

acc. to 29 CFR 1910.1200 App D

## **STP Engine Flush**

Version number: 3.2 Revision: 2023-09-11 Replaces version of: 2022-07-19 (2)

#### **SECTION 1: Identification**

#### 1.1 Product identifier

Trade name STP Engine Flush

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

Relevant identified uses General use

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

Energizer Manufacturing, Inc. 25225 Detroit Rd. Westlake OH 44145 United States

Telephone: 800-383-7323; 314-985-2000 (USA / CANADA)

e-mail: Autocare.regulatory@energizer.com

Website: http://data.energizer.com

#### 1.4 Emergency telephone number

**Emergency information service** 

FOR EMERGENCY in USA & Canada CALL +1 800 255-3924 / For International CALL +1 813 248 0585 This number is only available during the following office hours: Mon-Fri 09:00 AM - 05:00 PM

#### **SECTION 2: Hazard(s) identification**

#### 2.1 Classification of the substance or mixture

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

Section	Hazard class	Category	Hazard class and category	Hazard state- ment
A.1I	acute toxicity (inhal.)	4	Acute Tox. 4	H332
A.2	skin corrosion/irritation	2	Skin Irrit. 2	H315
A.3	serious eye damage/eye irritation	2	Eye Irrit. 2	H319
A.4R	respiratory sensitization	1	Resp. Sens. 1	H334
A.4S	skin sensitization	1	Skin Sens. 1	H317
B.6	flammable liquid	4	Flam. Liq. 4	H227

For full text of abbreviations: see SECTION 16.

The most important adverse physicochemical, human health and environmental effects

The product is combustible and can be ignited by potential ignition sources.

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#### 2.2 Label elements

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

- Signal word danger

- Pictograms

GHS07, GHS08



#### - Hazard statements

H227 Combustible liquid. H315 Causes skin irritation.

H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

#### - Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P261 Avoid breathing mist/vapors.

P271 Use only outdoors or in a well-ventilated area.

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

P280 Wear protective gloves/eye protection/face protection.
P285 In case of inadequate ventilation wear respiratory protection.

P302+P352 If on skin: Wash with plenty of water.

P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and

easy to do. Continue rinsing.

P312 Call a poison center/doctor if you feel unwell.

P321 Specific treatment (see on this label).

P342+P311 If experiencing respiratory symptoms: Call a poison center/doctor.

P362 Take off contaminated clothing and wash before reuse.

P363 Wash contaminated clothing before reuse.

P370+P378 In case of fire: Use sand, carbon dioxide or powder extinguisher to extinguish.

P403+P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents/container in accordance with local/regional/national/international regula-

tions.

#### - Hazardous ingredients for labelling

ethylenediamine, Hydrotreated Heavy Alkanes

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#### 2.3 Other hazards

Hazards not otherwise classified

May be harmful if swallowed (GHS category 5: acutely toxic - oral). May be harmful in contact with skin (GHS category 5: acutely toxic - dermal).

Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance in a concentration of  $\geq 0.1\%$ .

Endocrine disrupting properties

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

## **SECTION 3: Composition/information on ingredients**

#### 3.1 Substances

Not relevant (mixture)

#### 3.2 Mixtures

Description of the mixture

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
Hydrotreated Heavy Al- kanes	CAS No trade secret	50 - < 75	Acute Tox. 4 / H332	<u>(1)</u>
Zinc dialkyl dithiophos- phate	CAS No 68649-42-3	5 – < 10	Skin Irrit. 2 / H315 Eye Irrit. 2 / H319	<u>(!</u> )
2-butoxyethanol	CAS No 111-76-2	5 – < 10	Acute Tox. 4 / H302 Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 Flam. Liq. 4 / H227	<u>(!</u> >
ethylenediamine	CAS No trade secret	1-<5	Acute Tox. 4 / H302 Acute Tox. 3 / H311 Acute Tox. 4 / H332 Skin Corr. 1B / H314 Eye Dam. 1 / H318 Resp. Sens. 1B / H334 Skin Sens. 1B / H317 Flam. Liq. 3 / H226	

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. In case of respiratory tract irritation, consult a physician. 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

In case of insufficient ventilation and/or in use, may form flammable/explosive vapor-air mixture. Solvent vapors are heavier than air and may spread along floors. Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures.

