according to 29 CFR 1910.1200(g)

ADDINOL Eco Gear GLS 320

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1. Identification

Product identifier

ADDINOL Eco Gear GLS 320

Recommended use of the chemical and restrictions on use

Details of the supplier of the safety data sheet

Manufacturer

Company name: ADDINOL Lube Oil GmbH

Gebäude 4609

Street: Am Haupttor Place: D-06237 Leuna

Telephone: +49 (0) 3461 845-0 Telefax: +49 (0) 3461 845-555

e-mail: info@addinol.de
Contact person: Application Technology
Internet: www.addinol.de

Responsible Department: ADDINOL Application Technology

Supplier

Company name: ADDINOL Lube Oil GmbH
Street: Am Haupttor, D - 06237 Leuna

Telephone: +1 647 939 9938

e-mail: laura.nelson@addinol.de

Emergency phone number: +16479399938 available Mon - Fri, 8:00 am to 4:30 pm EST

2. Hazard(s) identification

Classification of the chemical

29 CFR Part 1910.1200

Respiratory or skin sensitization: Skin Sens. 1

This mixture is classified as hazardous in accordance with Regulation 29 CFR 1910.1200(d).

Label elements

29 CFR Part 1910.1200

Signal word: Warning

Pictograms:



Hazard statements

May cause an allergic skin reaction

Precautionary statements

Avoid breathing dust/fume/gas/mist/vapors/spray.

Contaminated work clothing must not be allowed out of the workplace.

Wear protective gloves/protective clothing/eye protection/face protection.

If on skin: Wash with plenty of water.

If skin irritation or rash occurs: Get medical advice/attention.

Wash contaminated clothing before reuse.

Dispose of contents/container to industrial incineration plant.

Additional advice on labelling

The product is classified and labelled according to EC directives or corresponding national laws.

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Hazards not otherwise classified

Prolonged/repetitive skin contact may cause skin defattening or dermatitis.

Spilled product must not leak into the ground.

Do not allow uncontrolled discharge of product into the environment.

3. Composition/information on ingredients

Mixtures

Hazardous components

| CAS No | Components | Quantity |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 64742-54-7 | Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil - unspecified | 10 - 20 % |
| 68937-96-2 | Di-tert-butyl-Polysulfides | < 2 % |
| | Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) | < 1 % |

Further Information

DMSO-Extrakt < 3 %, IP 346.

Classification system: The classification corresponds to the current US lists and is completed by information from specialist literature and company information.

4. First-aid measures

Description of first aid measures

General information

Self-protection of the first aider. Change contaminated clothing. Do not put any product-impregnated cleaning rags into your trouser pockets.

After inhalation

Move victim to fresh air. Put victim at rest and keep warm. Seek medical attention if problems persist.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Change contaminated clothing. In case of skin irritation, consult a physician.

After contact with eyes

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

After inaestion

Do NOT induce vomiting.

Rinse mouth immediately and drink plenty of water. Call a physician immediately.

Most important symptoms and effects, both acute and delayed

No information available.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO2) Extinguishing powder Water spray jet alcohol resistant foam

Unsuitable extinguishing media

Full water jet

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Specific hazards arising from the chemical

In case of fire, the following may be released: Carbon monoxide Nitrogen oxides (NOx). Sulphur oxides Nitrogen oxides (NOx). carbon black.

Special protective equipment and precautions for fire-fighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Co-ordinate fire-fighting measures to the fire surroundings. Use water spray/stream to protect personnel and to cool endangered containers. In case of fire and/or explosion do not breathe fumes. Contaminated fire-fighting water must be collected separately. Do not allow to enter into surface water or drains.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

General advice

High slip hazard because of leaking or spilled product. Remove all sources of ignition. Wear respiratory protection when in the presence of vapor, dust, and aerosols.

Environmental precautions

Do not allow to enter into surface water or drains. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities. Prevent spread over a wide area (e.g. by containment or oil barriers).

Methods and material for containment and cleaning up

Other information

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Clean contaminated articles and floor according to the environmental legislation.

Reference to other sections

Safe handling: see section 7

Personal protection equipment (PPE): see section 8 Section 12: Ecological Information (non-mandatory)

Disposal: see section 13

7. Handling and storage

Precautions for safe handling

Advice on safe handling

Work in well-ventilated zones or use proper respiratory protection. Avoid oil mist. If handled uncovered, arrangements with local exhaust ventilation have to be used. Avoid contact with skin, eyes and clothes.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking.

