SAFETY DATA SHEET



Section 1. Identification

Product identifier : ADDITIN RC 9200

Material Number : 05175801

 Identified uses
 : Additive for lubricants

 Supplier/Manufacturer
 : 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

In case of emergency : Chemtrec (800) 424-9300

International (703) 527-3887

Lanxess Emergency Phone (800) 410-3063.

Section 2. Hazards identification

HAZCOM Standard Status

: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Physical state : Liquid.

Color : Dark Brown.

Classification of the substance or mixture

: SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION. - Category 1

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract

irritation) - Category 3

Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 5.7%

Hazard pictograms





Signal word : Danger

Hazard statements : Causes serious eye damage. May cause an allergic skin reaction. May cause

respiratory irritation.

Hazard Not Otherwise Classified (HNOC) Precautionary statements : None known.

Prevention : Wear protective gloves and eye/face protection. Use only in a well-ventilated area.

Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work

clothing should not be allowed out of the workplace.

Response : 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. 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.

Storage : Store locked up.

Disposal : Dispose of contents and container in accordance with all local, regional, national and

international regulations.

LANXESS

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
Zinc Alkyldithiophosphate	25 - 50	4259-15-8
Butylated Hydroxytoluene	<10	128-39-2
Benzenesulfonic acid, di-C10-14-alkyl derivs., calcium salts Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	≤5 ≤5	93820-57-6 72623-86-0

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. 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 irregulor or respiratory arrest occurs, provide artifical 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 with plenty of soap and water. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. In the event of any complaints or symptoms, avoid further exposure. 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 : May cause respiratory irritation.

Skin contact : May cause an allergic skin reaction.

Ingestion : 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.

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Section 4. First aid measures

Inhalation : May cause respiratory tract irritation with symptoms of coughing, sore throat and runny

nose

Skin contact : No specific data. : No specific data. Ingestion

Potential chronic health effects

Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

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

: None known.

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:

carbon dioxide carbon monoxide sulfur oxides phosphorus 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.

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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. Persons with a history of skin sensitization to this product should not be employed in any process in which this product is used.

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
Zinc Alkyldithiophosphate Butylated Hydroxytoluene Benzenesulfonic acid, di-C10-14-alkyl derivs., calcium salts Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	None None None ACGIH TLV (United States, 3/2015). TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction OSHA PEL (United States, 2/2013). TWA: 5 mg/m³ 8 hours.

Appropriate engineering controls

: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, 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. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that evewash 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 Eye/face protection

: Permeation resistant clothing and foot protection. Permeation resistant gloves.

: 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.

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Section 9. Physical and chemical properties

Physical state : Liquid.

Color: Dark Brown.Odor: Characteristic.Odor threshold: Not available.pH: Not available.

Boiling point : Not available.

Melting point : Not available.

Flash point : Closed cup: 150°C (302°F)

Evaporation rate: Not available.Explosion limits: Not available.Vapor pressure: Not available.Density: 1 g/cm³

Specific gravity (Relative

density)

: Not available.

Solubility in water : Insoluble in the following materials: cold water

Partition coefficient: n-

octanol/water

Not available.

Vapor density : Not available.

Viscosity : Kinematic: 75 mm²/s

Auto-ignition temperature: Not available.

Decomposition temperature : >80°C

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 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

Hazardous decomposition

products

: Reducing agents, oxidizing agents, acids and bases

: Spontaneous decomposition may start at 150°C. After prolonged heating, slow

decomposition may start at above 80°C. Formation of alkylmercaptans, dialkylsulphides,

traces of hydrogen sulphide possible.

Section 11. Toxicological information

Information on the likely routes of exposure

: Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Eye contact
 Inhalation
 May cause respiratory irritation.
 Skin contact
 May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact: Corrosive with symptoms of reddening, tearing, swelling, burning and possible

permanent damage.

Inhalation : May cause respiratory tract irritation with symptoms of coughing, sore throat and runny

nose.

Skin contact : No specific data.

Ingestion : No specific data.

Potential chronic health effects



Section 11. Toxicological information

Short term exposure

Potential immediate

effects

: Not available.

Long term exposure

Potential delayed effects : Not available.

General: Once sensitized, a severe allergic reaction may occur when subsequently exposed to

very low levels.

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
Zinc Alkyldithiophosphate Butylated Hydroxytoluene Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	LD50 Oral LD50 Oral LD50 Oral	Rat Rat Rat	3.1 g/kg >5000 mg/kg >5000 mg/kg	-	- OECD 401 Acute Oral Toxicity
Zinc Alkyldithiophosphate Butylated Hydroxytoluene Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	LD50 Dermal LD50 Dermal LD50 Dermal	Rabbit Rabbit Rabbit	>5 g/kg >10 g/kg >2000 mg/kg	-	- - 402 Acute Dermal Toxicity
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	LC50 Inhalation Dusts and mists	Rat	>5.53 mg/l	4 hours	OECD 403 Acute Inhalation Toxicity

Irritation/Corrosion

Product/ingredient	Result	Species	Score	Exposure	Observation	Reversibility
name						
Butylated Hydroxytoluene	Skin - Moderate irritant	Rat	-	0.5 Mililiters	-	-

Conclusion/Summary

Skin : Zinc Alkyldithiophosphate:Non-irritating

Butylated Hydroxytoluene:Moderate irritant

Eyes : Zinc Alkyldithiophosphate: Causes serious eye damage.

