



# Eni RADULA 68

Material number 2134

## Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH) and Regulation (EU) 2020/878

Revision date: 22.4.2025  
Version: 8.0  
Replaces version: 7.0  
Language: en-DE  
Date of print: 28.4.2025

Page: 1 of 10

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

### 1.1 Product identifier

Trade name: Eni RADULA 68

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

General use: Hydraulic oil, Functional fluids

### 1.3 Details of the supplier of the safety data sheet

Company name: Enilive Schmiertechnik GmbH

Street/POB-No.: Paradiesstraße 14

Postal Code, city: 97080 Würzburg

Germany

E-mail: info.wuerzburg@enilive.com

Telephone: +49 (0)931-90098-0

Telefax: +49 (0)931-98442

Department responsible for information:

Application Engineering & Product Management (AEPM)

Telephone: +49 (0)931-90098-0

E-mail: technik.wuerzburg@enilive.com

### 1.4 Emergency telephone number

GIZ-Nord, Göttingen

Telephone: +49 (0)551-19240

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification according to EC regulation 1272/2008 (CLP)

This mixture is classified as not hazardous.

### 2.2 Label elements

#### Labelling (CLP)

Hazard statements: not applicable

Precautionary statements: not applicable

#### Special labelling

EUH210

Safety data sheet available on request.



# Eni RADULA 68

Material number 2134

## Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH) and Regulation (EU) 2020/878

Revision date: 22.4.2025  
Version: 8.0  
Replaces version: 7.0  
Language: en-DE  
Date of print: 28.4.2025

Page: 2 of 10

### 2.3 Other hazards

Special danger of slipping by leaking/spilling product.

Endocrine disrupting properties, Results of PBT and vPvB assessment:

This product does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% (w/w) or higher. The product contains no components classified as PBT or as vPvB at concentrations of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

3.1 Substances: not applicable

### 3.2 Mixtures

Chemical characterisation: A mixture of hydrocarbons and additives.

Hazardous ingredients:

Identifiers	Designation Classification	Content
REACH 01-2119487067-30-xxxx EC No. 265-091-3 CAS 64741-89-5	Distillates (petroleum), solvent-refined light paraffinic Asp. Tox. 1; H304.	15 - 20 %

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

Additional information: The highly refined mineral oil contains <3% (w/w) DMSO extract, according to IP346.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

General information:	Take off contaminated clothing and wash it before reuse.
In case of inhalation:	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Seek medical attention.
Following skin contact:	After contact with skin, wash immediately with soap and plenty of water. In case of skin reactions, consult a physician. Following fire: Apply bandage with sterile gauze. Immediately get medical attention.
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:	Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Do not induce vomiting. Immediately get medical attention.

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

In case of inhalation: Irritation to respiratory tract, nausea, dizziness.

In case of ingestion: Irritation, nausea, discomfort, gastrointestinal irritation.

After contact with skin: Hot product can cause severe burns.

After eye contact: Direct contact with eyes may cause temporary irritation.



# Eni RADULA 68

Material number 2134

## Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH) and Regulation (EU) 2020/878

Revision date: 22.4.2025  
Version: 8.0  
Replaces version: 7.0  
Language: en-DE  
Date of print: 28.4.2025

Page: 3 of 10

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

Treat symptomatically.

It can take hours before symptoms of poisoning show up following exposure.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media:

Water spray jet, foam, extinguishing powder, carbon dioxide.

In case of large fires: Water spray jet, foam.

Extinguishing media which must not be used for safety reasons:

Full water jet.

### 5.2 Special hazards arising from the substance or mixture

Combustible.

May form dangerous gases and vapours in case of fire.

Vapours are heavier than air, spread along floors and form explosive mixtures with air.

Furthermore, there may develop: 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:

Use fine water spray to cool endangered containers. Move undamaged containers from immediate hazard area if it can be done safely.

Contaminated fire-fighting water must be collected separately. Do not allow water used to extinguish fire to enter drains, ground or waterways.

Fire residuals and contaminated extinguishing water must be disposed of in accordance with the regulations of the local authorities.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Do not breathe mist/vapours/spray. Avoid oil mist formation. Provide adequate ventilation.

