

# SAFETY DATA SHEET

## Section 1. Identification

<b>Product identifier</b>	: ADDITIN RC 3058
<b>Material Number</b>	: 05055938
<b>Identified uses</b>	: Additive for lubricants
<b>Supplier/Manufacturer</b>	: LANXESS Corporation Rhein Chemie Additives 111 RIDC Park West Drive Pittsburgh, PA 15275-1112 USA
	For information: US/Canada (800) LANXESS International +1 412 809 1000
<b>In case of emergency</b>	: Chemtrec (800) 424-9300 International (703) 527-3887 Lanxess Emergency Phone (800) 410-3063.

## Section 2. Hazards identification

<b>HAZCOM Standard Status</b>	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
<b>Physical state</b>	: Liquid.
<b>Color</b>	: Yellow.
<b>Classification of the substance or mixture</b>	: ACUTE TOXICITY (inhalation) - Category 4 SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 83%
<b>Hazard pictograms</b>	: 
<b>Signal word</b>	: Danger
<b>Hazard statements</b>	: Harmful if inhaled. Causes serious eye damage. Causes skin irritation. May cause respiratory irritation.
<b>Hazard Not Otherwise Classified (HNOC)</b>	: None known.
<b>Precautionary statements</b>	
<b>Prevention</b>	: Wear protective gloves and eye/face protection. Use only in a well-ventilated area. Avoid breathing vapor. Wash hands thoroughly after handling.
<b>Response</b>	: Get medical attention if you feel unwell. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
<b>Storage</b>	: Store locked up.
<b>Disposal</b>	: Dispose of contents and container in accordance with all local, regional, national and international regulations.

## Section 2. Hazards identification

**Supplemental label elements** : Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials and food and drink.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

Ingredient name	%	CAS number
Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu and pentyl) esters, zinc salts	75 - 90	68988-45-4
Distillates (petroleum), hydrotreated light paraffinic	10 - <20	64742-55-8

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 and hence require reporting in this section.**

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of first aid measures

- Eye contact** : Get medical attention immediately. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. In case of contact with eyes, flush eyes with plenty of water for at least 30 minutes. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. If not breathing, if breathing is irregular or respiratory arrest occurs, provide artificial respiration, or oxygen by a trained professional, using a pocket type respirator.
- Skin contact** : In case of contact, flush skin with plenty of water for at least 30 minutes. Get medical attention immediately. Immediately remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. 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. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : Harmful if inhaled. May cause respiratory irritation.
- Skin contact** : Causes skin irritation.
- Ingestion** : May cause burns to mouth, throat and stomach. No known significant effects or critical hazards.

### Over-exposure signs/symptoms

- Eye contact** : Corrosive with symptoms of reddening, tearing, swelling, burning and possible permanent damage.

## Section 4. First aid measures

- Inhalation** : May cause adverse respiratory effects including cough, tightness of chest and shortness of breath.  
May cause respiratory tract irritation with symptoms of coughing, sore throat and runny nose.
- Skin contact** : Corrosive with symptoms of reddening, itching, swelling, burning and possible permanent damage.  
Causes irritation with symptoms of reddening, itching, and swelling.
- Ingestion** : Corrosive with symptoms of coughing, burning, ulceration, and pain.
- Potential chronic health effects**  
No known significant effects or critical hazards.

- Notes to physician** : Treat symptomatically. No specific treatment.
- Protection of first-aiders** : If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire. In case of fire, use water spray (fog), foam or dry chemical.
- Unsuitable extinguishing media** : High volume water jet

- Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst. Toxic and irritating gases/fumes may be given off during burning or thermal decomposition. Water runoff from fire fighting may be corrosive. Vapors may form explosive mixtures with air.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
sulfur oxides

- 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** : 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. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

- 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 containment and cleaning up** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. 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. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal. Prevent entry into sewers, water courses, basements or confined areas.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. Remove contaminated clothing and protective equipment before entering eating areas. Workers should wash hands and face before eating, drinking and smoking. Put on appropriate personal protection equipment. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.
- Conditions for safe storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (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. Empty containers retain product residue and can be hazardous. Do not reuse container.

## Section 8. Exposure controls/personal protection

### Occupational exposure limits

Ingredient name	Exposure limits
Distillates (petroleum), hydrotreated light paraffinic	<b>ACGIH TLV (United States, 4/2014).</b> TWA: 5 mg/m <sup>3</sup> 8 hours. Form: Inhalable fraction <b>OSHA PEL (United States, 2/2013).</b> TWA: 5 mg/m <sup>3</sup> 8 hours.

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

- Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

### Personal protection

- Hygiene measures** : 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.
- 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. A NIOSH approved air purifying respirator with organic vapor cartridges and particulate prefilter can be used to minimize exposure.
- Skin protection** : Permeation resistant clothing and foot protection. Permeation resistant gloves.
- Eye/face protection** : chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead. If contact with product is possible, wear safety glasses with side shields.
- Medical Surveillance** : Not available.