#### Hazardous combustion products

Nitrogen oxides (NOx), 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.

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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.

#### 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. Avoidance of ignition sources. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge. Use only in well-ventilated areas. Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools.

- Specific notes/details

Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures. Vapors are heavier than air, spread along floors and form explosive mixtures with air. Vapors may form explosive mixtures with air.

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## 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.

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

Managing of associated risks

- Explosive atmospheres

Keep container tightly closed and in a well-ventilated place. Use local and general ventilation. Keep cool. Protect from sunlight.

- Flammability hazards

Keep away from sources of ignition - No smoking. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Protect from sunlight.

- Ventilation requirements

Keep any substance that emits harmful vapors or gases in a place that allows these to be permanently extracted. Use local and general ventilation. Ground/bond container and receiving equipment.

#### 7.3 Specific end use(s)

See section 16 for a general overview.

#### **SECTION 8: Exposure controls/personal protection**

#### 8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)

Coun try	Name of agent	CAS No	Iden- tifier	TWA [ppm]	TWA [mg/ m³]	STEL [ppm]	STEL [mg/ m³]	Ceil- ing-C [ppm]	Ceil- ing-C [mg/ m³]	Nota tion	Sourc e
US	ethylenediamine	107-15-3	REL	10 (10 h)	25 (10 h)						NIOSH REL
US	ethylenediamine	107-15-3	PEL	10	25						29 CFR 1910.1 000
US	ethylenediamine	107-15-3	TLV®	10						Н	AC- GIH® 2023
US	ethylenediamine (1,2-diaminoeth- ane)	107-15-3	PEL (CA)	10	25						Cal/ OSHA PEL
US	2-butoxyethanol	111-76-2	REL	5 (10 h)	24 (10 h)						NIOSH REL

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#### Occupational exposure limit values (Workplace Exposure Limits)

Coun try	Name of agent	CAS No	Iden- tifier	TWA [ppm]	TWA [mg/ m³]	STEL [ppm]	STEL [mg/ m³]	Ceil- ing-C [ppm]	Ceil- ing-C [mg/ m³]	Nota tion	Sourc e
US	2-butoxyethanol	111-76-2	TLV®	20							AC- GIH® 2023
US	2-butoxyethanol	111-76-2	PEL	50	240						29 CFR 1910.1 000
US	2-butoxyethanol (EGBE) (glycol monobutyl ether)	111-76-2	PEL (CA)	20	97						Cal/ OSHA PEL

Notation

ceiling value is a limit value above which exposure should not occur absorbed through the skin  $\,$ Ceiling-C

STEL 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

#### Biological limit values

Country	Name of agent	Parameter	Nota- tion	Identifier	Value	Source
US	2-butoxyethanol	Butoxyacetic acid (BAA)	hydr, crea	BEI®	200 mg/g	ACGIH® 2023

Notation

creatinine crea hydr hydrolysis

#### Relevant DNELs of components of the mixture

Name of sub- stance	CAS No	End- point	Threshold level	Protection goal, route of expos- ure	Used in	Exposure time
2-butoxyethanol	111-76-2	DNEL	125 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
2-butoxyethanol	111-76-2	DNEL	89 mg/kg bw/day	human, dermal	worker (industry)	acute - systemic ef- fects
2-butoxyethanol	111-76-2	DNEL	98 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects

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Relevant DNELs of components of the mixture

Name of sub- stance	CAS No	End- point	Threshold level	Protection goal, route of expos- ure	Used in	Exposure time			
2-butoxyethanol	111-76-2	DNEL	1,091 mg/ m³	human, inhalatory	worker (industry)	acute - systemic ef- fects			
2-butoxyethanol	111-76-2	DNEL	246 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	acute - local effects			
ethylenediamine	trade secret	DNEL	3.6 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects			
ethylenediamine	trade secret	DNEL	25 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects			

