

SAFETY DATA SHEET

ADDITIN RC 3045



Version Revision Date: SDS Number: Date of previous issue: 11/29/2017
2.0 12/05/2020 103000010532 Country / Language: US / EN

SECTION 1. IDENTIFICATION

Product name : ADDITIN RC 3045
Material number : 05056608
Recommended use : Additive for lubricants

Manufacturer or supplier's details

Supplier : LANXESS Corporation
 Product Safety & Regulatory Affairs
 111 RIDC Park West Drive
 PittsburghPA 15275-1112
 USA
Telephone : +1800LANXESS
 +14128091000 (international)
Emergency telephone : CHEMTREC (800) 424 9300
 International (703) 527 3887
 Lanxess Emergency Phone (800) 410-3063

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Skin irritation : Category 2
Serious eye damage : Category 1

GHS label elements

Hazard pictograms : The GHS hazard pictogram for Corrosive (C), which consists of a red diamond-shaped border containing a black silhouette of two hands being corroded by a liquid dripping from a test tube.

Signal Word : Danger
Hazard Statements : Causes skin irritation.
 Causes serious eye damage.

Precautionary Statements : **Prevention:**
 Wash skin thoroughly after handling.
 Wear protective gloves/ eye protection/ face protection.
Response:

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IF ON SKIN: Wash with plenty of soap and water.
IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
If skin irritation occurs: Get medical advice/ attention.
Take off contaminated clothing and wash before reuse.

Hazard Not Otherwise Classified (HNOC)

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance
CAS-No. : Not Assigned

Hazardous ingredients

Chemical name	CAS-No.	Concentration (% w/w)
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts	68457-79-4	$\geq 90 - \leq 100$
Distillates (petroleum), hydrotreated light paraffinic	64742-55-8	$\geq 5 - < 10$

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

SECTION 4. FIRST AID MEASURES

If inhaled : If inhaled, remove to fresh air.
Get medical attention if symptoms occur.

In case of skin contact : Wash off with soap and water.
Continue to rinse for at least 20 minutes.
Get medical attention if symptoms occur.
Wash contaminated clothing before reuse.

In case of eye contact : Get medical attention immediately.
In case of contact, flush eyes with plenty of water for at least 30 minutes. Use fingers to ensure that eyelids are separated and that the eye is being irrigated.
Remove contact lenses, if present and easy to do. Continue rinsing.
Chemical burns must be treated promptly by a physician.

If swallowed : Rinse mouth with water.
Do not induce vomiting unless directed to do by medical personnel.
Get medical attention if symptoms occur.

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Most important symptoms and effects, both acute and delayed

Symptoms : Eye: Causes irritation with symptoms of reddening, tearing, stinging, and swelling.
 : Skin: Causes irritation with symptoms of reddening, itching, and swelling.

Effects : Causes skin irritation.
 : Causes serious eye damage.

Notes to physician : Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media : None known.

Specific hazards during fire fighting : Toxic and irritating gases/fumes may be given off during burning or thermal decomposition.

Hazardous combustion products : Carbon dioxide (CO₂)
 : Carbon monoxide
 : Sulfur oxides
 : Oxides of phosphorus
 : Metal oxides

 : Carbon dioxide (CO₂)
 : Carbon monoxide

Further information : 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.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : No action shall be taken involving any personal risk or without suitable training.
 : Put on appropriate personal protection equipment.
 : Do not touch or walk through spilled material.
 : Evacuate personnel to safe areas.
 : Keep unnecessary and unprotected personnel from entering.
 : Provide adequate ventilation.
 : Do not breathe vapors, aerosols.

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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Distillates (petroleum), hydrotreated light paraffinic	64742-55-8	TWA (Mist)	5 mg/m ³	OSHA Z-1
		TWA (Inhalable particulate matter)	5 mg/m ³	ACGIH
		TWA (Mist)	5 mg/m ³	OSHA P0
		TWA (Mist)	5 mg/m ³	NIOSH REL
		ST (Mist)	10 mg/m ³	NIOSH REL

Engineering measures : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Personal protective equipment

Respiratory protection : 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. The following respirator is recommended if airborne concentrations exceed the appropriate standard/guideline. A NIOSH approved air purifying respirator with organic vapor cartridges and particulate prefilter can be used to minimize exposure.