Eliminate all ignition sources if safe to do so.

Wear appropriate protective equipment. Take off contaminated clothing and wash it before reuse. Avoid contact with skin, eyes, and clothing. Keep unprotected people away.

### 6.2 Environmental precautions

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

If necessary, notify appropriate authorities.

### 6.3 Methods and material for containment and cleaning up

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

Make sure spills can be contained, e.g. in sump pallets or kerbed areas.

Never return spills in original containers for re-use.

Clean contaminated articles and floor according to the environmental legislation.

Additional information:

Special danger of slipping by leaking/spilling product.



# Eni RADULA 68

Material number 2134

## Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH) and Regulation (EU) 2020/878

Revision date: 22.4.2025  
Version: 8.0  
Replaces version: 7.0  
Language: en-DE  
Date of print: 28.4.2025

Page: 4 of 10

### 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 mist/vapours/spray.  
Avoid oil mist formation. Do not get in eyes, on skin, or on clothing. Wear appropriate protective equipment. Take off contaminated clothing and wash it before reuse. Do not put any product-impregnated cleaning rags into your trouser pockets.  
Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

Precautions against fire and explosion:  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
Take action to prevent static discharges.

### 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:  
Store container tightly closed in a dry and cool place.  
Store only in original container.  
Make sure spills can be contained, e.g. in sump pallets or kerbed areas.  
Protect from heat and direct sunlight.

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

Storage class: 10 = Combustible liquids that cannot be assigned to any of the above storage classes

### 7.3 Specific end use(s)

No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Additional information: Contains no substances with occupational exposure limit values.

DNEL/DMEL: Information about Distillates (petroleum), solvent-refined light paraffinic (CAS 64741-89-5):  
DNEL, workers, inhalative, systemic, long-term: 2,73 mg/m<sup>3</sup>  
DNEL, workers, inhalative, local, long-term: 5,58 mg/m<sup>3</sup>  
DNEL, workers, dermal, systemic, long-term: 0,97 mg/kg bw/d  
DNEL, consumers, oral, systemic, long-term: 0,74 mg/kg bw/d

PNEC: Information about Distillates (petroleum), solvent-refined light paraffinic (CAS 64741-89-5):  
PNEC, Secondary Poisoning: 9,33 mg/kg Food

### 8.2 Exposure controls

Provide good ventilation and/or an exhaust system in the work area.



# Eni RADULA 68

Material number 2134

## Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH) and Regulation (EU) 2020/878

Revision date: 22.4.2025  
Version: 8.0  
Replaces version: 7.0  
Language: en-DE  
Date of print: 28.4.2025

Page: 5 of 10

### Personal protection equipment

#### Occupational exposure controls

- Respiratory protection: In case of inadequate ventilation wear respiratory protection. Use combination filter type A/P according to EN 14387.  
The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product.
- Hand protection: Protective gloves according to DIN EN ISO 374-1.  
Glove material: Nitrile rubber (NBR), PVC  
Breakthrough time:  $\geq 240$  min  
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.
- Eye protection: Tightly sealed goggles according to DIN EN ISO 16321-1.
- Body protection: Wear suitable protective clothing.
- General protection and hygiene measures: Do not breathe mist/vapours/spray. Take off contaminated clothing and wash it before reuse. Avoid contact with skin, eyes, and clothing. Avoid oil mist formation. Do not put any product-impregnated cleaning rags into your trouser pockets. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Protect skin by using skin protective cream.

#### Environmental exposure controls

Refer to "6.2 Environmental precautions".

