

Safety Data Sheet

acc. to 29 CFR 1910.1200 App D

Date of compilation: 2024-03-26

SECTION 1: Identification

1.1 Product identifier

Product name/Code R5861
Product description Concentrated Floor Finish

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

Relevant identified uses

Floor finish

Uses advised against

All uses other than those indicated on the product label and technical data sheet.

1.3 Details of the supplier of the safety data sheet

Essential Polymers
28391 Essential Road
P.O. Box 12
Merton 53089 WI
United States

Telephone: 262-538-0091
Website: www.essentialpolymers.com

1.4 Emergency telephone number

Emergency information service 800-843-6174 (24 hours)

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Skin Sens. 1.
Repr. 1B.

2.2 Label elements

Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

- Signal word Danger

- Pictograms



- Hazard statements

May cause an allergic skin reaction.
May damage the unborn child. Suspected of damaging fertility.

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- Precautionary statements

Obtain special instructions before use.

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 exposed or concerned: Get medical advice/attention.

Specific treatment (see on this label).

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

Wash contaminated clothing before reuse.

Store locked up.

Dispose of contents/container to industrial combustion plant.

Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

2.3 Other hazards

of no significance

SECTION 3: Composition/information on ingredients

3.1 Substance / Mixture

Mixture

3.2 Mixtures

Description of the mixture

Name of substance	CAS No	Wt%	Classification acc. to GHS
2-(ethoxyethoxy) ethanol	111-90-0	5 – < 10	STOT SE 3 / H336 Flam. Liq. 4 / H227
Zinc(2+), tetraammine-, (T-4)-, carbonate (1:1)	38714-47-5	1 – < 5	Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 Skin Sens. 1 / H317
Dibutyl Phthalate	84-74-2	1 – < 5	Repr. 1B / H360Df
Diethylene Glycol Monomethyl ether	111-77-3	1 – < 5	Repr. 2 / H361fd STOT SE 3 / H336 Flam. Liq. 4 / H227
Tributoxyethyl Phosphate	78-51-3	1 – < 5	Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 STOT SE 3 / H335

Remarks

Any concentration shown as a range is to protect confidentiality or is due to batch variation. There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section. For full text of abbreviations: see SECTION 16.

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SECTION 4: First-aid measures

4.1 Description of first-aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

Following skin contact

Wash with plenty of soap and water.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray, BC-powder, Carbon dioxide (CO₂)

Unsuitable extinguishing media

Water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

Nitrogen oxides (NO_x), Carbon monoxide (CO), Carbon dioxide (CO₂)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Coordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

Special protective equipment for firefighters

Self-contained breathing apparatus (SCBA). Standard protective clothing for firefighters.

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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it in accordance with all local, state and federal regulations. If substance has entered a water course or sewer, inform the responsible authority.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains

Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Environmental Controls

Protect against external exposure, such as

frost

- Packaging compatibilities

Only packagings which are approved (e.g. acc. to the Dangerous Goods Regulations) may be used.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)											
Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m ³]	STEL [ppm]	STEL [mg/m ³]	Ceiling-C [ppm]	Ceiling-C [mg/m ³]	Notation	Source
US	dibutyl phthalate	84-74-2	PEL (CA)		5						Cal/ OSHA PEL
US	dibutyl phthalate	84-74-2	REL		5 (10 h)						NIOSH REL
US	dibutyl phthalate	84-74-2	TLV®		5						ACGIH® 2023
US	dibutyl phthalate	84-74-2	PEL		5						29 CFR 1910.1000

Notation

Ceiling-C
STEL

ceiling value is a limit value above which exposure should not occur
short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)

TWA

time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. 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.

- Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

In case of inadequate ventilation wear appropriate respiratory protection.

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	liquid
Color	Milky white
Odor	Bland

Other safety parameters

pH (value)	7.6 – 8.6
Melting point/freezing point	0 °C (32 °F)
Initial boiling point and boiling range	100 °C (212 °F)
Flash point	>93.33 °C (>200 °F) (c.c.)
Lower explosion limit (LEL)	not determined
Upper explosion limit (UEL)	not determined
Evaporation rate	not determined
Flammability (solid, gas)	not relevant, (fluid)
Vapor pressure	<4 kPa at 20 °C
Density	1.06 g/cm ³
Vapor density	<1 (Air=1)
Solubility(ies)	not determined
VOC	3.5%

Partition coefficient

- n-octanol/water (log KOW)	this information is not available
Auto-ignition temperature	not determined
Decomposition temperature	not determined
Viscosity	not determined

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SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

10.5 Incompatible materials

Oxidizers

10.6 Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Acute toxicity

Shall not be classified as acutely toxic.