Hand protection

Material : Polyvinyl chloride - PVC
Wearing time : < 60 min

Material : Nitrile rubber - NBR
Wearing time : < 60 min

Remarks : Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Eye protection : Tightly fitting safety goggles
If inhalation hazards exist, a full-face respirator may be required instead.

Skin and body protection : Permeation resistant clothing and foot protection.

Hygiene measures : Wash hands, forearms and face thoroughly after handling

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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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	:	liquid
Color	:	yellow
Odor	:	characteristic
Odor Threshold	:	No data available
pH	:	Not applicable
Pour point	:	-6 °F (-21 °C)
Boiling point/boiling range	:	421 °F (216 °C) (1,013 hPa)
Flash point	:	363 °F (184 °C) Method: closed cup
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit	:	No data available
Vapor pressure	:	0.0018752 mmHg (68 °F (20 °C))
Relative vapor density	:	No data available
Relative density	:	No data available
Density	:	1.16 g/cm ³ (68 °F (20 °C))
Solubility(ies) Water solubility	:	1.625 g/l

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Partition coefficient: n-octanol/water	:	No data available
Ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	
Viscosity, kinematic	:	131.6 mm ² /s (104 °F (40 °C))
Explosive properties	:	No data available
Oxidizing properties	:	No data available

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 chemically stable.
Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	:	Extremes of temperature and direct sunlight.
Incompatible materials	:	Reducing agents Oxidizing agents Acids and bases
Hazardous decomposition products	:	No decomposition if stored and applied as directed.

SECTION 11. TOXICOLOGICAL INFORMATION

The most important known symptoms and effects are described in Section 2 and/or Section 4.

Information on likely routes of exposure

Inhalation
Eye contact
Skin contact
Ingestion

Acute toxicity

Not classified based on available information.

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Acute oral toxicity : Acute toxicity estimate: 3,987 mg/kg
Method: Calculation method

Components:

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

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

Acute dermal toxicity : LD50 (Rabbit, male and female): > 20,000 mg/kg

Distillates (petroleum), hydrotreated light paraffinic:

Acute oral toxicity : LD50 (Rat, male and female): > 5,000 mg/kg
Method: OECD Test Guideline 401
GLP: yes
Remarks: Test results on an analogous product

Acute inhalation toxicity : LC50 (Rat, male and female): > 5.53 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
GLP: yes
Assessment: The substance or mixture has no acute inhalation toxicity
Remarks: Test results on an analogous product

Acute dermal toxicity : LD50 (Rabbit, male and female): > 5,000 mg/kg
Method: OECD Test Guideline 402
GLP: yes

Skin corrosion/irritation

Causes skin irritation.

Components:

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

Species: Rabbit
Assessment: Irritating to skin.
Method: OECD Test Guideline 404
Result: Irritating to skin.
GLP: no

Distillates (petroleum), hydrotreated light paraffinic:

Species: Rabbit
Method: Draize Test
Result: No skin irritation
GLP: yes
Remarks: Test results on an analogous product

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Serious eye damage/eye irritation

Causes serious eye damage.

Product:

Remarks: May cause irreversible eye damage.

Components:

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

Result: Risk of serious damage to eyes.

Method: OECD Test Guideline 405

Distillates (petroleum), hydrotreated light paraffinic:

Species: Rabbit

Result: No eye irritation

Method: OECD Test Guideline 405

GLP: yes

Remarks: Test results on an analogous product

Respiratory or skin sensitization

Skin sensitization

Not classified based on available information.

Respiratory sensitization

Not classified based on available information.

Components:

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

Result: negative

Remarks: Read-across from analogue

Distillates (petroleum), hydrotreated light paraffinic:

Test Type: Buehler Test

Routes of exposure: Skin contact

Species: Guinea pig

Method: OECD Test Guideline 406

Result: Did not cause sensitization on laboratory animals.

