drains, surface and ground water.

Methods and materials for containment and cleaning up:
For liquid spills, absorb with sand or other non-combustible absorbent material and transfer material to appropriate container for disposal. Can also allow spillage to solidify, and then shovel into container. Wash site with soda ash. Wipe clean.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:
Avoid contact with eyes, skin and inhalation of vapour or mist. Use gloves and wear goggles when handling.

Conditions for safe storage, including any incompatibilities:
Keep container tightly closed in a cool and dry place.
Store in acid resistant vessels such as stainless or steel coated with resin lining.
In bulk, store at about 10 deg C above melting point or ambient. Exposure to ultraviolet light and sunlight must be minimised to prevent quality loss.
Do not store near possible sources of ignition.

SECTION 8. EXPOSURE CONTROLS /PERSONAL PROTECTION

Control parameters (Occupational exposure limit value):
As the leading health effect for lauric acid is risk of serious damage to eyes, a local effect, concurrent exposure via various routes of exposure is considered not relevant for both workers and consumers.

Ingredients with limit values that require monitoring at the workplace: Not required

DNELs		
143-07-7 Lauric acid		
Dermal Inhalative	DNEL DNEL	10mg/kg bw/d (workers) 17,632 mg/m^3 (workers)
PNECs		
143-07-7 Lauric acid		
LC50 (acute) (96h) NOEC (chronic) (21d)		5mg/L (fish) (OECD 203; CAS#143-07-7; C12 0.47mg/L (daphnia) (OECD 211; CAS#143-07-7)

Appropriate engineering controls:

Normal ventilation for standard manufacturing procedures is generally adequate. Avoid breathing (heated) vapors. Avoid eye and skin contact.

Personal protective equipment (PPE):

Eye and face protection: Goggles or face shield with goggles

Skin protection : Suitable protective gloves.
Respiratory protection : None required for ambient temperature. If a mist or vapour is generated, wear appropriate NIOSH approved respirator

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties
General Information

Appearance	White solid
Odour	Faint fatty Odour.
Odour threshold	Not determined
pH	Not applicable
Melting point	ca. 42-44 °C
Initial boiling point and boiling range	299 °C @ 760mm Hg
Auto-ignition temperature	ca. >250 °C
Flash point (Open cup)	ca. 160-165°C (ISO 2592 Open Cup)
Flammability (solid, gas)	Not Flammable (EU method A.10.)
Vapor pressure 25°C	ca. 0, 0000213 hPa @ 2.13E-3
Dissociation constant (pKa)	5.3@20°C
Water solubility, mg/L	4.81 @25°C
Surface tension	26.6mN @70°C
Partition coefficient (log K_{ow})	4.6
Viscosity @ 50 °C	7.3mPas
Density @ 75 °C	0.85 g/ml
Molecular weight/mol	200.32
Solubility in/Miscibility with water at 25°C	0,00481 g/l
Segregation coefficient (n-octanol/water)	4, 6 log Pow

SECTION 10. STABILITY AND REACTIVITY

Reactivity: Vapour mixes readily with air. Reacts with strong oxidants

Chemical stability: Stable under normal operation conditions

Possibility of hazardous reactions: None known

Conditions to avoid: Avoid extreme heat, cold and direct fire

Incompatible materials: Avoid strong oxidizing agents

Hazardous decomposition products:
Product does not decompose up to 240°C. Thermal decomposition or burning may produce carbon monoxide and o/ carbon dioxide.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity:

Ld/lc50 values relevant for classification:		
143-07-7 Lauric acid		
Oral	LD50	> 5000 mg/kg bw (rat) (OECD 401, CAS#143-07-7; C12)
Dermal	LD50	> 2000 mg/kg bw (rabbit) (OECD 434, CAS#57-11-4; C18)

