



**Industrial
Oleochemical
Products**

SAFETY DATA SHEET

317 Chamberlain Road, Jacobs, South Africa, 4026
Tel: +27 (0) 31 461 8680 Fax : +27 (0) 31 461 3743
Website: www.oleo.co.za Email: info@oleo.co.za

Oleotall R2-2

Customized tall oil fatty acid

Oleotall R2-2 is a customized blend of tall oil fatty acids from renewable crop sources to define a product of nominally two percent rosin content and which provides good drying properties to non-yellowing air-dry alkyd resins and varnishes. Oleotall R2-2 can be used as a better substitute for soyabean oils and fatty acids.

1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER:

Product name:	Oleotall R2-2
Product identifier/synonyms:	Customized tall oil fatty acids CAS # 61790-12-3 EC # 232-304-6
Product description:	Tall oil fatty acids with high polyunsaturated fatty acids
Intended use:	Industrial uses of fatty acids
Application of the substance / the mixture	Industrial uses of fatty acids Alkyd manufacture Fatty acid derivatives
Manufacturer:	Industrial Oleochemical Products, (Pty) Ltd., Jacobs, 4052, KZN, Tel: +27-(0)31-4618680, Fax:: +27-(0)31-461-3743 info@oleo.co.za
Emergency telephone number:	031-461-8721 (Monday-Friday 08.00 to 16.30hr) 031-461-8680 (after normal working hours) 071-483-7688 (medical emergencies)



Oleotall R2-2

2. HAZARD IDENTIFICATION

This substance is not classified according to South African National Standard SANS 10234:2007, Globally Harmonized System of classification and labelling of chemicals (GHS). This substance is not classified in the Annex I of Directive 67/548/ (Index # 650-015-00-7) according to ESIS (European Chemical Substances Information System).

Flammability:

Hazard category	Criteria
0	Flash point (COC) >200°C

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HAZARD IDENTIFICATION: (continuation from page 1)

Classification of the substance or mixture	The substance is not classified according to the Global Harmonized System (GHS)
Classification according to Directive 67/548/EEC or Directive 1999/45/EC Information concerning particular hazards for human and environment CAUTION!	
POTENTIAL HEALTH EFFECTS – (Liquid product at ambient temperatures)	Not classified
GENERAL HYGIENIC PRACTICES	Avoid contact with eyes, skin, and clothing. Avoid breathing dust, vapours or mist. Handle in areas with adequate ventilation. Refer to SDS Section 8, Exposure Controls / Personal Protection, for further information.
Label elements (GHS label elements) The substance is classified and labelled according to the Global Harmonized System (GHS)	
Hazard pictograms	Void
Signal word	Void
Hazard statements	Void

PRECAUTIONARY STATEMENTS

P202	Do not handle until all safety precautions have been read and understood
P210	Keep away from heat / sparks / open flames / hot surfaces – NO SMOKING
P234	Keep only in original packaging
P261	Avoid breathing fumes/ gas/mist / vapours/ spray
P262	Do not get in eyes, on skin, or on clothing
P264	Wash thoroughly after handling
P270	Do not eat, drink or smoke when using this product
P280	Wear protective gloves / eye protection
P 301 + P312	If swallowed: call a doctor if you feel unwell
P301 + P330 + P331	If swallowed: Rinse mouth. DO NOT induce vomiting
P302 + P352	If on skin: Wash with plenty of soap and water
P304 + P312	IF INHALED: Call a doctor if you feel unwell
P304 + P341	If inhaled: if breathing is difficult, remove person to fresh air and keep comfortable for breathing (continues on page 3)

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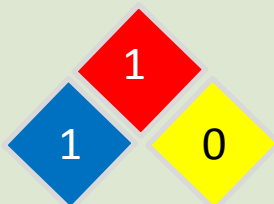
Oleotall R2-2 - Customized tall oil fatty acid

HAZARD IDENTIFICATION: (Continuation from page 2)

PRECAUTIONARY STATEMENTS

P305 + P351 + P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do, continue rinsing.
P314	Get medical advice / attention if you feel unwell
P333 + P313	If skin irritation or rash occurs: get medical advice / attention
P363	Wash contaminated clothing before reuse
P402 + P404	Store in a dry place. Store in a closed packaging
P403 + P233	Store in a well ventilated place. Keep packaging tightly closed
P501	Dispose of contents / packaging in accordance with local / regional / national/ international regulations

CLASSIFICATION SYSTEM : NFPA RATINGS (scale 0- 4)