#### Relevant PNECs of components of the mixture

Name of sub- stance	CAS No	End- point	Threshold level	Organism	Environmental compartment	Exposure time
2-butoxyethanol	111-76-2	PNEC	9.1 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	water	intermittent re- lease
2-butoxyethanol	111-76-2	PNEC	8.8 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	freshwater	short-term (single instance)
2-butoxyethanol	111-76-2	PNEC	0.88 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	marine water	short-term (single instance)
2-butoxyethanol	111-76-2	PNEC	463 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	sewage treatment plant (STP)	short-term (single instance)
2-butoxyethanol	111-76-2	PNEC	34.6 <sup>mg</sup> / <sub>kg</sub>	aquatic organ- isms	freshwater sedi- ment	short-term (single instance)
2-butoxyethanol	111-76-2	PNEC	3.46 <sup>mg</sup> / <sub>kg</sub>	aquatic organ- isms	marine sediment	short-term (single instance)
2-butoxyethanol	111-76-2	PNEC	2.33 <sup>mg</sup> / <sub>kg</sub>	terrestrial organ- isms	soil	short-term (single instance)
ethylenediamine	trade secret	PNEC	0.016 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	freshwater	short-term (single instance)
ethylenediamine	trade secret	PNEC	0.002 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	marine water	short-term (single instance)
ethylenediamine	trade secret	PNEC	0.32 <sup>mg</sup> / <sub>l</sub>	aquatic organ- isms	sewage treatment plant (STP)	short-term (single instance)
ethylenediamine	trade secret	PNEC	7.68 <sup>mg</sup> / <sub>kg</sub>	aquatic organ- isms	freshwater sedi- ment	short-term (single instance)
ethylenediamine	trade secret	PNEC	0.768 <sup>mg</sup> / <sub>kg</sub>	aquatic organ- isms	marine sediment	short-term (single instance)

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#### Relevant PNECs of components of the mixture

Name of sub- stance	CAS No	End- point	Threshold level	Organism	Environmental compartment	Exposure time
ethylenediamine	trade secret	PNEC	4.36 <sup>mg</sup> / <sub>kg</sub>	terrestrial organ- isms	soil	short-term (single instance)

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#### 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, which are tested according to EN 374. 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 respiratory protection.

Environmental exposure controls

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

#### **SECTION 9: Physical and chemical properties**

## 9.1 Information on basic physical and chemical properties

#### **Appearance**

Physical state	liquid
Color	light brown
Particle	not relevant (liquid)
Odor	mild hydrocarbon

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#### Other safety parameters

pH (value)	not determined
Melting point/freezing point	-74.8 °C at 1 atm
Initial boiling point and boiling range	110 – 150 °C at 1,013 hPa
Flash point	70 °C at 1 atm
Evaporation rate	Not determined
Flammability (solid, gas)	not relevant, (fluid)
Vapor pressure	0.8 hPa at 20 °C
Density	0.81 <sup>g</sup> / <sub>cm³</sub> at 20 °C
Vapor density	this information is not available
Solubility(ies)	not determined

#### Partition coefficient

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

Viscosity	not determined
Explosive properties	none
Oxidizing properties	none

# 9.2 Other information there is no additional information

#### **SECTION 10: Stability and reactivity**

#### 10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials". The mixture contains reactive substance(s). Risk of ignition.

#### If heated:

Risk of ignition

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#### 10.2 Chemical stability

See below "Conditions to avoid".

#### 10.3 Possibility of hazardous reactions

No known hazardous reactions.

#### 10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

#### Hints to prevent fire or explosion

Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

#### 10.5 Incompatible materials

Oxidizers

#### 10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. 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

Harmful if inhaled.

GHS of the United Nations, annex 4: May be harmful if swallowed or in contact with skin.