Advice on general occupational hygiene

Wash hands before breaks and after work. Take off immediately all contaminated clothing. Wash contaminated clothing prior to re-use. Do not eat, drink, smoke or sneeze at the workplace.

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep the packing dry and well sealed to prevent contamination and absorbtion of humidity. Keep container tightly closed in a cool place. Keep/Store only in original container.

Hints on joint storage

Keep away from food, drink and animal feed.

Keep away from: Oxidizing agents.

Further information on storage conditions

Protect against: UV-radiation/sunlight. Frost. Heat. Recommended storage temperature: 5 - 40°C

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8. Exposure controls/personal protection

Control parameters

Additional advice on limit values

Recommended limit value for oil mist

TWA: 5 STEL: 10

The product does not contain any relevant quantities of substances with legally established exposure limitation.

Exposure controls





Appropriate engineering controls

Provide adequate ventilation as well as local exhaustion at critical locations.

Individual protection measures, such as personal protective equipment

Eye/face protection

Tightly sealed safety glasses. German Industry Norms (DIN) / European Norms (EN): EN 166

Hand protection

Tested protective gloves must be worn: German Industry Norms (DIN) / European Norms (EN): EN ISO 374

Duration of wearing with permanent contact: 480 min

Suitable material: NBR (Nitrile rubber) Thickness of glove material: 0.7 mm.

Wearing time with occasional contact (splashes): 30 min

Suitable material: NBR (Nitrile rubber) Thickness of glove material: 0.4 mm

Protect skin by using skin protective cream.

Skin protection

Wear suitable protective clothing. Change contaminated clothing. Do not put any product-impregnated cleaning rags into your trouser pockets.

Respiratory protection

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Breathing protection with filter against organic gases and vapours type A - boiling point > 65°C: A1: < 1000 ppm; A2: < 5000 ppm; A3: < 10000 ppm

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state: liquid
Color: brownOdor: characteristic
Odour threshold: not determined

Test method

Changes in the physical state

Melting point/freezing point:

No data available

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Boiling point or initial boiling point and not determined

boiling range:

Pour point: $-45 \,^{\circ}\text{C}$ ASTM D 7346 Flash point: $> 235 \,^{\circ}\text{C}$ DIN EN ISO 2592

Flammability

Solid/liquid: No data available
Gas: No data available

Explosive properties

No data available

Lower explosion limits:

Upper explosion limits:

No data available

No data available

Auto-ignition temperature: not determined DIN 51794

Self-ignition temperature

Solid:
Gas:
No data available
No data available
No data available
No data available
PH-Value:
No data available

Viscosity / kinematic: 319 mm²/s ASTM D 7042

(at 40 °C)

Water solubility: practically insoluble

Solubility in other solvents

No data available

Partition coefficient n-octanol/water:

Vapor pressure:

No data available

No data available

Density (at 15 °C): 0,894 g/cm³ DIN 51757

Relative vapour density:

No data available

Other information

Information with regard to physical hazard classes

Oxidizing properties

No data available

Other safety characteristics

Evaporation rate: No data available

Further InformationNo data available

10. Stability and reactivity

Reactivity

The product is stable under storage at normal ambient temperatures.

Chemical stability

Stability: Stable

The mixture is chemically stable under recommended conditions of storage, use and temperature.

Possibility of hazardous reactions

Hazardous reactions: Will not occur

No known hazardous reactions.

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Conditions to avoid

Do not overheat to avoid decomposition by heat.

Refer to chapter 7 No further action is necessary.

Incompatible materials

Reacts with: Oxidizing agents, strong. Acid.

Hazardous decomposition products

In case of fire may be liberated: Carbon monoxide Nitrogen oxides (NOx). Sulphur oxides Nitrogen oxides (NOx). carbon black.

11. Toxicological information

Information on toxicological effects

Acute toxicity

Based on available data, the classification criteria are not met.