GLP: yes

Remarks: Test results on an analogous product

Germ cell mutagenicity

Not classified based on available information.

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Species: Rat, male and female
Application Route: Oral
Dose: 1000 milligram per kilogram
General Toxicity Parent: NOAEL: \geq 1,000 mg/kg body weight
Fertility: NOAEL: \geq 1,000 mg/kg body weight
Method: OECD Test Guideline 421
Result: No effects on fertility and early embryonic development were detected.
GLP: yes
Remarks: Test results on an analogous product

Effects on fetal development : Test Type: Embryo-fetal development
Species: Rat, female
Application Route: Dermal
Dose: 125 - 500 - 2000 milligram per kilogram
General Toxicity Maternal: LOAEL: 125 mg/kg body weight
Teratogenicity: NOAEL: \geq 2,000 mg/kg body weight
Developmental Toxicity: NOAEL: \geq 2,000 mg/kg body weight
Method: OECD Test Guideline 414
Result: negative
GLP: yes
Remarks: Test results on an analogous product

STOT-single exposure

Not classified based on available information.

Components:

Distillates (petroleum), hydrotreated light paraffinic:

Assessment: May cause respiratory irritation.

STOT-repeated exposure

Not classified based on available information.

Repeated dose toxicity

Components:

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

Species: Rat
NOAEL: 160 mg/kg
Application Route: Oral
Exposure time: 52 d
Method: OECD Test Guideline 422

Distillates (petroleum), hydrotreated light paraffinic:

Species: Rat, male
LOAEL: 125 mg/kg

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Application Route: Oral
Exposure time: 90 d
Dose: 125 - 500 mg/kg bw/d
Method: OECD Test Guideline 408
GLP: No information available.
Remarks: Subchronic toxicity
Test results on an analogous product

Species: Rat, male and female
NOAEL: > 980 mg/m³
Application Route: Inhalation
Test atmosphere: dust/mist
Exposure time: 28 d
Dose: 50 - 220 - 980 mg/m³
Method: OECD Test Guideline 412
GLP: No information available.
Remarks: Subacute toxicity
Test results on an analogous product

Species: Rabbit, male and female
NOAEL: 1,000 mg/kg
Application Route: Skin contact
Exposure time: 28 d
Dose: 200 - 1000 - 2000 mg/kg bw/d
Method: OECD Test Guideline 410
GLP: yes
Remarks: Subacute toxicity
Test results on an analogous product

Aspiration toxicity

Not classified based on available information.

Components:

Distillates (petroleum), hydrotreated light paraffinic:

May be fatal if swallowed and enters airways.

Further information

Product:

Remarks: No data available

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SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

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

Toxicity to fish : LL50 (Cyprinodon variegatus (sheepshead minnow)): 4.5 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 23 mg/l
aquatic invertebrates Exposure time: 48 h
Method: OECD Test Guideline 202

NOEC (Daphnia magna (Water flea)): 10 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
Remarks: water extractable fraction

Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): 21 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: water extractable fraction

NOEC (Desmodesmus subspicatus (green algae)): 10 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: water extractable fraction

Toxicity to daphnia and other : NOEC (Daphnia magna (Water flea)): 0.4 mg/l
aquatic invertebrates (Chronic toxicity) Exposure time: 21 d
Method: OECD Test Guideline 211

Lowest Observed Effect Concentration (Daphnia magna (Water flea)): 0.8 mg/l
Exposure time: 21 d
Method: OECD Test Guideline 211

Ecotoxicology Assessment

Acute aquatic toxicity : Toxic to aquatic life.