#### Acute toxicity estimate (ATE)

Inhalation: gas >5,000 ppmV/<sub>4h</sub> Inhalation: vapor 15.39 mg/<sub>1</sub>/<sub>4</sub>h

#### Acute toxicity estimate (ATE) of components of the mixture

Name of substance	CAS No	Exposure route	ATE
Hydrotreated Heavy Alkanes	trade secret	inhalation: vapor	11 <sup>mg</sup> / <sub>l</sub> /4h
Hydrotreated Heavy Alkanes	trade secret	inhalation: dust/mist	2.18 <sup>mg</sup> / <sub>l</sub> /4h
2-butoxyethanol	111-76-2	oral	1,414 <sup>mg</sup> / <sub>kg</sub>
ethylenediamine	trade secret	oral	866 <sup>mg</sup> / <sub>kg</sub>

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#### Acute toxicity estimate (ATE) of components of the mixture

Name of substance	CAS No	Exposure route	ATE
ethylenediamine	trade secret	dermal	560 <sup>mg</sup> / <sub>kg</sub>
ethylenediamine	trade secret	inhalation: vapor	14.7 <sup>mg</sup> / <sub>l</sub> /4h

#### Skin corrosion/irritation

Causes skin irritation.

#### Serious eye damage/eye irritation

Causes serious eye irritation.

#### Respiratory or skin sensitization

May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

#### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

#### Carcinogenicity

Shall not be classified as carcinogenic.

#### IARC Monographs on the Evaluation of Carcinogenic Risks to Humans

Name of substance	CAS No	Classification	Number
2-butoxyethanol	111-76-2	3	

#### Legend

Not classifiable as to carcinogenicity in humans

#### Reproductive toxicity

Shall not be classified as a reproductive toxicant.

#### 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.

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#### **SECTION 12: Ecological information**

#### 12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

#### 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 in a concentration of  $\geq 0.1\%$ .

#### 12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) 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

Waste treatment-relevant information

Solvent reclamation/regeneration.

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packages

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

#### Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

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#### **SECTION 14: Transport information**

**14.1 UN number** not subject to transport regulations

**14.2 UN proper shipping name** not relevant

**14.3 Transport hazard class(es)** none

**14.4 Packing group** not assigned

**14.5** Environmental hazards non-environmentally hazardous acc. to the danger-

ous goods regulations

14.6 Special precautions for user

There is no additional information.

14.7 Transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

#### Information for each of the UN Model Regulations

DOT

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

Not subject to transport regulations.

International Maritime Dangerous Goods Code (IMDG) - Additional information

Not subject to IMDG.

International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Not subject to ICAO-IATA.

#### **SECTION 15: Regulatory information**

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

**National regulations (United States)** 

**Toxic Substance Control Act (TSCA)** all ingredients are listed (ACTIVE) or exempt from

isting

#### Superfund Amendment and Reauthorization Act (SARA TITLE III )

- The List of Extremely Hazardous Substances and Their Threshold Planning Quantities (EPCRA Section 302, 304)

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The List of Extremely Hazardous Substances and Their Threshold Planning Quantities

Name of substance	CAS No	Notes	Reportable quantity (pounds)	Threshold plan- ning quantity (pounds)
ethylenediamine	107-15-3		5,000	10000

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- Specific Toxic Chemical Listings (EPCRA Section 313)

Toxics Release Inventory: Specific Toxic Chemical Listings

Name of substance	CAS No	Remarks	Effective date
Zinc dialkyl dithiophosphate			1987-01-01

#### Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

- List of Hazardous Substances and Reportable Quantities (CERCLA section 102a) (40 CFR 302.4)

Name of substance	CAS No	Remarks	Statutory code	Final RQ pounds (Kg)
ethylenediamine	107-15-3		1	5000 (2270)

#### Legend

#### **Clean Air Act**

Name of substance	CAS No	Type of registra- tion	Basis for listing	Threshold quantity (lbs)
ethylenediamine	107-15-3	Toxic substance	b	20000

Legend

#### **Right to Know Hazardous Substance List**

- Cleaning Product Right to Know Act Substance List (CA-RTK)

Name of substance	CAS No	Functionality	Authoritative Lists
Hydrotreated Heavy Alkanes	64742-52-5	solvents	EC Annex VI CMRs - Cat. 1B
2-butoxyethanol	111-76-2	solvents	OEHHA RELS
ethylenediamine	107-15-3	solvents	EC Annex VI Resp. Sens Cat. 1

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<sup>&</sup>quot;1" indicates that the statutory source is section 311(b)(2) of the Clean Water Act

b On EHS list, vapor pressure 10 mmHg or greater.