HEALTH =1

FIRE = 1

REACTIVITY = 0

HMIS RATINGS (scale 0 – 4)

HEALTH 1

FIRE 1

REACTIVITY 0

HEALTH = 1

FIRE = 1

REACTIVITY = 0

Other Hazards

Dispose of waste and residues in accordance with local authority requirements.
After prolonged contact with highly porous materials, this product may spontaneously combust

3. COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL CHARACTERISATION: SUBSTANCE

CAS number 61790-12-3

CAS number description Tall oil fatty acids

EC number 232-304-6

Additional information

This product is not classified as hazardous under OSHA regulations, however, this SDS contains valuable information important to the safe handling and proper use of the product.

This SDS should be retained and available for employees and other users / handlers of this product. This product is shipped and delivered as an ambient temperature liquid.

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3. COMPOSITION / INFORMATION ON INGREDIENTS

(continuation from page 3)

Additional information	If this product is heated or used at temperatures sufficient to produce smoke or fumes, refer to SDS Section 8, Exposure controls / Personal Protection
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4. FIRST-AID MEASURES

DESCRIPTION OF FIRST AID MEASURES

After inhalation	Remove to fresh air. Get medical attention. Get immediate medical attention if symptoms develop or persist. See Note to Medical Doctor below.
After skin contact	Wash off with soap water. Get immediate medical attention if irritation develops or persist. See Note to Medical Doctor below.
After eye contact	HOT LIQUID product: Cool burns with plenty of low pressure water. Get immediate medical attention. LIQUID product at ambient temperature: Remove contact lenses. Hold eyelids apart. Immediately flush eyes with plenty of low pressure water for at least 15 minutes. Get medial attention if irritation persists.
After swallowing	Not an ingestion hazard under anticipated conditions of use. For accidental ingestion: DO NOT induce vomiting. Get immediate medical attention.

4. FIRST-AID MEASURES

INFORMATION FOR MEDICAL DOCTOR

PRODUCT	This product contains fatty acids and lesser amount of rosin or a rosin derivative. Rosin and some of its derivatives have been reported to cause an allergic skin reaction (sensitisation) in susceptible individuals after repeated or prolonged skin contact. Smoke or fumes generated by heating product may lead to respiratory sensitisation (asthma) in susceptible individuals.
Most important symptoms and effects, both acute and delayed	No further relevant information available
Indication of any immediate medical attention and special treatment needed	No further relevant information available.

5. FIRE FIGHTING MEASURES

Extinguishing media

Suitable extinguishing agents	Water spray, dry chemical, foam, carbon dioxide or clean extinguishing agents may be used on fires involving this product
Special hazards arising from the substance or mixture	If heated to combustion, the following substances may be formed: Carbon monoxide (CO); Carbon Dioxide (CO ₂); Carboxylic acids; Smoke (continues on page 5)

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Advise for fire-fighters

Protective equipment Wear self-contained breathing apparatus pressure-demand. MSHA/NIOSH approved (or equivalent) and full protective gear when fighting fires involving this product.

Apply water to **HOT LIQUID** product, fires from a safe, protected location to avoid body contact with hot rosin.

Cool packaging with water to prevent rupture.

Reference to other sections

See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment
See Section 13 for disposal information

7. HANDLING AND STORAGE

Precautions for safe handling

For **HOT LIQUID product**: Use personal protective equipment as indicated in Section 8: Exposure Controls / Personal Protection

Information about protection against explosions and fires

No special measures required

Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles

Store in cool, dry area

Keep container closed when not in use

Information about storage in one common storage facility

Not required

Further information about storage conditions

None

Specific end use(s)

No further information available

(continues on page 6)

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. For personal protection, see Section 8 of the SDS

Environmental precautions

Do not allow to enter sewers / surface or ground water

Methods and material for containment and cleaning up

For small spills: Add absorbent, sweep up, and dispose properly
For large spills: Dike to contain and pump into drums for use or disposal

In case of accidental spill or release, refer to Section 8, Personal Protective Equipment and General Hygiene Practices
Absorb with liquid binding material (sand, diatomite, vermiculite, Universal binders)

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Additional information about design of technical systems

Eyewash fountains and safety showers should be easily accessible.

If user operations generate fumes: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

Discharge from the ventilation system should comply with applicable air pollution control regulations.

Eliminate ignition sources and prevent build up of static electrical charges.

Completely isolate and thoroughly clean all equipment, piping, or vessels before beginning maintenance or repairs.

