

# **ROYCO LANDING GEAR FLUID YELLOW**

Version Revision Date: SDS Number: Date of last issue: 02/04/2020 1.9 03/26/2020 400000001798 Date of first issue: 12/05/2014

#### **SECTION 1. IDENTIFICATION**

Product name: ROYCO LANDING GEAR FLUID YELLOW

LANDING GEAR FLUID

Product Use Description: Lubricant

Synonyms: Synthetic Lubricant Formulation

Company: <u>Manufacturer</u>

Anderol Specialty Lubricants, a division of Lanxess Solutions US Inc.

215 Merry Lane East Hanover, NJ

07936

United States of America (USA)

Telephone: +1 203-573-4596, Toll Free: +1 888-263-3765

Emergency telephone num-

ber:

CHEMTREC

(24 hours) 800-424-9300

For additional emergency telephone numbers see section 16 of the Safety

Data Sheet.

Prepared by Product Safety Department

(US) +1 866-430-2775

MSDSRequest@lanxess.com

Recommended use of the chemical and restrictions on use

Recommended use : Lubricant

### **SECTION 2. HAZARDS IDENTIFICATION**

GHS classification in accordance with 29 CFR 1910.1200

Skin irritation : Category 2

Eye irritation : Category 2A

Aspiration hazard : Category 1

Short-term (acute) aquatic

hazard

Category 2

Long-term (chronic) aquatic

hazard

Category 2

**GHS** label elements



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Hazard pictograms







Signal word : Danger

Hazard statements : H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements : Prevention:

P264 Wash skin thoroughly after handling. P273 Avoid release to the environment.

P280 Wear protective gloves/ eye protection/ face protection.

Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON

CENTER/ doctor.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy

to do. Continue rinsing.

P331 Do NOT induce vomiting.

P332 + P313 If skin irritation occurs: Get medical advice/ atten-

tion.

P337 + P313 If eye irritation persists: Get medical advice/ atten-

tion.

P362 Take off contaminated clothing and wash before reuse.

P391 Collect spillage.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste dis-

posal plant.

Other hazards

None known.

### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

### **Hazardous components**

Chemical name	CAS-No.	Concentration (% w/w)
Distillates (petroleum), hydrotreated light naphthenic	64742-53-6	>= 50 - < 70
Distillates (petroleum), hydrotreated middle	64742-46-7	>= 10 - < 20
Distillates (petroleum), hydrotreated light	64742-47-8	>= 5 - < 10
Phosphorodithioic acid, mixed O.O-bis(iso-	68457-79-4	>= 1 - < 5



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Bu and pentyl) esters, zinc salts		
Phenol, isobutylenated, phosphate [Tri-	68937-40-6	>= 0.1 - < 1
phenyl phosphate > 25%]		
2,6-di-tert-butyl-p-cresol	128-37-0	>= 0.1 - < 1

Actual concentration is withheld as a trade secret.

### **SECTION 4. FIRST AID MEASURES**

If inhaled : If inhaled

Move to fresh air.

If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

In case of bluish discolouration (lips, ear lobes, fingernails),

give oxygen as quickly as possible. If symptoms persist, call a physician.

In case of skin contact : In case of skin contact

Wash off with soap and water.

Remove contaminated clothing and shoes. Wash contaminated clothing before re-use.

Get medical attention if irritation develops and persists.

In case of eye contact : In case of eye contact

Rinse thoroughly with plenty of water, also under the eyelids.

If eye irritation persists, consult a specialist.

If swallowed, DO NOT induce vomiting.

Consult a physician if necessary.

Most important symptoms and effects, both acute and

delayed

Aspiration may cause pulmonary oedema and pneumonitis.

No information available.

Protection of first-aiders : First Aid responders should pay attention to self-protection

and use the recommended protective clothing

If potential for exposure exists refer to Section 8 for specific

personal protective equipment.

Notes to physician : The first aid procedure should be established in consultation

with the doctor responsible for industrial medicine.

#### **SECTION 5. FIREFIGHTING MEASURES**

Suitable extinguishing media : Carbon dioxide (CO2)

Dry powder Foam

Alcohol-resistant foam

Water mist

Unsuitable extinguishing

media

: High volume water jet

Specific hazards during fire-

fighting

Burning produces noxious and toxic fumes.



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Further information : In the event of fire, cool tanks with water spray.

Special protective equipment:

for firefighters

In the event of fire, wear self-contained breathing apparatus.

Use personal protective equipment.

### **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emer-

gency procedures

Use personal protective equipment.

Ensure adequate ventilation.