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#### - Toxic or Hazardous Substance List (MA-TURA)

Name of substance	CAS No	DEP CODE	PBT / HHS / LHS	PBT / HHS Threshol d	De Minimis Con- centration Threshold
ethylenediamine	107-15-3				1.0 %
Zinc dialkyl dithiophosphate		1039			1.0 %
2-butoxyethanol		1022			1.0 %

#### - Hazardous Substances List (MN-ERTK)

Name of substance	CAS No	References	Remarks
ethylenediamine	107-15-3	A, O	
2-butoxyethanol	111-76-2	A, O	skin

#### Legend

American Conference of Governmental Industrial Hygienists (ACGIH), "Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices for 1992-93", available from ACGIH
Occupational Safety and Health Administration (OSHA), Safety and Health Standards, Code of Federal Regulations, title 29, part

0 1910, subpart Z, "Toxic and Hazardous Substances, 1990." General information: Minnesota Department of Labor and Industry, Occupational Safety and Health Division

If a potential for absorption from skin contact merits special consideration, the word "skin" follows the substance name.

skin

#### - Hazardous Substance List (NJ-RTK)

Name of substance	CAS No	Remarks	Classifications
ethylenediamine	107-15-3		CO F2
Zinc dialkyl dithiophosphate			
2-butoxyethanol	111-76-2		CA F2

#### Legend

Carcinogenic CO Corrosive

Flammable - Second Degree

#### - Hazardous Substance List (Chapter 323) (PA-RTK)

Name acc. to inventory	CAS No	Classification
1,2-ETHANEDIAMINE	107-15-3	E
ZINC	7440-66-6	*, E
ETHANOL, 2-BUTOXY-	111-76-2	

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Legend

\* Any compound of this substance is also an environmental hazard

E Environmental hazard

#### - Hazardous Substance List (RI-RTK)

Name of substance	CAS No	References
ethylenediamine	107-15-3	T, F
ethylenediamine	107-15-3	T, F
2-butoxyethanol	111-76-2	Т
2-butoxyethanol	111-76-2	Т

Legend

F Flammability (NFPA®)
T Toxicity (ACGIH®)

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

none of the ingredients are listed

# Drug precursors, Chemicals designated within the Controlled Substances Act, 21 U.S.C. § 802, paragraphs 34 (list I) and 35 (list II)

none of the ingredients are listed

### Industry or sector specific available guidance(s)

#### **NPCA-HMIS® III**

 $\label{thm:matter} \textit{Hazardous Materials Identification System. American Coatings Association.}$ 

Category	Rating	Description
Chronic	*	chronic (long-term) health effects may result from repeated overexposure
Health	2	temporary or minor injury may occur
Flammability	2	material that must be moderately heated or exposed to relatively high ambient tem- peratures before ignition can occur
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).

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acc. to 29 CFR 1910.1200 App D

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> Description Category Degree of hazard 2 Flammability material that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur 2 Health 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

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#### **National inventories**

Country	Inventory	Status
AU	AIIC	all ingredients are listed
CA	DSL	all ingredients are listed
CN	IECSC	all ingredients are listed
EU	ECSI	all ingredients are listed
EU	REACH Reg.	all ingredients are listed
JP	CSCL-ENCS	not all ingredients are listed
JP	ISHA-ENCS	not all ingredients are listed
KR	KECI	all ingredients are listed
MX	INSQ	all ingredients are listed
NZ	NZIoC	all ingredients are listed
PH	PICCS	all ingredients are listed
TR	CICR	all ingredients are listed
TW	TCSI	all ingredients are listed
US	TSCA	all ingredients are listed (ACTIVE)
VN	NCI	all ingredients are listed

Legend

AIIC Australian Inventory of Industrial Chemicals CICR Chemical Inventory and Control Regulation

**CSCL-ENCS** List of Existing and New Chemical Substances (CSCL-ENCS)

DSL

Domestic Substances List (DSL) EC Substance Inventory (EINECS, ELINCS, NLP) **ECSI** 

