

Safety Data Sheet

ASTRON Hochtemperaturfett EP 2

Revision date: 21.04.2021

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

ASTRON Hochtemperaturfett EP 2

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture

Lubricating agent

Uses advised against

No information available.

1.3. Details of the supplier of the safety data sheet

Company name:	Duran Lubricants & Chemicals GmbH	
Street:	Rodderheide 3-7	
Place:	D-33824 Werther	
Telephone:	+49 (0)5203-901510	Fax: +49 (0)5203-901515
e-mail:	info@durand-oil.com	
Internet:	www.fosser.de	
Responsible Department:	Produktsicherheit / Product Safety	
	info@durand-oil.com	

1.4. Emergency telephone number:

Giftinformationszentrum Nord
(Göttingen)+49 (0)551/19240

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

This mixture is not classified as hazardous in accordance with Regulation (EC) No. 1272/2008.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling

Dilithium adipate
Lithium tetrahydroxyborate

Special labelling of certain mixtures

EUH210 Safety data sheet available on request.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

This product is a lithium complex grease based on mineral oil with additives. The mineral oils in the product contain <3% DMSO-extract (IP 346).

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Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
18621-94-8	Dilithium adipate			2,5 - < 5 %
	242-449-7		01-2120116611-70	
	Acute Tox. 4; H302			
12006-96-1	Lithium tetrahydroxyborate			0,3 - < 1 %
	818-953-3		01-2120772309-47	
	Repr. 2, Acute Tox. 4, Eye Dam. 1; H361d H302 H318			

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
18621-94-8	242-449-7	Dilithium adipate	2,5 - < 5 %
	oral: LD50 = > 300 mg/kg		
12006-96-1	818-953-3	Lithium tetrahydroxyborate	0,3 - < 1 %
	dermal: LD50 = > 2000 mg/kg; oral: LD50 = 500 mg/kg Repr. 2; H361d: >= 7,6 - 100		

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove affected person from the danger area and lay down.
 In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

Provide fresh air. Call a doctor if you feel unwell.

After contact with skin

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

After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

After ingestion

Rinse mouth thoroughly with water.
 Let water be drunk in little sips (dilution effect).
 Do NOT induce vomiting.
 In all cases of doubt, or when symptoms persist, seek medical advice.

4.2. Most important symptoms and effects, both acute and delayed

No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Use water spray jet to protect personnel and to cool endangered containers.

Co-ordinate fire-fighting measures to the fire surroundings.

- alcohol resistant foam.
- Carbon dioxide (CO₂).
- Extinguishing powder

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

In case of fire may be liberated:

- Carbon monoxide (CO)
- Carbon dioxide (CO₂).

5.3. Advice for firefighters

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

In case of fire and/or explosion do not breathe fumes.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Do not allow to enter into soil/subsoil.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures

Special danger of slipping by leaking/spilling product.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

Do not allow to enter into soil/subsoil.

Clean contaminated articles and floor according to the environmental legislation.

6.3. Methods and material for containment and cleaning up

For containment

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

Prevent further leakage or spillage if safe to do so.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Use personal protection equipment.

Do not put any product-impregnated cleaning rags into your trouser pockets.

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Clear spills immediately.
 Handle and open container with care.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep only in the original container in a cool, well-ventilated place.
 Keep container tightly closed.

Hints on joint storage

No special measures are necessary.

Further information on storage conditions

Protect against: Frost, heat.

7.3. Specific end use(s)

Lubricating agent

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
18621-94-8	Dilithium adipate			
Consumer DNEL, long-term		dermal	local	0,023 mg/cm ²
12006-96-1	Lithium tetrahydroxyborate			
Worker DNEL, long-term		inhalation	systemic	7,1 mg/m ³
Worker DNEL, acute		inhalation	systemic	7,1 mg/m ³
Worker DNEL, long-term		dermal	systemic	333 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	1,74 mg/m ³
Consumer DNEL, acute		inhalation	systemic	1,74 mg/m ³
Consumer DNEL, long-term		dermal	systemic	166 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	0,83 mg/kg bw/day
Consumer DNEL, acute		oral	systemic	0,83 mg/kg bw/day

PNEC values

CAS No	Substance	Value
18621-94-8	Dilithium adipate	
Freshwater		0,023 mg/l
Freshwater (intermittent releases)		0,23 mg/l
Marine water		0,002 mg/l
12006-96-1	Lithium tetrahydroxyborate	
Micro-organisms in sewage treatment plants (STP)		44 mg/l

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Additional advice on limit values

To date, no national critical limit values exist.

8.2. Exposure controls

Protective and hygiene measures

Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff.

Eye/face protection

Wear eye/face protection.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection

Use of protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Paste
Colour:	blue
Odour:	characteristic
Odour threshold:	not determined

Test method

pH-Value:	not determined
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Changes in the physical state

Melting point:	not determined
Boiling point or initial boiling point and boiling range:	not determined
Sublimation point:	not determined
Softening point:	not determined
Pour point:	not determined
Flash point:	> 220 °C DIN ISO 2592

Flammability

Solid/liquid:	not applicable
Gas:	not applicable

Explosive properties

The product is not: Explosive.

Lower explosion limits:	not determined
Upper explosion limits:	not determined

Self-ignition temperature

Solid:	not applicable
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Gas: not applicable

Decomposition temperature: not determined

Oxidizing properties

The product is not: oxidising.