Keep area clean. Product will burn

Occupational exposure limits

Components with limit values that require monitoring at the workplace

US-OSHA
Tall oil fatty acids (61790-12-3)
Type : TWA Value:5 mg/M³
Form: Oil Mist; Respirable

Components with limit values that require monitoring at the workplace

ACGIH
Tall oil fatty acids (61790-12-3)
Type : STEL Value:10 mg/M³
Form: Oil Mist; Respirable

Type : TWA Value:5 mg/M³
Form: Oil Mist; Respirable

Breathing equipment

Appropriate respiratory protection is required when exposure to airborne contaminants may exceed acceptable limits. Respirators should be selected and used in accordance with OSHA, subpart 1 (29 CFR 1910.134) and manufacturer's recommendations

Protection of hands

Impervious gloves
The glove material has to be impermeable and resistant to the product / the substance / the preparation.
Selection of the glove material should be based on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer

Penetration time of glove material


The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection

Safety glasses
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Body protection	Appropriate protective clothing Personnel exposed to HOT LIQUID material should wear protective clothing that provides protection against thermal burns.
Body protection	Required Protective Equipment: 1, Long-sleeved protective shirt, long pants and work shoes; 2, Hard hat and face shield; 3, Long-cuff gloves extending beyond wrist; 4, Lined rain suit with protective hood or shoulder shroud or 5, Full aluminized or thermal suit with hood.
	

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties :

General information

Appearance Form	liquid at ambient temperatures
Appearance colour	yellow
Odour	Mild
Specific gravity	0.91 g/ml
Vapour density	Heavier than air
Flash Point	> 200 (°C) (Closed cup)
Danger of explosion	Product does not present an explosive hazard
Bulk density	Not determined
Solubility in / Miscibility with water	12.6 mg/L at 20°C
Partition coefficient (n-octanol/water)	4.9 – 6 at 30°C
Other information	No further relevant information available

10. STABILITY AND REACTIVITY

Reactivity and Chemical Stability

Thermal decomposition / conditions to be avoided	Stable under recommended handling and storage conditions
Possibility of hazardous reactions	Not anticipated under normal or recommended handling and storage
Conditions to avoid	No further information available
Incompatible materials	None known
Hazardous decomposition products	Upon decomposition this product emits acrid dense smoke with carbon dioxide, carbon monoxide, water and other products of combustion

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity

LD/LC50 values that are relevant for classification

Oral LD50	Albino Sprague-Dawley test on similar products: >10 000 mg/kg, 14 days at this dose, no death occurred
Dermal LD50	Albino rabbit – on similar products: >2000 mg/kg, 14 days at this dose, no death occurred. <small>Estimates product may be based on additional components data not shown</small>

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful
Skin contact	No adverse effects due to skin contact are expected May cause temporary irritation (continues on page 8)

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11. TOXICOLOGICAL INFORMATION

Eye contact	Direct contact with eyes may cause temporary irritation Similar products test data: Draize test: No eye irritation Results: Negative Species : Albino rabbit Organ: Eye Test Duration: 7 days Observation Period: 7 days
Respiratory or skin sensitization	No data available on respiratory sensitization. This product is not expected to cause skin sensitization
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA
Additional toxicological information IARC (International Agency for Research on Cancer: Substance is not listed	Carcinogenic categories Substance is not listed
NTP (National Toxicology Program)	Substance is not listed
OSHA-Ca (Occupational Safety & Health Administration)	Substance is not listed
Chronic effects	Prolonged inhalation may be harmful

12. ECOLOGICAL INFORMATION

Toxicity	
Aquatic toxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Data on similar products	
EC50 Bacteria (Pseudomonas putida)	>10 000 mg/L, 16 hrs
Aquatic Algae EL50 (green algae - (selenastrum capricomutum)	>1000 mg/L, 72 hr growth rate; OECD 201
Aquatic Crustacea EL50 (water flea – Daphnia magna)	>1000 mg/l, 48 hr OECD 202
Aquatic Fish LL50 (zebra danio – danio rerio)	>10 000 mg/l, 96 hr
Persistence and degradability	The product is biodegradable
Biodegradability Percent degradation (aerobic biodegradation) Tall oil fatty acids	88 – 100% CO2 Evolution Test Species: Activated sewage sludge Test duration: 28 days (continues on page 9)

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12. ECOLOGICAL INFORMATION

Behaviour in environmental systems

Bioaccumulative potential	No further relevant information available
Mobility in soil	No further relevant information available
General Notes	Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Other adverse effects	No other adverse environmental effects are expected from this component.

