

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) and Regulation (EU) No. 2015/830



Grinding Oil 412 ALU

Product number 155

Revision date: 6/8/2020
Version: 10

Language: en-GB,DE,FR,IE

Date of print: 10/8/2020
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: Grinding Oil 412 ALU
This safety data sheet pertains to the following products:
Article number: 42200007 - GRINDING OIL 412 ALU

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

General use: Non water-soluble cooling lubricant
For industrial purposes only

1.3 Details of the supplier of the safety data sheet

Company name: August Rueggeberg GmbH & Co. KG
PFERD-Werkzeuge
Street/POB-No.: Hauptstraße 13
Postal Code, city: 51709 Marienheide
WWW: www.pferd.com
E-mail: info@pferd.com
Telephone: +49 (0)2264-9-0
Telefax: +49 (0)2264-9-400
Department responsible for information:
Telephone: +49 (0) 2264-9-0

1.4 Emergency telephone number

Germany: 0800-181-5313
Austria: 0800-802278
France: 0805-089352
Italy: 800-794-834
Bulgaria: 359-32571722
Poland: +48-223073296
Sweden: 020-889-215
Greece: 30-2111981153
Portugal: 800 250 250
Other EU-Countries: 1-813-248-0585

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to EC regulation 1272/2008 (CLP)

Aerosol 1; H222; H229 Extremely flammable aerosol. Pressurised container: May burst if heated.
Asp. Tox. 1; H304 May be fatal if swallowed and enters airways.
(EUH066) Repeated exposure may cause skin dryness or cracking.

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2.2 Label elements

Labelling (CLP)



Signal word:

Danger

Hazard statements: H222 Extremely flammable aerosol.
H229 Pressurised container: May burst if heated.
EUH066 Repeated exposure may cause skin dryness or cracking.

Precautionary Statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Do not pierce or burn, even after use.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

2.3 Other hazards

Potentially explosive mixtures may form if adequate ventilation is not provided.
Inhaling can lead to irritations of the respiratory tract and mucous membrane.
Higher doses may lead to a narcotic effect.

Results of PBT and vPvB assessment:

No data available

SECTION 3: Composition / information on ingredients

3.1 Substances: not applicable

3.2 Mixtures

Chemical characterisation: Isoparaffinic hydrocarbon compound and synthetic esters.

Hazardous ingredients:

Ingredient	Designation	Content	Classification
EC No. 292-460-6 CAS 90622-58-5	Alkanes, C11-15, iso-	50 - 60 %	Asp. Tox. 1; H304. (EUH066).
REACH 01-2119474691-32-xxxx EC No. 203-448-7 CAS 106-97-8	n-Butane, pure	25 - 35 %	Flam. Gas 1; H220. Press. Gas (Liq.); H280.
REACH 01-2119486944-21-xxxx EC No. 200-827-9 CAS 74-98-6	Propane	6 - 8 %	Flam. Gas 1; H220. Press. Gas (Liq.); H280.
REACH 01-2119485395-27-xxxx EC No. 200-857-2 CAS 75-28-5	i-butane; <0,1% butadiene	< 5 %	Flam. Gas 1; H220. Press. Gas (Liq.); H280.

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

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SECTION 4: First aid measures

4.1 Description of first aid measures

- General information: IF exposed or concerned: Get medical advice/attention.
First aider: Pay attention to self-protection!
- In case of inhalation: Move victim to fresh air, put at rest and loosen restrictive clothing.
If you feel unwell, seek medical advice.
- Following skin contact: Remove residues with soap and water. Take off contaminated clothing and wash it before reuse. In case of skin reactions, consult a physician.
- After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. In case of eye irritation consult an ophthalmologist.
- After swallowing: Do not induce vomiting. Rinse mouth and seek medical attention immediately.

4.2 Most important symptoms and effects, both acute and delayed

Inhaling can lead to irritations of the respiratory tract and mucous membrane.
Higher doses may lead to a narcotic effect.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media: Water spray jet, foam, extinguishing powder, carbon dioxide.
- Extinguishing media which must not be used for safety reasons: Full water jet

5.2 Special hazards arising from the substance or mixture

Extremely flammable aerosol. Pressurised container: May burst if heated.
In case of fire may be liberated: carbon monoxide and carbon dioxide.