Forms slippery/greasy layers with water.

Environmental precautions : Should not be released into the environment.

Do not contaminate water.

Do not flush into surface water or sanitary sewer system.

Methods and materials for containment and cleaning up

Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local /

national regulations (see section 13).

### **SECTION 7. HANDLING AND STORAGE**

Advice on safe handling : Handle in accordance with good industrial hygiene and safety

practice.

Keep container closed when not in use. Do not use pressure to empty drums.

Ensure all equipment is electrically grounded before beginning

transfer operations.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated

place.

Further information on stor-

age stability

Stable under recommended storage conditions.

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

## Components with workplace control parameters

Components	CAS-No.	Value type	Control parame-	Basis
		(Form of	ters / Permissible	
		exposure)	concentration	
triphenyl phosphate	115-86-6	TWA	3 mg/m3	ACGIH
		TWA	3 mg/m3	OSHA Z-1
		TWA	3 mg/m3	OSHA P0
		TWA	3 mg/m3	NIOSH REL
Distillates (petroleum), hydrotreated light naphthenic	64742-53-6	TWA (Mist)	5 mg/m3	OSHA Z-1
		TWA (Inhal- able particu- late matter)	5 mg/m3	ACGIH



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		TWA (Mist)	5 mg/m3	NIOSH REL
		ST (Mist)	10 mg/m3	NIOSH REL
		TWA (Mist)	5 mg/m3	OSHA P0
Distillates (petroleum), hydrotreated middle	64742-46-7	TWA	500 ppm 2,000 mg/m3	OSHA Z-1
		TWA (Mist)	5 mg/m3	OSHA Z-1
		TWA	400 ppm 1,600 mg/m3	OSHA P0
		TWA (Mist)	5 mg/m3	NIOSH REL
		ST (Mist)	10 mg/m3	NIOSH REL
		TWA (Mist)	5 mg/m3	OSHA P0
Distillates (petroleum), hy- drotreated light	64742-47-8	TWA	500 ppm 2,000 mg/m3	OSHA Z-1
		TWA	200 mg/m3 (total hydrocarbon vapor)	ACGIH
		TWA	400 ppm 1,600 mg/m3	OSHA P0
		TWA (Mist)	5 mg/m3	OSHA Z-1
		TWA (Mist)	5 mg/m3	OSHA P0
		TWA (Mist)	5 mg/m3	NIOSH REL
		ST (Mist)	10 mg/m3	NIOSH REL
2,6-di-tert-butyl-p-cresol	128-37-0	TWA	10 mg/m3	OSHA P0
		TWA (Inhal- able fraction and vapor)	2 mg/m3	ACGIH
		TWA	10 mg/m3	NIOSH REL

## Personal protective equipment

Respiratory protection : Breathing apparatus needed only when aerosol or mist is

formed.

In the case of vapour formation use a respirator with an ap-

proved filter.

Hand protection

Remarks : Neoprene gloves

Eye protection : Safety glasses with side-shields

Tightly fitting safety goggles

Skin and body protection : Impervious clothing

Hygiene measures : Avoid contact with skin, eyes and clothing.

Provide adequate ventilation. Do not breathe dust or spray mist.

### **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : liquid

Colour : yellow



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Odour : No data available

Odour Threshold : No data available

pH : No data available

Melting point/range : Not applicable

Boiling point/boiling range : No data available

Flash point : 232 °F / 111 °C

Evaporation rate : No data available

Upper explosion limit / Upper

flammability limit

No data available

Lower explosion limit / Lower

flammability limit

No data available

Vapour pressure : No data available

Relative vapour density : No data available

Relative density : No data available

Density : 0.8698 g/cm3

Solubility(ies)

Water solubility : slightly soluble

Solubility in other solvents : No data available

Partition coefficient: n-

octanol/water

No data available

Auto-ignition temperature : No data available

Self-Accelerating decomposi-

tion temperature (SADT)

Method: No information available.

Viscosity

Viscosity, kinematic : 14.55 mm2/s (104 °F / 40 °C)

Oxidizing potential : No information available.

## **SECTION 10. STABILITY AND REACTIVITY**

Reactivity : No dangerous reaction known under conditions of normal use.

Chemical stability : Stable under normal conditions.



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Possibility of hazardous reac-

tions

Hazardous polymerisation does not occur.