13. DISPOSAL CONSIDERATIONS

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site
Local disposal regulations	Dispose in accordance with all applicable regulations
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions)
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. TRANSPORTATION INFORMATION

UN-Number DOT, ADR, DAN, IMDG, IATA	Void
UN proper shipping name DOT, ADR, ADN, IMDG, IATA	Void
Transport hazard class(es) DOT, ADR, ADN, IMDG, IATA	Void
Packaging group DOT, ADR, IMDG, IATA	Void
Environmental hazards: Marine pollutant	No
Special precautions for user	Not applicable
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable
UN "Model Regulation":	-


15. REGULATORY INFORMATION

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

SARA Section 302 (extremely hazardous substances)	Substance is not listed
SARA 304 Emergency release notification	Not regulated
SARA 311/312 Hazardous chemical	No
SARA 313 (TRI reporting)	Not regulated
TSCA (Toxic Substances Control Act)	Substance is listed
Proposition 65 Chemicals known to cause cancer	Substance not listed
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	Not listed
Chemicals known to cause reproductive toxicity for females	Substance is not listed
Chemicals known to cause reproductive toxicity for males	Substance is not listed
Chemicals known to cause developmental toxicity	Substance is not listed (continues on page 10)

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Carcinogenic categories EPA (Environmental Protection Agency)	Substance is not listed						
TLV (Threshold Limit Value established by ACGIH)	Substance is not listed						
NIOSH-Ca (National Institute for Occupational Safety and Health)	Substance is not listed						
Canadian Domestic Substances List (DSL)	Substance is not listed						
GHS label elements	HEALTH = 1 FIRE = 1 REACTIVITY = 0						
							
CLASSIFICATION SYSTEM : NFPA RATINGS (scale 0- 4)							
<table border="1" style="width: 100%;"> <tr> <td style="background-color: #0056b3; color: white;">HEALTH</td> <td style="text-align: right; color: white;">1</td> </tr> <tr> <td style="background-color: #ff0000; color: white;">FIRE</td> <td style="text-align: right; color: white;">1</td> </tr> <tr> <td style="background-color: #ffff00; color: black;">REACTIVITY</td> <td style="text-align: right; color: black;">0</td> </tr> </table>	HEALTH	1	FIRE	1	REACTIVITY	0	HEALTH = 1 FIRE = 1 REACTIVITY = 0
HEALTH	1						
FIRE	1						
REACTIVITY	0						
Signal word	Warning						
Hazard statements	Void						
PRECAUTIONARY STATEMENTS							
P202	Do not handle until all safety precautions have been read and understood						

P210	Keep away from heat / sparks / open flames / hot surfaces – NO SMOKING
P234	Keep only in original packaging
P261	Avoid breathing fume/ gas/mist / vapours/ spray
P262	Do not get in eyes, on skin, or on clothing
P264	Wash thoroughly after handling
P270	Do not eat, drink or smoke when using this product
P280	Wear protective gloves / eye protection
P284	In case of inadequate ventilation wear respiratory protection
P 301 + P312	If swallowed: call a doctor if you feel unwell
P301 + P330 + P331	If swallowed: Rinse mouth. DO NOT induce vomiting
P302 + P352	If on skin: Wash with plenty of soap and water
P304 + P312	IF INHALED: Call a doctor if you feel unwell (continues on page 11)

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15. REGULATORY INFORMATION

P304 + P341

If inhaled: if breathing is difficult, remove person to fresh air and keep comfortable for breathing

P305 + P351 + P338

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do, continue rinsing.

P314

Get medical advice / attention if you feel unwell

P333 + P313

If skin irritation or rash occurs: get medical advice / attention

P363

Wash contaminated clothing before reuse

P402 + P404

Store in a dry place. Store in a closed packaging

P403 + P233

Store in a well ventilated place. Keep packaging tightly closed

P501

Dispose of contents / packaging in accordance with local / regional / national/ international regulations

Chemical safety assessment

A chemical safety assessment has not been carried out

16. OTHER INFORMATION

DISCLAIMER:

To the best of our knowledge of this substance and on current EC and international regulations, the information contained herein is accurate. However, neither the above-named supplier nor any of its subsidiaries or agents assumes liability whatsoever for the accuracy or completeness of the information contained herein.

Date of preparation:

25 August 2015

Date of previous issue:

None

Version:

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Contact

info@oleo.co.za

Department issuing SDSTechnical Department
(Industrial Oleochemical
Products (IOP))