5.3 Advice for firefighters

- Special protective equipment for firefighters: Wear self-contained positive pressure breathing apparatus and full firefighting protective clothing.
- Additional information: Hazchem-Code: -
- Heating will lead to pressure increase: Danger of bursting and explosion. Use fine water spray to cool endangered containers.
Move undamaged containers from immediate hazard area if it can be done safely.
In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.
- Do not allow fire water to penetrate into surface or ground water.
Fire residuals and contaminated extinguishing water must be disposed of in accordance with the regulations of the local authorities.

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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Do not breathe spray. Avoid contact with the substance.
Eliminate all ignition sources if safe to do so. Provide adequate ventilation.
Wear appropriate protective equipment. Take off contaminated clothing and wash it before reuse. Keep unprotected people away.
Cordon off downwind area at risk and warn inhabitants.

6.2 Environmental precautions

Do not allow to enter into ground-water, surface water or drains. Danger of explosion!
In case of release, notify competent authorities.

6.3 Methods and material for containment and cleaning up

Soak up with absorbent materials such as sand, siliceous earth, acid- or universal binder.
Store in special closed containers and dispose of according to ordinance.

6.4 Reference to other sections

Refer additionally to section 8 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed. Do not breathe spray. Do not get in eyes, on skin, or on clothing. Wear appropriate protective equipment.
Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Take off contaminated clothing and wash it before reuse.
Guarantee sufficient ventilation during and after use, in order to prevent vapour accumulation.
Have eye wash bottle or eye rinse ready at work place.

Precautions against fire and explosion:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not pierce or burn, even after use. Do not spray on an open flame or other ignition source.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

Keep container tightly closed and in a well-ventilated place.
Keep container dry. Keep only in the original container.
Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
Store containers in upright position.

Hints on joint storage: Keep away from food, drink and animal feedingstuffs. Do not store together with: oxidizing agents

Storage class: 2B = Aerosols

7.3 Specific end use(s)

No information available.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
90622-58-5	Alkanes, C11-15, iso-	France: VLE	1500 mg/m ³ (hydrocarbons C9-C12)
		France: VME	1000 mg/m ³ (hydrocarbons C9-C12)
		Germany: TRGS 900 Kurzzeit	600 mg/m ³ (C9-C14 Aliphaten)
		Germany: TRGS 900 Langzeit	300 mg/m ³ (C9-C14 Aliphaten)
		Great Britain: WEL-TWA	1200 mg/m ³ (> or = C7, Normal and branched chain alkanes)
		Great Britain: WEL-TWA	800 mg/m ³ (> or = C7, Cycloalkanes)
106-97-8	n-Butane, pure	France: VME	1900 mg/m ³ ; 800 ppm
		Germany: TRGS 900 Kurzzeit	9600 mg/m ³ ; 4000 ppm
		Germany: TRGS 900 Langzeit	2400 mg/m ³ ; 1000 ppm
		Great Britain: WEL-STEL	1810 mg/m ³ ; 750 ppm
		Great Britain: WEL-TWA	1450 mg/m ³ ; 600 ppm
74-98-6	Propane	Ireland: 8 hours	1000 ppm
		Germany: TRGS 900 Kurzzeit	7200 mg/m ³ ; 4000 ppm
		Germany: TRGS 900 Langzeit	1800 mg/m ³ ; 1000 ppm
75-28-5	i-butane; <0,1% butadiene	Ireland: 8 hours	1000 ppm
		Germany: TRGS 900 Kurzzeit	9600 mg/m ³ ; 4000 ppm
		Germany: TRGS 900 Langzeit	2400 mg/m ³ ; 1000 ppm
		Ireland: 15 minutes	1000 ppm

Additional information: Observe in addition any national exposure limit values!

8.2 Exposure controls

Provide for good ventilation or exhaust system or work with completely self-contained equipment.

Personal protection equipment

Occupational exposure controls

Respiratory protection: Respiratory protection must be worn whenever the WEL levels have been exceeded. Use filter type A (= against vapours of organic substances) according to EN 14387. If higher concentrations occur: Wear self-contained breathing apparatus.

Hand protection: Protective gloves according to EN 374. Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Eye protection: Tightly sealed goggles according to EN 166.

