

SAFETY DATA SHEET

According to REACH, Commission Regulation (EU) 2015/830 of 28 May 2015

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name	Functional RD-540
Chemical Family	Lubricant Additive
Product Use	Rock Drilling Oil Additive
CAS Registry Number	Mixture
Revision Date	August 08, 2019

Manufacturer: Functional Products, Inc.
8282 Bavaria Road
Macedonia, Ohio 44056, USA
Tel (USA): + 1 330-963-3060
Fax (USA): + 1 330-963-3322
E-mail: SDS@functionalproducts.com

European Supplier: Lumar Quimica S.L.U.
Milanesat, 25-27, 4t. 1a.
08017 Barcelona
Spain
Tel: + 34 93 594 75 00
Fax: + 34 93 594 75 01
E-mail: lumar@lumarquimica.com

Emergency Phone Numbers:
United States: + 330-963-3060 (8:00AM-5:00PM EST)
Europe + 34 93 594 75 00 (08:00 -13:00 14:00-17:00)
France (ORFILA): + 33 (0)1 45 42 59 59

Section 2: HAZARDS IDENTIFICATION

2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

EC regulation criteria 1272/2008 (CLP)



Warning

Skin Sens: Category 1 - May cause an allergic skin reaction.
Aquatic Chronic Category 3 - Harmful to aquatic life with long lasting effects
Adverse physicochemical, human health and environmental effects:
No other hazards

2.2 LABEL ELEMENTS

EC regulation criteria 1272/2008 (CLP)

Symbols:



Warning

Hazard statements:

H317 - May cause an allergic skin reaction.

H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements:

P272 - Contaminated work clothing should not be allowed out of the workplace.

P273 - Avoid release to the environment.

P280 - Wear protective gloves and eye protection.

P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

P501 - Dispose of contents/container in accordance with applicable regulations.

Special Provisions: None

Contents:

1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-ar-methyl

2.3 OTHER ELEMENTS

vPvB Substances: None - PBT Substances: None

Other Hazards: No other hazards

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS



Substance/ Preparation	% (w/w)	CAS #
Mixture	100	Proprietary

3.1. Substances

NA

3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Number	Classification
< 6%	1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-ar-methyl	CAS: 94270-86-7	 3.2/2 Skin Irrit. 2 H315  3.4.2/1-1A-1B Skin Sens. 1,1A,1B H317

Section 4: FIRST-AID MEASURES

4.1. Description of first aid measures

Skin contact: Immediately remove contaminated clothing.

Rinse product off skin immediately with plenty of running water and soap.

Wash thoroughly.

Eye contact: Rinse immediately with plenty of water and seek medical advice.

Ingestion: Do NOT induce vomiting. SEEK MEDICAL ATTENTION IMMEDIATELY!

Inhalation: Remove to fresh air

4.2. Important symptoms and effects, acute and delayed: None

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

In case of accident or illness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment: Treat symptomatically

Section 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: Use CO₂, foam or dry chemicals.

5.2. Hazardous Combustion Products:

Do not inhale explosion and combustion gases. Burning produces heavy smoke.

5.3. Fire-Fighting procedures:

Use suitable breathing apparatus. Collect contaminated fire extinguishing water separately. Do not be discharge into drains.

Move undamaged containers from immediate hazard area.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment

Remove all sources of ignition

Remove persons to safety

See protective measures Sec. 7 and 8

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

In case of gas escape or entry into waterways, soil or drains, inform the responsible authorities.

Use absorbent material for clean-up.

6.3. Methods and material for containment and cleaning up

Wash thoroughly with water

6.4. Reference to other sections

See section 8 and 13

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapors and mists.

Contaminated clothing should be changed before entering eating areas.

See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Store in containers between 5 and 40 ° C.

Keep away from food, drink and feed.

Incompatible materials: NA

Store in well-ventilated area.

7.3. Specific end use(s)

NA

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

No data available

DNEL Exposure Limit Values

NA

PNEC Exposure Limit Values

NA

8.2. Exposure controls

Eye protection: Use safety glasses, goggles or face mask.

Protection for skin: Long sleeve clothing recommended

Protection for hands: Use chemical resistant nitrile or neoprene gloves.

Respiratory protection: Use appropriate respiratory protection if there is the potential for overexposure to fumes.