Conditions to avoid : Heat

Incompatible materials : Strong acids and strong bases

Hazardous decomposition

products

Carbon oxides

### **SECTION 11. TOXICOLOGICAL INFORMATION**

## Information on likely routes of exposure

Eye contact Skin contact

### **Acute toxicity**

**Product:** 

Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg

Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: 31.44 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist Method: Calculation method

#### **Components:**

### Distillates (petroleum), hydrotreated light naphthenic:

Acute oral toxicity : LD50 Oral: > 5,000 mg/kg

### Distillates (petroleum), hydrotreated middle:

Acute inhalation toxicity : LC50: 4.6 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

## Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts:

Acute oral toxicity : LD50 Oral (Rat): > 3,600 mg/kg

# Phenol, isobutylenated, phosphate [Triphenyl phosphate > 25%]:

Acute inhalation toxicity : LC50 (Rat): > 0.4 mg/l

Exposure time: 6 h
Test atmosphere: vapour
Symptoms: No adverse effects

GLP: no

Assessment: The substance or mixture has no acute inhala-

tion toxicity

### 2,6-di-tert-butyl-p-cresol:

Acute oral toxicity : LD50 (Rat, male and female): > 2,930 mg/kg



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Method: OECD Test Guideline 401

GLP: yes

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg

Method: OECD Test Guideline 402

GLP: yes

Skin corrosion/irritation

**Components:** 

Distillates (petroleum), hydrotreated middle:

Species : Rabbit Result : irritating

Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts:

Species : Rabbit

Result : Irritating to skin.

2,6-di-tert-butyl-p-cresol:

Species : Rabbit

Result : No skin irritation

Serious eye damage/eye irritation

**Components:** 

Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts:

Species : Rabbit

Result : Risk of serious damage to eyes.

2,6-di-tert-butyl-p-cresol:

Species : Rabbit

Result : No eye irritation

Respiratory or skin sensitisation

Components:

2,6-di-tert-butyl-p-cresol:

Species : Guinea pig

Assessment : Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity

Components:

2,6-di-tert-butyl-p-cresol:

Genotoxicity in vitro : Test Type: Ames test

Metabolic activation: with and without metabolic activation

Result: negative



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Test Type: Chromosome aberration test in vitro

Metabolic activation: with and without metabolic activation

Result: negative

Test Type: unscheduled DNA synthesis assay

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Result: negative

Genotoxicity in vivo : Test Type: In vivo micronucleus test

Species: Mouse (male and female)

Cell type: Bone marrow

Method: Mutagenicity (micronucleus test)

Result: negative

Test Type: in vivo assay Species: Rat (male) Cell type: Bone marrow Application Route: Oral

Method: Mutagenicity (in vivo mammalian bone-marrow cyto-

genetic test, chromosomal analysis)

Result: negative

Germ cell mutagenicity -

Assessment

Animal testing did not show any mutagenic effects.

# Carcinogenicity

IARC No component of this product present at levels greater than or equal to 0.1% is

identified as probable, possible or confirmed human carcinogen by IARC.

**OSHA**No component of this product present at levels greater than or equal to 0.1% is

on OSHA's list of regulated carcinogens.

NTP No component of this product present at levels greater than or equal to 0.1% is

identified as a known or anticipated carcinogen by NTP.

### Reproductive toxicity

## **Components:**

2,6-di-tert-butyl-p-cresol:

Reproductive toxicity - As-

sessment

No toxicity to reproduction No effects on or via lactation

### STOT - repeated exposure

## **Components:**

# 2,6-di-tert-butyl-p-cresol:

Exposure routes : Oral

Assessment : The substance or mixture is not classified as specific target

organ toxicant, repeated exposure.



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## **Aspiration toxicity**

## **Components:**

### Distillates (petroleum), hydrotreated light naphthenic:

May be fatal if swallowed and enters airways.

**Further information** 

**Product:** 

Remarks : There is no data available for this product.

#### **SECTION 12. ECOLOGICAL INFORMATION**

## **Ecotoxicity**

**Product:** 

Toxicity to fish

Remarks: No data available

Toxicity to daphnia and other :

aquatic invertebrates

Remarks: No data available

Toxicity to algae

Remarks: No data available

### **Components:**

# Distillates (petroleum), hydrotreated middle:

Toxicity to fish : LL50: 1.13 mg/l

Exposure time: 96 h

Remarks: The value is given based on a SAR/AAR approach

using OECD Toolbox, DEREK, VEGA QSAR models

(CAESAR models), etc.

Toxicity to daphnia and other :

aquatic invertebrates

EL50: 7.385 mg/l

Exposure time: 48 h

Remarks: The value is given based on a SAR/AAR approach

using OECD Toolbox, DEREK, VEGA QSAR models

(CAESAR models), etc.