Butylated Hydroxytoluene:Non-irritating (Rabbit)

Sensitization

Skin : Benzenesulfonic acid, di-C10-14-alkyl derivs., calcium salts :Sensitizing

Carcinogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	Negative - Unreported -	Human	-	-

Conclusion/Summary: Butylated Hydroxytoluene:No known significant effects or critical hazards.

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Section 11. Toxicological information

Product/ingredient name	CAS#	IARC	NTP	OSHA
Zinc Alkyldithiophosphate Butylated Hydroxytoluene	4259-15-8 128-39-2	Not classified.	Not classified. Not classified.	Not classified. Not classified.
Benzenesulfonic acid, di-C10-14-alkyl	93820-57-6	Not classified.	Not classified.	Not classified.
derivs., calcium salts Lubricating oils (petroleum), C15-30,	72623-86-0	Not classified.	Not classified.	Not classified.
hydrotreated neutral oil-based				

Reproductive toxicity

Conclusion/Summary : Butylated Hydroxytoluene:No known significant effects or critical hazards.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Zinc Alkyldithiophosphate	Category 3	Not applicable.	Respiratory tract irritation
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	Category 3	Not applicable.	Respiratory tract irritation

Acute toxicity estimates

Route	ATE value (Acute Toxicity Estimates)
Oral	6696.4 mg/kg

Section 12. Ecological information

Toxicity

Product/ingredient name	Test	Result	Species	Exposure
Zinc Alkyldithiophosphate	-	EC50 1 to 5 mg/l	Algae - Pseudokirchneriella subcapitata	96 hours
	-	EC50 1 to 1.5 mg/l	Daphnia - Daphnia magna	48 hours
	static test	LC50 1 to 5 mg/l	Fish - Pimephales promelas	96 hours
Butylated Hydroxytoluene	-	Acute EC50 >1000 mg/l	Bacteria	3 hours
	-	Acute EC50 0.45 mg/l	Daphnia	48 hours
	-	Acute LC50 1.4 mg/l	Fish - Pimephales promelas	96 hours
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	OECD 202 <i>Daphnia</i> sp. Acute Immobilization Test	Acute EC50 >10000 mg/l	Crustaceans - Daphnia magna	48 hours
	OECD 203 Fish, Acute Toxicity Test	Acute LC50 >100 mg/l	Fish - Pimephales promelas	96 hours
	OECD 201 Alga, Growth Inhibition Test	Acute NOEC >100 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours
	OECD 211 <i>Daphnia Magna</i> Reproduction Test	Chronic NOEC 10 mg/l	Crustaceans - Daphnia magna	21 days

Conclusion/Summary

: Not available.

Persistence and degradability

Conclusion/Summary: Not available.

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Section 12. Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Butylated Hydroxytoluene	-	-	Not readily
Lubricating oils (petroleum),	-	-	Not readily
C15-30, hydrotreated neutral			
oil-based			

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Zinc Alkyldithiophosphate	3.59	-	low
Butylated Hydroxytoluene	4.92		high

Mobility in soil

Soil/water partition coefficient (Koc)

: 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
DOT Classification	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ZINC DITHIOPHOSPHATE, ALKYLPHENOLS)	9	III	***************************************	8, 146, 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.
IMDG Class	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ZINC DITHIOPHOSPHATE, ALKYLPHENOLS)	9	III	1 1 2 2 2 2 3 3 3 3 3 3 3 3 3 3	Emergency schedules (EmS) F-A, S-F

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Section 14. Transport information IATA-DGR Class UN3082 **ENVIRONMENTALLY** 9 Ш Passenger aircraft Mh **HAZARDOUS** 964: 450 L SUBSTANCE, LIQUID, N.O.S. Cargo aircraft (ZINC 964: 450 L DITHIOPHOSPHATE, ALKYLPHENOLS)

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

SARA Title III Section 313

Toxic Chemicals

Ingredient name

Zinc Alkyldithiophosphate

4259-15-8

Concentration (%)

Ingredient name

: Zinc Alkyldithiophosphate

CAS number 4259-15-8

CAS number

RQ Included in the

25 - 50

regulation but with no data values. See regulation for further details.

Hazardous Subtances (40 CFR 302.4)

State regulations

US EPA CERCLA

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.

Ingredient name	CAS number	State Code	Concentration (%)
Distillates (petroleum), hydrotreated light naphthenic	64742-53-6	MA - S, NJ - HS, PA - RTK HS	10 - ≤25
Distillates (petroleum), hydrotreated light paraffinic	64742-55-8	MA - S, NJ - HS	≤10
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	72623-86-0	MA - S, NJ - HS	≤5
Distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0	MA - S, NJ - HS, PA - RTK HS	≤5
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	72623-87-1	MA - S, NJ - HS	≤5
Zinc Alkyldithiophosphate Butylated Hydroxytoluene Benzenesulfonic acid, mono- C16-24-alkyl derivs., calcium salts	4259-15-8 128-39-2 70024-69-0	NJ - HS, PA - RTK HS	25 - 50 <10 ≤5

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



Section 15. Regulatory information

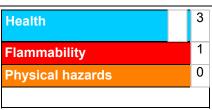
To the best of our knowledge, this product does not contain any of the listed chemicals, which the state of California has found to cause cancer, birth defects or other reproductive harm.

U.S. Toxic Substances : Listed on the TSCA Inventory.

Control Act

Section 16. Other information

Hazardous Material Information System



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

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

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Product Safety and Regulatory Affairs

Indicates information that has changed from previously issued version.

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