Acute toxicity of components					
Name of substance	CAS No	Exposure route	Endpoint	Value	Species
2-(ethoxyethoxy) ethanol	111-90-0	oral	LD50	6,031 mg/kg	mouse
2-(ethoxyethoxy) ethanol	111-90-0	dermal	LD50	9,143 mg/kg	rabbit
Zinc(2+), tetraammine-, (T-4)-, carbonate (1:1)	38714-47-5	oral	LD50	>2,000 mg/kg	rat
Dibutyl Phthalate	84-74-2	oral	LD50	6,279 mg/kg	rat
Dibutyl Phthalate	84-74-2	inhalation: dust/mist	LC50	≥15.68 mg/l/4h	rat
Diethylene Glycol Monomethyl ether	111-77-3	oral	LD50	7,128 mg/kg	mouse
Diethylene Glycol Monomethyl ether	111-77-3	dermal	LD50	9,404 mg/kg	rabbit
Tributoxyethyl Phosphate	78-51-3	inhalation: dust/mist	LC50	>6.4 mg/l/4h	rat
Tributoxyethyl Phosphate	78-51-3	dermal	LD50	>5,000 mg/kg	rabbit

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Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

Respiratory or skin sensitization

May cause an allergic skin reaction.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

May damage the unborn child. Suspected of damaging fertility.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

Aquatic toxicity (acute) of components					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
2-(ethoxyethoxy) ethanol	111-90-0	LC50	6,010 mg/l	fish	96 h
2-(ethoxyethoxy) ethanol	111-90-0	ErC50	14,861 mg/l	algae	72 h
Dibutyl Phthalate	84-74-2	LC50	1.54 mg/l	fish	96 h
Dibutyl Phthalate	84-74-2	EC50	2.99 mg/l	aquatic invertebrates	48 h
Diethylene Glycol Mono-methyl ether	111-77-3	LC50	5,741 mg/l	fish	96 h
Diethylene Glycol Mono-methyl ether	111-77-3	EC50	1,192 mg/l	aquatic invertebrates	48 h
Tributoxyethyl Phosphate	78-51-3	LC50	24 mg/l	fish	96 h
Tributoxyethyl Phosphate	78-51-3	EC50	53 mg/l	aquatic invertebrates	48 h
Tributoxyethyl Phosphate	78-51-3	ErC50	61 mg/l	algae	72 h

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Aquatic toxicity (chronic) of components					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Dibutyl Phthalate	84-74-2	EC50	0.75 mg/l	algae	10 d
Diethylene Glycol Mono-methyl ether	111-77-3	EC50	>1,000 mg/l	microorganisms	30 min
Tributoxyethyl Phosphate	78-51-3	EC50	>1,000 mg/l	microorganisms	3 h

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB. Does not contain a PBT-/vPvB-substance at a concentration of $\geq 0.1\%$.

12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) in a concentration of $\geq 0.1\%$.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment.

Waste treatment of containers/packages

Only packagings which are approved (e.g. acc. to DOT) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

Dispose of contents/container in accordance with local/regional/national/international regulations. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Dispose of contents/container to an authorized waste treatment facility. Waste should not be disposed of by release to sewers. Avoid release to the environment. Empty container and inner liner may contain product residues. Ideally, waste should be prevented and what cannot be prevented should be re-used, recycled and recovered as much as feasible.

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SECTION 14: Transport information

Information for each of the UN Model Regulations

Transport of dangerous goods by road or rail (49 CFR US DOT) - Additional information

Particulars in the shipper's declaration	UN3082, Environmentally hazardous substance, liquid, n.o.s., (Dibutyl Phthalate), 9, III
Reportable quantity (RQ)	312.5 lbs (141.9 kg) The classification of the product is due solely to the presence of one or more US DOT-listed 'Hazardous substances' that are subject to reportable quantity requirements and only applies to shipments of packages greater than, or equal to, the product reportable quantity. Package sizes less than the product reportable quantity are not regulated as hazardous materials.
Danger label(s)	9



Environmental hazards	yes (hazardous to the aquatic environment)
ERG No	171

International Maritime Dangerous Goods Code (IMDG) - Additional information

Particulars in the shipper's declaration	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (4-(1,1,3,3-tetramethylbutyl) phenol, ethoxylated, Dibutyl Phthalate), 9, III
Marine pollutant	yes (hazardous to the aquatic environment)
Danger label(s)	9