Distillates (petroleum), hydrotreated light paraffinic:

Toxicity to fish : LL50 (Pimephales promelas (fathead minnow)): > 100 mg/l
Exposure time: 96 h
Analytical monitoring: yes
Method: OECD Test Guideline 203

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GLP: yes
Remarks: water extractable fraction

Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): > 10,000 mg/l
Exposure time: 48 h
Analytical monitoring: no
Method: OECD Test Guideline 202
GLP: no
Remarks: water extractable fraction

Toxicity to algae : EL50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l
End point: Growth rate
Exposure time: 72 h
Analytical monitoring: no
Method: OECD Test Guideline 201
GLP: no
Remarks: water extractable fraction

NOEC (Pseudokirchneriella subcapitata (microalgae)): >= 100 mg/l
End point: Growth rate
Exposure time: 72 h
Analytical monitoring: no
Method: OECD Test Guideline 201
GLP: no
Remarks: water extractable fraction

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOELR (Daphnia magna (Water flea)): 10 mg/l
End point: Reproduction
Exposure time: 21 d
Analytical monitoring: no
Method: OECD Test Guideline 211
GLP: yes
Remarks: water extractable fraction

Persistence and degradability

Components:

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

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 1.5 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

Distillates (petroleum), hydrotreated light paraffinic:

Biodegradability : Result: Not readily biodegradable.

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Waste disposal should be in accordance with existing federal, state, provincial and/or local environmental controls.

SECTION 14. TRANSPORT INFORMATION

Domestic regulation

DOT

UN/ID/NA number : UN 3082
Proper shipping name : Environmentally hazardous substance, liquid, n.o.s.
(PHOSPHORODITHIOIC ACID, MIXED O,O-BIS(ISO-BU AND PENTYL) ESTERS, ZINC SALTS)
Class : 9
Packing group : III
Labels : 9



Marine pollutant : yes



Further information for transport : The U.S. DOT regulations in 49 CFR 172.102 permit this material to ship as an Environmentally Hazardous Substance, Class 9, using Special Provision 146.

International Regulations

IATA-DGR

UN/ID No. : UN 3082
Proper shipping name : Environmentally hazardous substance, liquid, n.o.s.
(PHOSPHORODITHIOIC ACID, MIXED O,O-BIS(ISO-BU AND PENTYL) ESTERS, ZINC SALTS)
Class : 9
Packing group : III
Labels : 9



Packing instruction (cargo aircraft) : 964: 450.00 L

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Packing instruction (passenger aircraft) : 964: 450.00 L
Environmentally hazardous : yes



IMDG-Code

UN number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PHOSPHORODITHIOIC ACID, MIXED O,O-BIS(ISO-BU AND PENTYL) ESTERS, ZINC SALTS)

Class : 9
Packing group : III
Labels : 9



Marine pollutant : yes



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

Not applicable for product as supplied.

SECTION 15. REGULATORY INFORMATION

CERCLA

None

Reportable Quantity

This material does not contain any components with a CERCLA 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

SARA 313

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The following components are subject to reporting levels established by SARA Title III, Section 313:

Components	CAS-No.	Concentration
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts	68457-79-4	90 - 100 %

US State Regulations

Massachusetts Right To Know

Distillates (petroleum), hydrotreated light paraffinic 64742-55-8 >= 5 - < 10

Massachusetts Right To Know

Distillates (petroleum), hydrotreated light paraffinic 64742-55-8

Pennsylvania Right To Know

Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts 68457-79-4 >= 90 - < 100

Distillates (petroleum), hydrotreated light paraffinic 64742-55-8 >= 5 - < 10

Pennsylvania Right To Know

Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts 68457-79-4

Distillates (petroleum), hydrotreated light paraffinic 64742-55-8

California Prop. 65

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive defects.

TSCA inventory

TSCA : On TSCA Inventory

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

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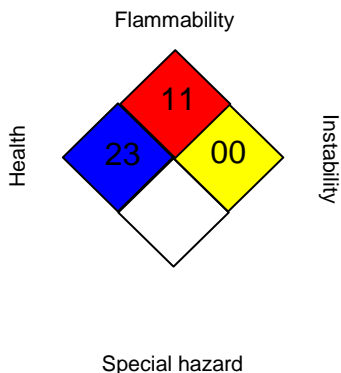
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SECTION 16. OTHER INFORMATION

Further information

NFPA:



HMIS® IV:

HEALTH	/	2
FLAMMABILITY		1
PHYSICAL HAZARD		0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

LANXESS' method of hazard communication is comprised of Product Labels and Safety Data Sheets. HMIS and NFPA ratings are provided by LANXESS as a customer service.

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