## Section 9. Physical and chemical properties

<b>Physical state</b>	: Liquid.
<b>Color</b>	: Yellow.
<b>Odor</b>	: Characteristic.
<b>Odor threshold</b>	: Not available.
<b>pH</b>	: 5 to 6,5
<b>Boiling point</b>	: Not available.
<b>Melting point</b>	: Not available.
<b>Flash point</b>	: Closed cup: >150°C (>302°F) [DIN ISO 2592]
<b>Evaporation rate</b>	: Not available.
<b>Explosion limits</b>	: Not available.
<b>Vapor pressure</b>	: Not available.
<b>Density</b>	: 1,12 g/cm <sup>3</sup>
<b>Specific gravity (Relative density)</b>	: Not available.
<b>Partition coefficient: n-octanol/water</b>	: Not available.
<b>Vapor density</b>	: Not available.
<b>Viscosity</b>	: Kinematic: 1 cm <sup>2</sup> /s
<b>Auto-ignition temperature</b>	: Not available.
<b>Decomposition temperature</b>	: >80°C

## Section 10. Stability and reactivity

<b>Reactivity</b>	: No specific test data related to reactivity available for this product or its ingredients.
<b>Chemical stability</b>	: The product is stable.
<b>Possibility of hazardous reactions</b>	: Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	: Extremes of temperature and direct sunlight. Spontaneous decomposition may start at 150°C. After prolonged heating, slow decomposition may start at above 80°C.
<b>Incompatible materials</b>	: Reducing agents, oxidizing agents, acids and bases
<b>Hazardous decomposition products</b>	: Formation of alkylmercaptans, dialkylsulphides, traces of hydrogen sulphide possible.

## Section 11. Toxicological information

<b>Information on the likely routes of exposure</b>	: Dermal contact. Eye contact. Inhalation. Ingestion.
<b><u>Potential acute health effects</u></b>	
<b>Eye contact</b>	: Causes serious eye damage.
<b>Inhalation</b>	: Harmful if inhaled. May cause respiratory irritation.
<b>Skin contact</b>	: Causes skin irritation.
<b>Ingestion</b>	: May cause burns to mouth, throat and stomach. No known significant effects or critical hazards.
<b><u>Symptoms related to the physical, chemical and toxicological characteristics</u></b>	
<b>Eye contact</b>	: Corrosive with symptoms of reddening, tearing, swelling, burning and possible permanent damage.
<b>Inhalation</b>	: May cause adverse respiratory effects including cough, tightness of chest and shortness of breath. May cause respiratory tract irritation with symptoms of coughing, sore throat and runny nose.
<b>Skin contact</b>	: Corrosive with symptoms of reddening, itching, swelling, burning and possible permanent damage. Causes irritation with symptoms of reddening, itching, and swelling.

## Section 11. Toxicological information

**Ingestion** : Corrosive with symptoms of coughing, burning, ulceration, and pain.

### Potential chronic health effects

#### Short term exposure

**Potential immediate effects** : Not available.

#### Long term exposure

**Potential delayed effects** : 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.

**Fertility effects** : No known significant effects or critical hazards.

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure	Test
ADDITIN RC 3058	LD50 Oral	Rat	>5000 mg/kg	-	-
Distillates (petroleum), hydrotreated light paraffinic	LD50 Dermal	Rabbit	>5000 mg/kg	-	-
Distillates (petroleum), hydrotreated light paraffinic	LC50 Inhalation Dusts and mists	Rat - Male, Female	2,18 mg/l	4 hours	-

#### Irritation/Corrosion

##### Conclusion/Summary

**Skin** : Irritant. \* In analogy to test results for a similarly composed product.

**Eyes** : Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu and pentyl) esters, zinc salts: Causes serious eye damage.  
Distillates (petroleum), hydrotreated light paraffinic: Non-irritating (Rabbit)

#### Sensitization

**Skin** : Distillates (petroleum), hydrotreated light paraffinic: Non-sensitizer.

#### Chronic toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Distillates (petroleum), hydrotreated light paraffinic	Chronic NOAEL Dermal	Rabbit	200 mg/kg	28 days; 3 days per week
	Sub-chronic NOAEL Inhalation Vapor	Rat	0,05 mg/l	10 days; 6 hours per day

#### Mutagenicity

Product/ingredient name	Test	Experiment	Result
Distillates (petroleum), hydrotreated light paraffinic	-	Experiment: In vitro Subject: Bacteria Metabolic activation: with/without	Negative
	Mouse lymphoma assay	Experiment: In vitro Subject: Mammalian-Animal	Equivocal

#### Carcinogenicity

## Section 11. Toxicological information

Product/ingredient name	CAS #	IARC	NTP	OSHA
Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu and pentyl) esters, zinc salts	68988-45-4	Not classified.	Not classified.	Not classified.
Distillates (petroleum), hydrotreated light paraffinic	64742-55-8	Not classified.	Not classified.	Not classified.

### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu and pentyl) esters, zinc salts	Category 3	Not applicable.	Respiratory tract irritation
Distillates (petroleum), hydrotreated light paraffinic	Category 3	Not applicable.	Respiratory tract irritation

### Acute toxicity estimates

Route	ATE value (Acute Toxicity Estimates)
Inhalation (dusts and mists)	2,18 mg/l

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Test	Result	Species	Exposure
ADDITIN RC 3058	-	Acute LC50 4,5 mg/l	Fish	96 hours

**Conclusion/Summary** : Not available.

### Persistence and degradability

**Conclusion/Summary** : Not available.

### Bioaccumulative potential

Not available.

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

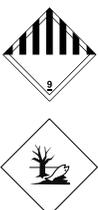
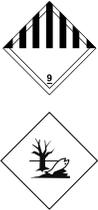
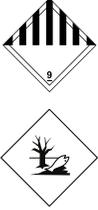
**Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Waste disposal should be in accordance with existing federal state, provincial and or local environmental controls laws.

**RCRA classification** : : If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

## Section 14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
<b>DOT Classification</b>	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PHOSPHORODITHIONIC ACID, MIXED O,O-BIS(ISOBUTYL AND PENTYL) ESTERS, ZINC SALTS)	9	III		8, 146, 173, 335, IB3, T4, TP1, TP29 The U.S. Department of Transportation regulations in 49CFR 172.102 permit this material to ship as an Environmentally Hazardous Substance, Class 9, using Special Provision 146.
<b>IMDG Class</b>	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PHOSPHORODITHIONIC ACID, MIXED O,O-BIS(ISOBUTYL AND PENTYL) ESTERS, ZINC SALTS)	9	III		<b>Emergency schedules (EmS)</b> F-A, S-F
<b>IATA-DGR Class</b>	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PHOSPHORODITHIONIC ACID, MIXED O,O-BIS(ISOBUTYL AND PENTYL) ESTERS, ZINC SALTS)	9	III		<b>Passenger aircraft</b> 964: 450 L  <b>Cargo aircraft</b> 964: 450 L

PG\* : Packing group

**RQ** : 0 lbs

## Section 15. Regulatory information

**SARA 311/312** : Immediate (acute) health hazard

**SARA Title III Section 302 Extremely Hazardous Substances** : None

	<u>Ingredient name</u>	<u>CAS number</u>	<u>Concentration (%)</u>
<b>SARA Title III Section 313 Toxic Chemicals</b>	: Phosphorodithioic acid, mixed O,O-bis (2-ethylhexyl and iso-Bu and pentyl) esters, zinc salts	68988-45-4	80 - 86%

	<u>Ingredient name</u>	<u>CAS number</u>	<u>RQ</u>
<b>US EPA CERCLA Hazardous Substances (40 CFR 302.4)</b>	: Phosphorodithioic acid, mixed O,O-bis (2-ethylhexyl and iso-Bu and pentyl) esters, zinc salts	68988-45-4	NO_RQ

### State regulations

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections on the SDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

<u>Ingredient name</u>	<u>CAS number</u>	<u>State Code</u>	<u>Concentration (%)</u>
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## Section 15. Regulatory information

Distillates (petroleum), hydrotreated light paraffinic	64742-55-8	MA - S, NJ - HS, PA - RTK HS	14 - 20%
Phosphorodithioic acid, mixed O,O-bis (2-ethylhexyl and iso-Bu and pentyl) esters, zinc salts	68988-45-4	NJ - HS	80 - 86%

Massachusetts Substances: MA - S

Massachusetts Extraordinary Hazardous Substances: MA - Extra HS

New Jersey Hazardous Substances: NJ - HS

Pennsylvania RTK Hazardous Substances: PA - RTK HS

Pennsylvania Special Hazardous Substances: PA - Special HS

### California Prop. 65

To the best of our knowledge, this product does not contain any of the listed chemicals, which the state of California has found to cause cancer, birth defects or other reproductive harm.

**U.S. Toxic Substances Control Act** : Listed on the TSCA Inventory.

## Section 16. Other information

**Hazardous Material Information System**

Health	2
Flammability	1
Physical hazards	0

0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme  
\*=Chronic

The customer is responsible for determining the PPE code for this material. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

**National Fire Protection Association (U.S.A.)**



0= Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

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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**Date of issue** : 06-21-2016

**Date of previous issue** : 06-21-2016

**Version** : 3.02

Product Safety and Regulatory Affairs

Indicates information that has changed from previously issued version.

### Notice to reader

## **Section 16. Other information**

This information is furnished without warranty, express or implied. This information is believed to be accurate to the best knowledge of LANXESS Corporation. The information in this SDS relates only to the specific material designated herein. LANXESS Corporation assumes no legal responsibility for use of or reliance upon the information in this SDS.