Body protection: Flame retardant, antistatic and chemical resistant protective clothing.

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General protection and hygiene measures:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Do not pierce or burn, even after use. Do not spray on an open flame or other ignition source.
Do not breathe spray. Do not get in eyes, on skin, or on clothing.
When using do not eat or drink. Contaminated work clothing should not be allowed out of the workplace. Wash hands thoroughly after handling. Take off contaminated clothing and wash it before reuse.
Have eye wash bottle or eye rinse ready at work place.

Environmental exposure controls

Refer to "6.2 Environmental precautions".

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Physical state at 20 °C and 101.3 kPa: liquid Form: Aerosol Colour: yellow
Odour:	weak characteristic
Odour threshold:	No data available
pH value:	No data available
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	No data available
Flash point/flash point range:	No data available
Evaporation rate:	No data available
Flammability:	Extremely flammable aerosol.
Explosion limits:	No data available
Vapour pressure:	No data available
Vapour density:	No data available
Density:	at 20 °C: 0.713 g/mL
Solubility:	No data available
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity, kinematic:	No data available
Explosive properties:	Vapours can form explosive mixtures with air.
Oxidizing characteristics:	No data available

9.2 Other information

Additional information: No data available

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SECTION 10: Stability and reactivity

10.1 Reactivity

Extremely flammable aerosol.
Vapours can form explosive mixtures with air.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Pressurised container: May burst if heated.

10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not pierce or burn, even after use. Do not spray on an open flame or other ignition source. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

No hazardous decomposition products when regulations for storage and handling are observed.

Thermal decomposition: No data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Toxicological effects: The statements are derived from the properties of the single components. No toxicological data is available for the product as such.

Acute toxicity (oral): Lack of data.

Acute toxicity (dermal): Lack of data.

Acute toxicity (inhalative): Lack of data.

Skin corrosion/irritation: Lack of data.

Serious eye damage/irritation: Lack of data.

Sensitisation to the respiratory tract: Lack of data.

Skin sensitisation: Lack of data.

Germ cell mutagenicity/Genotoxicity: Lack of data.

Carcinogenicity: Lack of data.

Reproductive toxicity: Lack of data.

Effects on or via lactation: Lack of data.

Specific target organ toxicity (single exposure): Lack of data.

Specific target organ toxicity (repeated exposure): Lack of data.

Aspiration hazard: Asp. Tox. 1; H304 = May be fatal if swallowed and enters airways.

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Other information: Information about Propane:
Acute inhalation toxicity
LC50, Rat: > 20 mg/L/4h
Information about Butane:
Acute inhalation toxicity
LC50, Rat: 658 mg/L/4h
Vapours in high concentrations have anaesthetic effect.

Symptoms

In case of inhalation:
n-Butane: In case of prolonged exposure: Nausea, drowsiness, headache, agitation, fatigue, dizziness, unconsciousness. In case of high vapour concentrations: CNS disorders, unconsciousness.
Even short-term inhalation of larger quantities of gas may cause death. Risk of suffocation!
After contact with skin: Repeated exposure may cause skin dryness or cracking.
n-Butane: Danger of freezing: Whitening of skin (skin emphysema).
After eye contact: n-Butane: Frostbite: Risk of serious damage to eyes.

SECTION 12: Ecological information

12.1 Toxicity

Water Hazard Class: 1 = slightly hazardous to water

12.2 Persistence and degradability

Further details: No data available

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water:
No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

General information: Do not allow to enter into ground-water, surface water or drains.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Waste key number: 16 05 04* = Gases in pressure containers (including halons) containing hazardous substances

* = Evidence for disposal must be provided.

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Recommendation: Do not pierce or burn, even after use.
Special waste. Dispose of waste according to applicable legislation.
Do not dispose of with household waste.

Contaminated packaging

Waste key number: 15 01 10* = packaging containing residues of or contaminated by dangerous substances
* = Evidence for disposal must be provided.

Recommendation: Dispose of waste according to applicable legislation.
Empty carefully and completely, if possible. Handle empty containers with care.
Incineration may cause explosion.