**IECSC** Inventory of Existing Chemical Substances Produced or Imported in China National Inventory of Chemical Substances

**INSQ** 

ISHA-ENCS Inventory of Existing and New Chemical Substances (ISHA-ENCS)

KECI Korea Existing Chemicals Inventory National Chemical Inventory NCI New Zealand Inventory of Chemicals NZIoC

**PICCS** Philippine Inventory of Chemicals and Chemical Substances (PICCS)

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Legend

REACH Reg. REACH registered substances
TCSI Taiwan Chemical Substance Inventory

TSCA Toxic Substance Control Act

#### 15.2 Chemical Safety Assessment

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

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

#### Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)	Safety- relev- ant
2.2		- Precautionary statements: change in the listing (table)	yes
2.3	Other hazards: This material is combustible, but will not ignite readily.	Other hazards	yes
2.3		Results of PBT and vPvB assessment: Does not contain a PBT-/vPvB-substance in a concentration of ≥ 0.1%.	yes
2.3		Endocrine disrupting properties:  Does not contain an endocrine disruptor (EDC) in a concentration of ≥ 0.1%.	yes
3.2		Description of the mixture: change in the listing (table)	yes
8.1		Occupational exposure limit values (Workplace Exposure Limits): change in the listing (table)	yes
8.1		Biological limit values: change in the listing (table)	yes
8.1		Relevant DNELs of components of the mixture: change in the listing (table)	yes
8.1		Relevant PNECs of components of the mixture: change in the listing (table)	yes
12.5	Results of PBT and vPvB assessment: Data are not available.	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 in a concentration of ≥ 0.1%.	yes
12.6	Endocrine disrupting properties: None of the ingredients are listed.	Endocrine disrupting properties: Does not contain an endocrine disruptor (EDC) in a concentration of ≥ 0.1%.	yes

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> Section Former entry (text/value) Actual entry (text/value) Safetyrelevant 14.3 Transport hazard class(es): Transport hazard class(es): yes not assigned none 15.1 Toxic Substance Control Act (TSCA): Toxic Substance Control Act (TSCA): yes all ingredients are listed all ingredients are listed (ACTIVE) or exempt from Specific Toxic Chemical Listings (EPCRA Section Specific Toxic Chemical Listings (EPCRA Section 15.1 yes 313): none of the ingredients are listed 15.1 Toxics Release Inventory: Specific Toxic Chemical yes Listings: change in the listing (table) 15.1 Toxic or Hazardous Substance List (MA-TURA): yes change in the listing (table) 15.1 Hazardous Substance List (NJ-RTK): yes change in the listing (table) 15.1 Hazardous Substance List (Chapter 323) (PA-RTK): yes change in the listing (table) 15.1 Hazardous Substance List (RI-RTK): yes change in the listing (table) 15.1 National inventories: yes change in the listing (table)

#### **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®	American Conference of Governmental Industrial Hygienists
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
Acute Tox.	Acute toxicity
ATE	Acute Toxicity Estimate
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

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Abbr.	Descriptions of used abbreviations
DEP CODE	Department of Environmental Protection Code
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
DOT	Department of Transportation (USA)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
Flam. Liq.	Flammable liquid
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
HHS	Higher hazard substance
IARC	International Agency for Research on Cancer
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
LHS	Lower hazard substance
NFPA®	National Fire Protection Association (United States)
NIOSH REL	National Institute for Occupational Safety and Health (NIOSH): Recommended Exposure Limits (RELs)
NLP	No-Longer Polymer
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
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
Resp. Sens.	Respiratory sensitization
RTECS	Registry of Toxic Effects of Chemical Substances (database of NIOSH with toxicological information)
Skin Corr.	Corrosive to skin

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Abbr.	Descriptions of used abbreviations
Skin Irrit.	Irritant to skin
Skin Sens.	Skin sensitization
STEL	Short-term exposure limit
TLV®	Threshold Limit Values
TWA	Time-weighted average
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 tested mixture.

Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

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

Code	Text
H226	Flammable liquid and vapor.
H227	Combustible liquid.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.

#### Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

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