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state at 20 °C and 101.3 kPa	liquid
Colour:	yellow - brown, clear
Odour:	like petroleum (weak)
Melting point/freezing point:	No data available
Boiling point:	No data available
Flammability:	This product is non-flammable.
Lower and upper explosion limit:	No data available
Flash point:	203 °C (ASTM D 92)
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
pH:	Not applicable
Kinematic viscosity:	at 40 °C: 68 mm <sup>2</sup> /s (ASTM D 445)
Water solubility:	Insoluble
Partition coefficient n-octanol/water (log value):	No data available
Vapour pressure:	No data available
Density:	at 15 °C: 0,885 g/mL (ASTM D 4052)
Relative vapour density:	No data available
Particle characteristics:	Not applicable

### 9.2 Other information

Explosive properties:	No data available
Oxidizing characteristics:	No data available



# Eni RADULA 68

Material number 2134

## Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH) and Regulation (EU) 2020/878

Revision date: 22.4.2025  
Version: 8.0  
Replaces version: 7.0  
Language: en-DE  
Date of print: 28.4.2025

Page: 6 of 10

Auto-ignition temperature: No data available  
Evaporation rate: Negligible (Butyl acetate = 1)  
Additional information: Setting point: -18 °C (ASTM D 97)

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Refer to subsection "Possibility of hazardous reactions".

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

Reacts with: Strong oxidizing agents, alkali metals. Risk of fire.

### 10.4 Conditions to avoid

Keep away from heat sources, sparks and open flames. Protect from direct sunlight.

### 10.5 Incompatible materials

Strong oxidizing agents, alkali metals.

### 10.6 Hazardous decomposition products

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

Thermal decomposition: No data available



# Eni RADULA 68

Material number 2134

## Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH) and Regulation (EU) 2020/878

Revision date: 22.4.2025  
Version: 8.0  
Replaces version: 7.0  
Language: en-DE  
Date of print: 28.4.2025

Page: 7 of 10

## SECTION 11: Toxicological information

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

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

Acute toxicity (dermal): Based on available data, the classification criteria are not met.

Acute toxicity (inhalative): Based on available data, the classification criteria are not met.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/irritation: Based on available data, the classification criteria are not met.

Sensitisation to the respiratory tract: Based on available data, the classification criteria are not met.

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

Germ cell mutagenicity/Genotoxicity: Based on available data, the classification criteria are not met.

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

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

Effects on or via lactation: Lack of data.

Specific target organ toxicity (single exposure): Based on available data, the classification criteria are not met.

Specific target organ toxicity (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:

None

Other information:

Information about Distillates (petroleum), solvent-refined light paraffinic (CAS 64741-89-5):  
LD50 Rat, oral: > 5.000 mg/kg (OECD 401)  
LD50 Rabbit, dermal: > 5.000 mg/kg (OECD 402)  
LC50 Rat, inhalative (dusts/mist): > 5,53 mg/L/4h (OECD 403)

### Symptoms

In case of inhalation: Irritation to respiratory tract, nausea, dizziness.

In case of ingestion: Irritation, nausea, discomfort, gastrointestinal irritation.

After contact with skin: Hot product can cause severe burns.

After eye contact: Direct contact with eyes may cause temporary irritation.



# Eni RADULA 68

Material number 2134

## Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH) and Regulation (EU) 2020/878

Revision date: 22.4.2025  
Version: 8.0  
Replaces version: 7.0  
Language: en-DE  
Date of print: 28.4.2025

Page: 8 of 10

## SECTION 12: Ecological information

### 12.1 Toxicity

Aquatic toxicity: Information about Distillates (petroleum), solvent-refined light paraffinic (CAS 64741-89-5):  
Fish toxicity:  
LL50 Pimephales promelas (fathead minnow): > 100 mg/L/96h (OECD 203)  
Daphnia toxicity:  
EL50 Daphnia magna (Big water flea): > 10.000 mg/L/48h (OECD 202)  
Algae toxicity:  
NOEL Pseudokirchneriella subcapitata (green algae):  $\geq$  100 mg/L/72h (OECD 201)  
Water Hazard Class: 1 = slightly hazardous to water (Self-classification (mixture).)  
Further details: Outflowing product can lead to the formation of a film on the water surface, which reduces oxygen exchange and may result in the death of organisms.

### 12.2 Persistence and degradability

Further details: Product is not readily biodegradable. Inherently biodegradable.  
Information about Distillates (petroleum), solvent-refined light paraffinic (CAS 64741-89-5):  
Biodegradability: 31%/28d. Not easily bio-degradable, inherently biodegradable.

### 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

The product contains no components classified as PBT or as vPvB at concentrations of 0.1% or higher.