Skin corrosion/irritation:
Not irritating

Serious eye damage/irritation:
Irritating

Respiratory or skin sensitization:
Skin: Not sensitizing

Repeated dose toxicity		
143-07-7 Lauric acid		
Oral	NOAEL (subchronic)	1000 mg/kg bw/d (rat) (OECD 422; CAS#112-85-6; C22)

Genetic toxicity in vitro in bacteria:
Weight of evidence negative

Genetic toxicity in vitro mammalian:
Weight of evidence negative

Reproductive toxicity:
No data available

CMR effects (carcinogenetic, mutagenicity and toxicity for reproduction)
Carcinogenetic: No further relevant information available.
Mutagenicity: Negative

SECTION 12. ECOLOGICAL INFORMATION

Aquatic Toxicity:

143-07-7 Lauric Acid
Acute daphnia toxicity: EC50 3.6mg/L (48h)
(OECD 202; CAS#143-07-7; C12)

Persistence and degradability:
Easily biodegradable CAS# 143-67-7 (C12): BCF = 225 L/kg

Bioaccumulative potential:
Does not accumulate in organisms

Mobility in soil:
CAS# 334-48-5 (C10); Koc 261.8
CAS# 143-07-7 (C12); Koc 501.3

Additional ecological information:
General notes:
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal method:
Observe all federal, state and local environmental regulation and dispose according to the regulation.

SECTION 14. TRANSPORT INFORMATION

UN Number: None

UN Proper Shipping Name: None

UN "Model Regulation"
Special precautions for user: not applicable

Transport Hazard Class:
Not hazardous according to RID/ADR, GGVS/GGVE, ADNR, IMDG, ICAO-TI/IATA-DGR.

Packing Group: None

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Product name:
Fatty acids, C12+
Environmental Hazard:
Marine pollutant (Yes/No): No
MARPOL Annex II: Category Y
Ship type: 2

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or Mixture

National regulations:

Other regulations, limitations and prohibitive regulations

Positive Country Substance Listing:
USA (TSCA), Canada (DSL), Europe (EINECS), Australia (AICS), Korea (ECL), China (IECSC), Philippines (PICCS), New Zealand (NZIOC).
Note: The Substance name and CAS numbers which are used for this product in the stated inventories may deviate from the information listed in Section 3.

Chemical safety assessment:

A Chemical Safety Assessment has been carried out.

This product has to be classified as irritant to eye (Eye Cat.1) and does not fulfil the PBT/vPvB criteria.

SECTION 16. OTHER INFORMATION

The SDS has been reformatted and updated in accordance to (GHS) guidelines. This information is correct to the best of our knowledge and to be used as reference and guidance purposes only. No responsibilities are accepted for accuracy of information contained in the text.

Relevant phrases

H318	Causes serious eye damage
H319	Causes serious eye irritation
R41	Risk of serious damage to eyes

Department issuing MSDS & Contact: poc@pacificoleo.com

Abbreviations and acronyms:

BCF:	Bioconcentration Factor
NOAEL:	No Observed Adverse Effect Level
ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road
RID:	Regulations Concerning the International Transport of Dangerous Goods by Rail
IMDG:	International Maritime Code for Dangerous Goods
IATA:	International Air Transport Association
IATA-DGR:	Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO:	International civil Aviation Organization
ICAO-TI:	Technical Instructions by the "International civil Aviation Organization" (ICAO)
GHS:	Globally Harmonized System of Classification and Labelling of Chemicals
EINECS:	European Inventory of Existing Commercial Chemical Substances
CAS:	Chemical Abstracts Service (division of the American Chemical Society)
DNEL:	Derived No-Effect Level (REACH)
PNEC:	Predicted No-Effect Concentration (REACH)
LC50:	Lethal concentration, 50%
LD50:	Lethal dose, 50%

Source

Chemicals Safety Report (FAC IUCLID Database)

Data compared to the previous version altered

Revision information: Rev 5 (change in composition)
Date of this revision: 30/06/2012
Revision summary: Updated according to Regulation (EU) no: 453/2010 and 1272/2008