Limited quantities (LQ)	5 L The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.
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International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Particulars in the shipper's declaration	UN3082, Environmentally hazardous substance, liquid, n.o.s., (4-(1,1,3,3-tetramethylbutyl) phenol, ethoxylated, Dibutyl Phthalate), 9, III
Environmental hazards	yes (hazardous to the aquatic environment)
Danger label(s)	9, fish and tree



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Limited quantities (LQ)

30 kg

This product when transported in single or combination packagings containing a net quantity per single or inner packaging of 5 l or less for liquids and an outer packaging of 30 kg or less, is not subject to any other provisions of transport regulation provided the packagings meet the general provisions

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

National regulations

Toxic Substance Control Act (TSCA)

all ingredients are listed (ACTIVE) or exempt from listing

DSL/NDSL (Canada)

all ingredients are listed on or exempt from the DSL

Superfund Amendment and Reauthorization Act (SARA TITLE III)

- Specific Toxic Chemical Listings (EPCRA Section 313)

Toxics Release Inventory: Specific Toxic Chemical Listings			
Name of substance	CAS No	Remarks	Effective date
Ethylene Glycol	107-21-1		1987-01-01
Zinc(2+), tetraammine-, (T-4)-, carbonate (1:1)			1987-01-01
Dibutyl Phthalate	84-74-2		1987-01-01

Clean Air Act

none of the ingredients are listed

California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1987

Proposition 65 List of chemicals			
Name acc. to inventory	CAS No	Remarks	Type of the toxicity
ethylene glycol (ethanediol)	107-21-1		developmental
di-n-butyl phthalate (DBP)	84-74-2		developmental, female, male

Industry or sector specific available guidance(s)

NPCA-HMIS® III

Hazardous Materials Identification System. American Coatings Association.

Category	Rating	Description
Chronic	*	chronic (long-term) health effects may result from repeated overexposure
Health	2	temporary or minor injury may occur
Flammability	1	material that must be preheated before ignition can occur

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Category	Rating	Description
Physical hazard	0	material that is normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosive
Personal protection	-	

NFPA® 704

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States).

Category	Degree of hazard	Description
Flammability	1	material that must be preheated before ignition can occur
Health	2	material that, under emergency conditions, can cause temporary incapacitation or residual injury
Instability	0	material that is normally stable, even under fire conditions
Special hazard		

SECTION 16: Other information, including date of preparation or last revision

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
29 CFR 1910.1000	29 CFR 1910.1000, Tables Z-1, Z-2, Z-3 - Occupational Safety and Health Standards: Toxic and Hazardous Substances (permissible exposure limits)
49 CFR US DOT	49 CFR U.S. Department of Transportation
ACGIH® 2023	From ACGIH®, 2023 TLVs® and BEIs® Book. Copyright 2023. Reprinted with permission. Information on the proper use of the TLVs® and BEIs®: http://www.acgih.org/tlv-bei-guidelines/policies-procedures-presentations/tlv-bei-position-statement
Cal/OSHA PEL	California Division of Occupational Safety and Health (Cal/OSHA): Permissible Exposure Limits (PELs)
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
DGR	Dangerous Goods Regulations (see IATA/DGR)
DOT	Department of Transportation (USA)
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
ED	Endocrine disruptor
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
ERG No	Emergency Response Guidebook - Number
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
Flam. Liq.	Flammable liquid

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Abbr.	Descriptions of used abbreviations
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval
NIOSH REL	National Institute for Occupational Safety and Health (NIOSH): Recommended Exposure Limits (RELs)
NPCA-HMIS® III	National Paint and Coatings Association: Hazardous Materials Identification System - HMIS® III, Third Edition
OSHA	Occupational Safety and Health Administration (United States)
PBT	Persistent, Bioaccumulative and Toxic
PEL	Permissible exposure limit
ppm	Parts per million
Repr.	Reproductive toxicity
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
Skin Sens.	Skin sensitization
STEL	Short-term exposure limit
STOT SE	Specific target organ toxicity - single exposure
TLV®	Threshold Limit Values
TWA	Time-weighted average
VOC	Volatile Organic Compounds
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200.

Transport of dangerous goods by road or rail (49 CFR US DOT). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties: The classification is based on the tested mixture and/or formulator knowledge.
Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

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List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H227	Combustible liquid.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H360Df	May damage the unborn child. Suspected of damaging fertility.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.

Disclaimer

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.