Toxicity to algae : EL50: 1.714 mg/l

Exposure time: 72 h

Toxicity to fish (Chronic tox-

icity)

NOELR (Oncorhynchus mykiss (rainbow trout)): 0.069 mg/l

Exposure time: 14 d

Remarks: The value is given based on a SAR/AAR approach

using OECD Toolbox, DEREK, VEGA QSAR models

(CAESAR models), etc.

Toxicity to daphnia and other : NOELR (Daphnia magna (Water flea)): 0.163 mg/l



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aquatic invertebrates (Chron-

ic toxicity)

Exposure time: 21 d

Remarks: The value is given based on a SAR/AAR approach

using OECD Toolbox, DEREK, VEGA QSAR models

(CAESAR models), etc.

**Ecotoxicology Assessment** 

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts:

Toxicity to fish : LL50 (Oncorhynchus mykiss (rainbow trout)): 4.5 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

GLP: yes

Toxicity to daphnia and other :

aquatic invertebrates

EL50 (Daphnia magna (Water flea)): 23 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

GLP: yes

Toxicity to algae : EL50 (Desmodesmus subspicatus (green algae)): 24 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

GLP: yes

Toxicity to daphnia and other :

aquatic invertebrates (Chron-

ic toxicity)

NOEC (Daphnia magna (Water flea)): 0.4 mg/l

Exposure time: 21 d

Method: OECD Test Guideline 211

GLP: yes

Phenol, isobutylenated, phosphate [Triphenyl phosphate > 25%]:

Toxicity to fish : LC50 (Fish): 0.8 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 0.202 mg/l

Exposure time: 48 h

Toxicity to fish (Chronic tox-

icity)

NOEC: 0.093 mg/l

Exposure time: 90 d

Toxicity to daphnia and other : aquatic invertebrates (Chron-

ic toxicity)

NOEC: 0.0399 mg/l Exposure time: 21 d

Persistence and degradability

**Components:** 

Distillates (petroleum), hydrotreated middle:

Biodegradability : Remarks: Readily biodegradable.

Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts:

Biodegradability : Result: Not readily biodegradable.



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Biodegradation: 1.5 % Exposure time: 28 d

Method: OECD Test Guideline 301B

Phenol, isobutylenated, phosphate [Triphenyl phosphate > 25%]:

Biodegradability : GLP: yes

Remarks: Readily biodegradable.

2,6-di-tert-butyl-p-cresol:

Biodegradability : aerobic

Inoculum: activated sludge Concentration: 50 mg/l

Result: According to the results of tests of biodegradability this

product is not readily biodegradable.

Biodegradation: 4.5 % Exposure time: 28 d

**Bioaccumulative potential** 

**Product:** 

Bioaccumulation : Remarks: No data available

Components:

Phenol, isobutylenated, phosphate [Triphenyl phosphate > 25%]:

Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)

Bioconcentration factor (BCF): 1,850

Partition coefficient: n-

octanol/water

log Pow: 4.68 (77 °F / 25 °C)

2,6-di-tert-butyl-p-cresol:

Bioaccumulation : Species: Cyprinus carpio (Carp)

Bioconcentration factor (BCF): 230 - 2,500

Exposure time: 56 d Temperature: 77 °F / 25 °C Concentration: 0.05 mg/l

Partition coefficient: n-

octanol/water

: log Pow: 5.1 GLP: yes

log Pow: 4.2

Mobility in soil

**Product:** 

Mobility : Remarks: No data available

Other adverse effects

**Product:** 



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Results of PBT and vPvB

assessment

: This substance is not considered to be persistent, bioaccumu-

lating and toxic (PBT).

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Pro-

tection of Stratospheric Ozone - CAA Section 602 Class I

Substances

Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological infor-

mation

There is no data available for this product.

### **SECTION 13. DISPOSAL CONSIDERATIONS**

Disposal methods

Waste from residues : In accordance with local and national regulations.

Contaminated packaging : Empty remaining contents.

Dispose of as unused product.

### **SECTION 14. TRANSPORT INFORMATION**

## International Regulations

**IATA-DGR** 

UN/ID No. : UN 3082

Proper shipping name : Environmentally hazardous substance, liquid, n.o.s.

(Distillates (petroleum), hydrotreated middle, Phenol, isobu-

tylenated, phosphate [Triphenyl phosphate > 25%])

Class : 9 Packing group : III

Labels : Miscellaneous

:

Environmentally hazardous : yes

**IMDG-Code** 

UN number : UN 3082

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(Distillates (petroleum), hydrotreated middle, Phenol, isobutyl-

enated, phosphate [Triphenyl phosphate > 25%])

Class : 9
Packing group : III
Labels : 9
EmS Code : F-A, S-F
Marine pollutant : yes

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

Not applicable for product as supplied.