### 12.6 Endocrine disrupting properties

None

### 12.7 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: 13 02 05\* = Mineral-based non-chlorinated engine, gear and lubricating oils  
\* = Evidence for disposal must be provided.

Recommendation: Dispose of waste according to applicable legislation.

#### Package

Recommendation: Dispose of waste according to applicable legislation. Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.





# Eni RADULA 68

Material number 2134

## Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH) and Regulation (EU) 2020/878

Revision date: 22.4.2025  
Version: 8.0  
Replaces version: 7.0  
Language: en-DE  
Date of print: 28.4.2025

Page: 9 of 10

## Section 14. Transport information

### 14.1 UN number or ID number

ADR/RID, ADN, IMDG, IATA-DGR:

not applicable

### 14.2 UN proper shipping name

ADR/RID, ADN, IMDG, IATA-DGR:

Not restricted

### 14.3 Transport hazard class(es)

ADR/RID, ADN, IMDG, IATA-DGR:

not applicable

### 14.4 Packing group

ADR/RID, ADN, IMDG, IATA-DGR:

not applicable

### 14.5 Environmental hazards

Dangerous for the environment:

Substance/mixture is not environmentally hazardous according to the criteria of the UN model regulations.

Marine pollutant - IMDG:

no

### 14.6 Special precautions for user

No dangerous good in sense of these transport regulations.

### 14.7 Maritime transport in bulk according to IMO instruments

No data available

## SECTION 15: Regulatory information

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

#### National regulations - Germany

Storage class: 10 = Combustible liquids that cannot be assigned to any of the above storage classes

Water Hazard Class: 1 = slightly hazardous to water (Self-classification (mixture).)

Technical guidance air: 5.2.5

Further regulations, limitations and legal requirements:

No data available

#### National regulations - EC member states

##### Labelling of packaging with ≤ 125mL content

Hazard statements: EUH210 Safety data sheet available on request.

Precautionary statements: not applicable

Further regulations, limitations and legal requirements:

No data available



# Eni RADULA 68

Material number 2134

## Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH) and Regulation (EU) 2020/878

Revision date: 22.4.2025  
Version: 8.0  
Replaces version: 7.0  
Language: en-DE  
Date of print: 28.4.2025

Page: 10 of 10

## 15.2 Chemical Safety Assessment

For this mixture a chemical safety assessment is not required.

## SECTION 16: Other information

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

H304 = May be fatal if swallowed and enters airways.

EUH210 = Safety data sheet available on request.

Reason of change:

Changes in section 3: Composition / Information on ingredients

Changes in section 9: Physical and chemical properties

Changes in section 11, 12: Endocrine disrupting properties

Changes in section 15: Regulatory information

General revision

Date of first version:

21.12.2022

Department issuing data sheet:

see section 1: Department responsible for information

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

AS/NZS: Australian Standards/New Zealand Standards

Asp. Tox.: Aspiration toxicity

CAS: Chemical Abstracts Service

CFR: Code of Federal Regulations

CLP: Classification, Labelling and Packaging

DMEL: Derived minimal effect level

DNEL: Derived no-effect level

EC: European Community

EL50: Effective loading rate 50%

EmS: Emergency Response Procedures for Ships Carrying Dangerous Goods

EN: European Standard

EQ: Excepted quantities

EU: European Union

IATA: International Air Transport Association

IATA-DGR: International Air Transport Association – Dangerous Goods Regulations

IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk

IMDG Code: International Maritime Dangerous Goods Code

IMO: International Maritime Organization

LC50: Median lethal concentration

LD50: Lethal dose 50%

MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships

NOEL: No Observed Effect Level

OECD: Organisation for Economic Co-operation and Development

OSHA: Occupational Safety and Health Administration

PBT: Persistent, bioaccumulative and toxic

PNEC: Predicted no-effect concentration

PVC: Polyvinyl chloride

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals

RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail

TRGS: Technical Rules for Hazardous Substances

vPvB: Very persistent and very bioaccumulative

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.

Most recent product information is available at:  
<http://sumdat.net/6sphggyu>