Vapour pressure: not determined

Density (at 15 °C): 0,91 g/cm³

Solubility in other solvents

not determined

Partition coefficient n-octanol/water: not determined

Relative vapour density: not determined

Evaporation rate: not determined

9.2. Other information

Solid content: not determined

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Reaction with: Oxidizing agent

10.4. Conditions to avoid

Avoid: Thermal decomposition

10.5. Incompatible materials

Materials to avoid:

- Oxidising agent, strong

10.6. Hazardous decomposition products

Hazardous combustion products:

- Carbon monoxide (CO)
- Carbon dioxide (CO₂)

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

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

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CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
18621-94-8	Dilithium adipate				
	oral	LD50 > 300 mg/kg	Rat	Study report (2015)	OECD Guideline 420
12006-96-1	Lithium tetrahydroxyborate				
	oral	LD50 500 mg/kg		REACH Registration Dossier	
	dermal	LD50 > 2000 mg/kg		REACH Registration Dossier	

Irritation and corrosivity

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

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

The product contains less than 3% DMSO extract (method IP346). A classification as a carcinogen with R45 is deleted. (Note L)

STOT-single exposure

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

STOT-repeated exposure

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

Aspiration hazard

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

11.2. Information on other hazards

Endocrine disrupting properties

No information available.

SECTION 12: Ecological information

12.1. Toxicity

The product is not: Ecotoxic.

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
18621-94-8	Dilithium adipate					
	Acute fish toxicity	LC50 > 100 mg/l	96 h	Cyprinus carpio	Study report (2015)	OECD Guideline 203
	Acute algae toxicity	ErC50 23 mg/l	72 h	Pseudokirchneriella subcapitata	Study report (2015)	OECD Guideline 201
	Acute crustacea toxicity	EC50 > 100 mg/l	48 h	Daphnia magna	Study report (2015)	OECD Guideline 202
12006-96-1	Lithium tetrahydroxyborate					
	Acute fish toxicity	LC50 > 100 mg/l	96 h		REACH Registration Dossier	
	Acute algae toxicity	ErC50 > 100 mg/l	72 h		REACH Registration Dossier	
	Acute crustacea toxicity	EC50 > 100 mg/l	48 h		REACH Registration Dossier	

12.2. Persistence and degradability

The product has not been tested.

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
18621-94-8	Dilithium adipate	< 0,11

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The product has not been tested.

12.6. Endocrine disrupting properties

No information available.

12.7. Other adverse effects

No information available.

Further information

Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

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SECTION 14: Transport information

Land transport (ADR/RID)

<u>14.1. UN number:</u>	No dangerous good in sense of this transport regulation.
<u>14.2. UN proper shipping name:</u>	No dangerous good in sense of this transport regulation.
<u>14.3. Transport hazard class(es):</u>	No dangerous good in sense of this transport regulation.
<u>14.4. Packing group:</u>	No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)

<u>14.1. UN number:</u>	No dangerous good in sense of this transport regulation.
<u>14.2. UN proper shipping name:</u>	No dangerous good in sense of this transport regulation.
<u>14.3. Transport hazard class(es):</u>	No dangerous good in sense of this transport regulation.
<u>14.4. Packing group:</u>	No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

<u>14.1. UN number:</u>	No dangerous good in sense of this transport regulation.
<u>14.2. UN proper shipping name:</u>	No dangerous good in sense of this transport regulation.
<u>14.3. Transport hazard class(es):</u>	No dangerous good in sense of this transport regulation.
<u>14.4. Packing group:</u>	No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

<u>14.1. UN number:</u>	No dangerous good in sense of this transport regulation.
<u>14.2. UN proper shipping name:</u>	No dangerous good in sense of this transport regulation.
<u>14.3. Transport hazard class(es):</u>	No dangerous good in sense of this transport regulation.
<u>14.4. Packing group:</u>	No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

14.7. Maritime transport in bulk according to IMO instruments

No dangerous good in sense of this transport regulation.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulatory information

2004/42/EC (VOC):	0%
Information according to 2012/18/EU (SEVESO III):	Not subject to 2012/18/EU (SEVESO III)

National regulatory information

Water hazard class (D): 1 - slightly hazardous to water

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

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Changes

This data sheet contains changes from the previous version in section(s): 2,3,4,5,6,7,8,9,10,11,12,13,15,16.

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%
CLP: Classification, labelling and Packaging
REACH: Registration, Evaluation and Authorization of Chemicals
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
UN: United Nations
DNEL: Derived No Effect Level
DMEL: Derived Minimal Effect Level
PNEC: Predicted No Effect Concentration
ATE: Acute toxicity estimate
LL50: Lethal loading, 50%
EL50: Effect loading, 50%
EC50: Effective Concentration 50%
ErC50: Effective Concentration 50%, growth rate
NOEC: No Observed Effect Concentration
BCF: Bio-concentration factor
PBT: persistent, bioaccumulative, toxic
vPvB: very persistent, very bioaccumulative
RID: Regulations concerning the international carriage of dangerous goods by rail
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation
intérieures)
EmS: Emergency Schedules
MFAG: Medical First Aid Guide
ICAO: International Civil Aviation Organization
MARPOL: International Convention for the Prevention of Marine Pollution from Ships
IBC: Intermediate Bulk Container
SVHC: Substance of Very High Concern
For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>

Relevant H and EUH statements (number and full text)

H302	Harmful if swallowed.
H318	Causes serious eye damage.
H361d	Suspected of damaging the unborn child.
EUH210	Safety data sheet available on request.

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

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