Mixture not tested.

| CAS No | Components | | | | | | |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------|---------------------|--------------------|--|--|
| | Exposure route | Dose | Species | Source | Method | | |
| 64742-54-7 | Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil - unspecified | | | | | | |
| | oral | LD50 > 5000 mg/kg |) Rat | Study report (1982) | OECD Guideline 401 | | |
| | dermal | LD50 > 5000 mg/kg | Rabbit | Study report (1982) | OECD Guideline 402 | | |
| | Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) | | | | | | |
| | oral | LD50 > 2000 mg/kg |) Rat | Study report (1995) | OECD Guideline 401 | | |
| | dermal | LD50 > 2000 mg/kg |) Rabbit | | | | |

Irritation and corrosivity

Based on available data, the classification criteria are not met.

Sensitizing effects

May cause an allergic skin reaction (Di-tert-butyl-Polysulfides; Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched))

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

Specific target organ toxicity (STOT) - single exposure

Based on available data, the classification criteria are not met.

Specific target organ toxicity (STOT) - repeated exposure

Based on available data, the classification criteria are not met.

Prolonged/repetitive skin contact may cause skin defattening or dermatitis.

Carcinogenicity (OSHA):

Carcinogenicity (IARC):

No ingredient of this mixture is listed.

Carcinogenicity (NTP):

No ingredient of this mixture is listed.

Aspiration hazard

Based on available data, the classification criteria are not met.

Information on other hazards

Endocrine disrupting properties

not applicable

according to 29 CFR 1910.1200(g)

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Further information

If handled with proper care and at intended use, the product does not cause any harmful effects acc. to our experiences and available information.

12. Ecological information

Ecotoxicity

No data available

Mixture not tested.

Persistence and degradability

Not easily bio-degradable (according to OECD-criteria). Do not allow to enter into surface water or drains.

Bioaccumulative potential

No data available

Mobility in soil

Due to its low solubility in water the product is almost completely mechanically separated in biological sewage plants.

Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

Other adverse effects

No data available

Further information

Do not allow uncontrolled discharge of product into the environment.

13. Disposal considerations

Waste treatment methods

Disposal recommendations

Must not be disposed of with domestic refuse. Do not allow to enter into surface water or drains.

Contaminated packaging

Contaminated packages must be completely emptied and can be re-used following proper cleaning. Dispose of waste according to applicable legislation. Packing which cannot be properly cleaned must be disposed of.

14. Transport information

U.S. DOT 49 CFR 172.101

<u>Proper shipping name:</u> No dangerous good in sense of these transport regulations.

Marine transport (IMDG)

UN number or ID number:
UN proper shipping name:
Transport hazard class(es):
Packing group:
-

Air transport (ICAO-TI/IATA-DGR)

UN number or ID number:

UN proper shipping name:

Transport hazard class(es):

Packing group:

-

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

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Special precautions for user

Unless specified otherwise, general measures for safe transport must be followed.

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

not applicable

Other applicable information

No dangerous good in sense of these transport regulations.

15. Regulatory information

U.S. Regulations

National Inventory TSCA

Substance/product listed in the following inventories: TSCA

National regulatory information

SARA Section 311/312 Hazards:

Di-tert-butyl-Polysulfides (68937-96-2): Immediate (acute) health hazard

Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) (-): Immediate (acute) health hazard

State Regulations

Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)

This product can not expose you to chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

16. Other information

Hazardous Materials Information Label (HMIS)

| Health: | 1 |
|------------------|---|
| Flammability: | 1 |
| Physical Hazard: | 0 |

NFPA Hazard Ratings

| Health: | 1 |
|----------------|---|
| Flammability: | 1 |
| Reactivity: | 0 |
| Unique Hazard: | |

Changes

Revision date: 11.02.2022 Revision No: 1.08

This data sheet contains changes from the previous version in section(s): 2,4,5,6,7,9,10,11,14,15,16.

Abbreviations and acronyms

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ASTM - American Society for the Testing of Materials; ATE - Acute Toxicity Estimates; bw - Body weight; CAO - Cargo Aircraft Only; CAS - Chemical Abstracts Service; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DNEL - Derived No-Effect Level; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); EG - European Union; EN - European standards; 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; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISO - International Organisation for Standardization; LC50 - Lethal Concentration to 50 % of a test population; LD50



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- 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; OECD - Organization for Economic Co-operation and Development; PBT - Persistent, Bioaccumulative and Toxic substance; (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; RID - Regulation concerning the International Carriage of Dangerous Goods by Rail; RQ - Reportable Quantity; SADT - Self- Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Other data

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)