SECTION 14: Transport information

14.1 UN number

ADR/RID, IMDG, IATA-DGR:
UN 1950

14.2 UN proper shipping name

ADR/RID, IMDG: UN 1950, AEROSOLS
IATA-DGR: UN 1950, AEROSOLS, FLAMMABLE

14.3 Transport hazard class(es)

ADR/RID: Class 2, Code: 5F
IMDG: Class 2.1, Subrisk -
IATA-DGR: Class 2.1



14.4 Packing group

ADR/RID, IATA-DGR: not applicable
IMDG: -

14.5 Environmental hazards

Marine pollutant: no

14.6 Special precautions for user

Land transport (ADR/RID)

Warning board: RID: Kemmler-number 23, UN number UN 1950
Hazard label: 2.1
Special provisions: 190 327 344 625
Limited quantities: 1 L
EQ: E0
Contaminated packaging - Instructions: P207 LP200
Contaminated packaging - Special provisions: PP87 RR6 L2
Special provisions for packing together: MP9
Tunnel restriction code: D

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Sea transport (IMDG)

EmS: F-D, S-U
Special provisions: 63, 190, 277, 327, 344, 381, 959
Limited quantities: 1000 mL
Excepted quantities: E0
Contaminated packaging - Instructions: P207, LP200
Contaminated packaging - Provisions: PP87, L2
IBC - Instructions: -
IBC - Provisions: -
Tank instructions - IMO: -
Tank instructions - UN: -
Tank instructions - Provisions: -
Stowage and handling: SW1 SW22
Segregation: SG69
Properties and observations: -
Segregation group: none

Air transport (IATA)

Hazard label: Flamm. gas
Excepted Quantity Code: E0
Passenger and Cargo Aircraft: Ltd.Qty.: Pack.Instr. Y203 - Max. Net Qty/Pkg. 30 kg G
Passenger and Cargo Aircraft: Pack.Instr. 203 - Max. Net Qty/Pkg. 75 kg
Cargo Aircraft only: Pack.Instr. 203 - Max. Net Qty/Pkg. 150 kg
Special provisions: A145 A167 A802
Emergency Response Guide-Code (ERG): 10L

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

No data available

SECTION 15: Regulatory information

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

National regulations - Great Britain

Hazchem-Code: -
No data available

National regulations - Germany

Storage class: 2B = Aerosols
Water Hazard Class: 1 = slightly hazardous to water
Incident regulation: 1.2.3.1 P3a
Technical guidance air: Nr. 5.2.5
Information on working limitations:

Observe employment restrictions for young people.
Observe employment restrictions for expectant or nursing mothers.

National regulations - France

No data available

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National regulations - EC member states

Volatile organic compounds (VOC):

57.98 % by weight = 417 g/L

Further regulations, limitations and legal requirements:

Use restriction according to REACH annex XVII, no.: 3

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]: P3a.

15.2 Chemical Safety Assessment

For this mixture a chemical safety assessment is not required.

SECTION 16: Other information

Further information

Wording of the H-phrases under paragraph 2 and 3:

H220 = Extremely flammable gas.

H222 = Extremely flammable aerosol.

H229 = Pressurised container: May burst if heated.

H280 = Contains gas under pressure; may explode if heated.

H304 = May be fatal if swallowed and enters airways.

EUH066 = Repeated exposure may cause skin dryness or cracking.

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Abbreviations and acronyms:

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
OEL: Occupational Exposure Limit Value
AS/NZS: Australian Standards/New Zealand Standards
CAS: Chemical Abstracts Service
CFR: Code of Federal Regulations
CLP: Classification, Labelling and Packaging
CNS: Central Nervous System
DMEL: Derived minimal effect level
DNEL: Derived no-effect level
EC: European Community
EN: European Standard
EU: European Union
IATA: International Air Transport Association
IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IMDG Code: International Maritime Dangerous Goods Code
LC50: Median lethal concentration
MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
OSHA: Occupational Safety and Health Administration
PBT: Persistent, bioaccumulative and toxic
PNEC: Predicted no-effect concentration
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail
TLV: Threshold Limit Value
UN: United Nations
vPvB: Very persistent and very bioaccumulative
WEL: Workplace Exposure Limit
CNS: Central Nervous System

Reason of change: Changes in section 3: Composition / Information on ingredients
Changes in section 15: Regulatory information
General revision

Date of first version: 7/1/2013

Department issuing data sheet

Contact person: see section 1: Department responsible for information

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.