# **National Regulations**



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**49 CFR** 

UN/ID/NA number : UN 3082

Proper shipping name : Environmentally hazardous substances, liquid, n.o.s.

(Distillates (petroleum), hydrotreated middle, Phenol, isobu-

tylenated, phosphate [Triphenyl phosphate > 25%])

Class : 9 Packing group : III

Labels : CLASS 9
ERG Code : 171

Marine pollutant : yes(Distillates (petroleum), hydrotreated middle, Phenol, iso-

butylenated, phosphate [Triphenyl phosphate > 25%])

Remarks : Shipment by ground under DOT is non-regulated; however it

may be shipped per the applicable hazard classification to facilitate multi-modal transport involving ICAO (IATA) or IMO.

## Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

### **SECTION 15. REGULATORY INFORMATION**

### **EPCRA - Emergency Planning and Community Right-to-Know Act**

### **CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ	Calculated product RQ
		(lbs)	(lbs)
2-methylpropan-1-ol	78-83-1	5000	*

<sup>\*:</sup> Calculated RQ exceeds reasonably attainable upper limit.

### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

## SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Skin corrosion or irritation

Serious eye damage or eye irritation

Aspiration hazard

SARA 313 : The following components are subject to reporting levels es-

tablished by SARA Title III, Section 313:

Phosphorodithioic acid, 68457-79-4 >= 1 - < 5 %

mixed O,O-bis(iso-Bu and pentyl) esters, zinc

salts

### Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).



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This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130. Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

## **Maine Chemicals of High Concern**

Product does not contain any listed chemicals

## **Vermont Chemicals of High Concern**

1-phenylazo-2-naphthol 842-07-9

## **Washington Chemicals of High Concern**

1-phenylazo-2-naphthol 842-07-9

## California Prop. 65

WARNING: This product can expose you to chemicals including 1-phenylazo-2-naphthol, which is/are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

### California List of Hazardous Substances

Distillates (petroleum), hydrotreated light naphthenic	64742-53-6
Distillates (petroleum), hydrotreated middle	64742-46-7
Distillates (petroleum), hydrotreated light	64742-47-8
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl)	68457-79-4
esters, zinc salts	

### **California Permissible Exposure Limits for Chemical Contaminants**

Distillates (petroleum), hydrotreated light naphthenic	64742-53-6
Distillates (petroleum), hydrotreated middle	64742-46-7
Distillates (petroleum), hydrotreated light	64742-47-8

Please note that Section 3 of this document lists only the hazardous components required by the specific country or region hazard communication regulations. The chemical identifiers listed in Section 3 are used globally for hazard communication purposes and may not reflect those used for chemical inventory coverage in a particular country or region. The chemical inventory information given in Section 15 of this document applies to the product as a whole and should be used when evaluating inventory compliance.

### The components of this product are reported in the following inventories:

TCSI : On the inventory, or in compliance with the inventory

US.TSCA : All substances listed as active on the TSCA inventory

AICS : On the inventory, or in compliance with the inventory

DSL : All components of this product are on the Canadian DSL

ENCS : On the inventory, or in compliance with the inventory

KECI: On the inventory, or in compliance with the inventory

PICCS : On the inventory, or in compliance with the inventory

IECSC : On the inventory, or in compliance with the inventory



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NZIoC : On the inventory, or in compliance with the inventory

#### **SECTION 16. OTHER INFORMATION**

### **Further information**

#### **Other Emergency Phone Number**

Latin America:	Brazil	+55 11 3197 5891
	All other countries	+44 (0) 1235 239 670
Mexico:		+52 55 5004 8763

### Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
NIOSH REL : USA. NIOSH Recommended Exposure Limits

OSHA PO : USA. OSHA - TABLE Z-1 Limits for Air Contaminants -

1910.1000

OSHA Z-1 : USA. Occupational Exposure Limits (OSHA) - Table Z-1 Lim-

its for Air Contaminants

ACGIH / TWA : 8-hour, time-weighted average

NIOSH REL / TWA : Time-weighted average concentration for up to a 10-hour

workday during a 40-hour workweek

NIOSH REL / ST : STEL - 15-minute TWA exposure that should not be exceeded

at any time during a workday

OSHA P0 / TWA : 8-hour time weighted average OSHA Z-1 / TWA : 8-hour time weighted average

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System: IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI -Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals: OECD - Organization for Economic Co-operation and Develop-



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ment; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date : 03/26/2020

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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