Environmental exposure controls: None

Appropriate engineering controls: None

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Odor:	Mild	--	--
Odor threshold:	NA	--	--
pH:		--	--
Melting point / freezing point:	NA	--	--
Initial boiling point and boiling range:	NA	--	--
Flash point:	115°C	--	--
Evaporation rate:	NA	--	--
Solid/gas flammability:	NA	--	--
Upper/lower flammability or explosive limits:	NA	--	--
Vapor pressure:	NA	--	--
Vapor density:	NA	--	--
Relative density:	0.98	--	--
Solubility in water:	Insoluble	--	--
Solubility in oil:	NA	--	--
Partition coefficient (n-octanol/water):	NA	--	--
Auto-ignition temperature:	NA	--	--
Decomposition temperature:	NA	--	--
Viscosity:	NA	--	--
Explosive properties:	NA	--	--
Oxidizing properties:	NA	--	--

9.2. Other information

Properties	Value	Method:	Notes:
Miscibility:	NA	--	--
Fat Solubility:	NA	--	--
Conductivity:	NA	--	--
Substance Groups relevant properties	NA	--	--

Section 10: STABILITY AND REACTIVITY

- 10.1. Reactivity: Stable under normal conditions
10.2. Chemical stability: Stable under normal conditions
10.3. Possibility of hazardous reactions: None
10.4. Conditions to avoid: Stable under normal conditions.
10.5. Incompatible materials: NA
10.6. Hazardous decomposition products: None

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Toxicological information of the mixture: NA

Toxicological information of the main substances found in the mixture: NA

Unless specified, the information required in Regulation 453/2010/EC listed below must be considered as NA:

- a) acute toxicity
- b) skin corrosion/irritation
- c) serious eye damage/irritation
- d) respiratory or skin sensitisation
- e) germ cell mutagenicity
- f) carcinogenicity
- g) reproductive toxicity
- h) STOT-single exposure
- i) STOT-repeated exposure
- j) aspiration hazard

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity:

Use good working practices, so that the product is not released into the environment.

12.2. Persistence and degradability:

1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-ar-methyl - CAS: 94270-86-7

12.3. Bioaccumulative potential:

1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-ar-methyl - CAS: 94270-86-7

12.4. Mobility in soil:

1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-ar-methyl - CAS: 94270-86-7

12.5. Results of PBT and vPvB assessment:

vPvB Substances: None - PBT Substances: None

12.6. Other adverse effects: None

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods:

Recover if possible. Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: TRANSPORTATION INFORMATION

U.S DOT Bulk Not regulated
U.S. DOT Non-Bulk Not regulated
IMDG Code Not regulated
ICAO Not regulated
ADR/RID Hazard Class Not regulated

14.1. UN number: Not classified as dangerous

14.2. UN proper shipping name: NA

14.3. Transport hazard class(es): NA

14.4. Packing group: NA

14.5. Environmental hazards:

ADR-Environmental Pollutant: No

IMDG-Marine pollutant: No

14.6. Special precautions for user: NA

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: NA

Section 15: REGULATORY INFORMATION

U.S. TSCA Inventory: Yes
Other TSCA Reg.: No
SARA EXT. HAZ. SUBS: No
SARA Section 313: No
CERCLA: No
CAL. PROP. 65: No
Japan MITI Listed - MITI
Australia Listed - AICS
Europe Listed - EINECS
Polymers are exempt from EINECS inventory
China Listed - IECSC
Canada Listed - DSL
WHMIS – not controlled.
Korea Listed - KECI
New Zealand Listed - NZIoC
Philippines Listed – PICCS

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

Dir. 98/24/EC (Risks related to chemical agents at work)

Dir. 2000/39/EC (Occupational exposure limit values)

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EC) n. 1272/2008 (CLP)

Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
Regulation (EU) n. 453/2010 (Annex II)
Regulation (EU) n. 286/2011 (ATP 2 CLP)
Regulation (EU) n. 618/2012 (ATP 3 CLP)
Regulation (EU) n. 487/2013 (ATP 4 CLP)
Regulation (EU) n. 944/2013 (ATP 5 CLP)
Regulation (EU) n. 605/2014 (ATP 6 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product: Restriction 3 Restriction 40

Restrictions related to the substances contained: None

Where applicable, refer to the following regulatory provisions :

Directive 2003/105/CE ('Activities linked to risks of serious accidents') and subsequent amendments.

Regulation (EC) nr 648/2004 (detergents). 1999/13/EC (VOC directive)

Provisions related to directives 82/501/EC(Seveso), 96/82/EC(Seveso II): NA

15.2. Chemical safety assessment: No

Section 16: OTHER INFORMATION

NFPA CODE	Health: 1	Fire: 1	Reactivity: 0
HMIS CODE	Health: 1	Fire: 1	Reactivity: 0

The information presented herein has been compiled from sources considered to be dependable and are accurate to the best of FUNCTIONAL PRODUCTS INC. knowledge at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. This safety data sheet contains information relating to safety only and does not replace any product information or product specification. Suggestions or applications are only opinions. Users are responsible for determining the suitability of this material for their own particular purpose. FUNCTIONAL PRODUCTS INC. makes no warranty whatsoever and expressly disclaims all liability for reliance thereon. Such data are offered solely for your consideration, investigation and verification.

Full text of phrases referred to in Section 3:

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H226 Flammable liquid and vapour.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

CCNL - Appendix 1

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This SDS cancels and replaces any preceding release.

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GefStoffVO	Ordinance on Hazardous Substances, Germany.
:	
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
LTE:	Long-term exposure.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STE:	Short-term exposure.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWATLV:	Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
WGK:	German Water Hazard Class.