SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 19-Oct-2026 **Revision Number** 1.01

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

1.1. Product identifier

Safety data sheet number FG-45A

Product Name Part A:
Free Form Air
Free Form Air Fast

Other means of identification

Unique Formula Identifier (UFI) E090-G056-200F-HUU5

Pure substance/mixture Mixture

Contains Oxirane, 2,2-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-, homopolymer

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

Recommended use Formulated Epoxy Resin

Uses advised against

1.3. Details of the supplier of the safety data sheet

Supplier
Smooth-On Inc, 5600 Lower Macungie Rd, Macungie, PA 18062, USA, Phone: +01.610.252.5800, www.smooth-on.com, sds@smooth-on.com
For further information, please contact

E-mail address sds@smooth-on.com

1.4. Emergency telephone number

Emergency Telephone CHEMTEL +01-813-248-0585

Emergency Telephone - §45 - (EC)1272/2008	
Europe	**112**
Austria	01 406 43 43
Belgium	070 245 245
Bulgaria	+359 9154 233
Croatia	+385 1 2348 342
Cyprus	1401
Czech Republic	224 91 92 93 22191 54 02
Denmark	+45 8212 1212
Estonia	16662
Finland	Maksuton Puhelu: 0800 147 111 Normihinta: +358 9 471 977

France	+33 01 45 42 59 59
Germany	112
Greece	(0030) 2107793777
Hungary	+36 80 201 199
Iceland	+354 543 2222
Ireland	01 837 9964 01 809 2566
Italy	06 3054 343 10 Italian Poison Centres: Rome +39 06-68593726 / +30 06-49978000 / +39 06-3054343, Foggia +39 800183459, Naples +39 081-5453333, Florenze +39 055-7947819, Pavia +39 0382-24444, Milan +39 02-66101029, Bergamo +39 80088300, Verona +39 800011858
Latvia	+370 (5) 2362052
Liechtenstein	01 406 43 43
Lithuania	+370 5 236 20 52 +370 687 533 78
Luxembourg	(+352) 8002 5500
Netherlands	+31 (0) 88 755 8000
Norway	22 59 13 00
Poland	+48 22 619 66 54
Portugal	+351 800 250 250
Romania	+40 21 599 2300
Slovakia	+421 2 5477 4166
Spain	+34 91 562 04 20
Sweden	112
Switzerland	145
United Kingdom	0344 892 0111

SECTION 2: Hazards identification

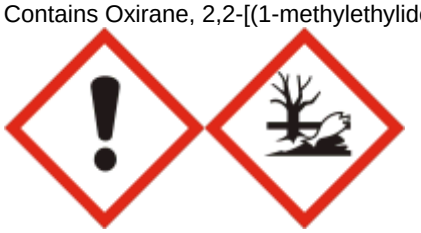
2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2 - (H319)
Skin sensitization	Category 1 - (H317)
Hazardous to the aquatic environment - chronic	Category 2 - (H411)

2.2. Label elements

Contains Oxirane, 2,2-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-, homopolymer



Signal word
Warning

Hazard statements
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary Statements - EU (§28, 1272/2008)
P264 - Wash face, hands and any exposed skin thoroughly after handling.
P273 - Avoid release to the environment.
P280 - Wear protective gloves, eye protection and face protection.
P321 - Specific treatment (see supplemental first aid instructions on this label).
P362 + P364 - Take off contaminated clothing and wash it before reuse.
P391 - Collect spillage.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 - If eye irritation persists: Get medical advice/attention.

Additional information
This product requires tactile warnings if supplied to the general public.

2.3. Other hazards

No information available.

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Hazardous

Chemical name	Weight-%	REACH registration number	EC No. (Index No.)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)	Notes
Oxirane, 2,2-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-, homopolymer 25085-99-8	65-85	01-2119456619-26-0104	-	No data available	-	-	-	-

Full text of H- and EUH-phrases: see section 16

Acute Toxicity Estimate
No information available

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59).

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice Show this safety data sheet to the doctor in attendance.

Inhalation	Remove to fresh air. Get medical attention immediately if symptoms occur.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.
Skin contact	May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician. Wash off immediately with soap and plenty of water for at least 15 minutes.
Ingestion	Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.
Self-protection of the first aider	Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

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

Symptoms	Itching. Rashes. Hives. May cause redness and tearing of the eyes. Burning sensation.
Effects of Exposure	No information available.

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

Note to physicians	May cause sensitization in susceptible persons. Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	Product is or contains a sensitizer. May cause sensitization by skin contact.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1- Recommendations for those who intervene directly
No information available.

6.1.2.- Recommendations for those who do not intervene directly
No information available.

Personal precautions	Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away

from and upwind of spill/leak.

Other information Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

General hygiene considerations Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes or clothing.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Storage class (TRGS 510) Storage class 10.

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Biological occupational exposure limits This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) - Workers No information available

Derived No Effect Level (DNEL) - General Public No information available.

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering controls No information available.

Personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Hand protection Wear suitable gloves.

Skin and body protection Wear suitable protective clothing. Long sleeved clothing.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. Use appropriate respiratory protection.

General hygiene considerations Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes or clothing.

Environmental exposure controls No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Viscous Liquid
Color	No information available
Odor	Mild.
Odor threshold	No information available

Property	**Values**	**Remarks • Method**
Melting point / freezing point	No data available	None known
Initial boiling point and boiling range	No data available	None known
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Flash point	> 149 °C	None known
Autoignition temperature	No data available	None known
Decomposition temperature		None known
pH	No data available	None known
pH (as aqueous solution)	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	10000 - 20000 Centipoise	None known
Water solubility	No data available	None known
Solubility(ies)	No data available	None known

Partition coefficient	No data available	None known
Vapor pressure	No data available	None known
Relative density	1.07	None known
Bulk density	No data available	
Liquid Density	No data available	
Relative vapor density	No data available	None known
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

9.2. Other information

9.2.1. Information with regard to physical hazard classes
Not applicable

9.2.2. Other safety characteristics
No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No information available.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data
Sensitivity to mechanical impact None.
Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid None known based on information supplied.

10.5. Incompatible materials

Incompatible materials Strong acids. Strong bases. Strong oxidizing agents.

10.6. Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

SECTION 11: Toxicological information

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

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.

Eye contact	Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.
Skin contact	May cause sensitization by skin contact. Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components). Causes skin irritation.
Ingestion	Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Itching. Rashes. Hives. Redness. May cause redness and tearing of the eyes.

Acute toxicity

Numerical measures of toxicity

The following ATE values have been calculated for the mixture

ATEmix (oral)	6,014.10 mg/kg
ATEmix (dermal)	6,737.60 mg/kg
ATEmix (inhalation-dust/mist)	5.01 mg/l

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Classification based on data available for ingredients. Causes skin irritation.

Serious eye damage/eye irritation Classification based on data available for ingredients. Causes serious eye irritation.

Respiratory or skin sensitization May cause an allergic skin reaction.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties No information available.

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity Toxic to aquatic life with long lasting effects.

Unknown aquatic toxicity Contains 23 % of components with unknown hazards to the aquatic environment.

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation There is no data for this product.

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment The product does not contain any substance(s) classified as PBT or vPvB above the threshold of declaration.

12.6. Endocrine disrupting properties

Endocrine disrupting properties No information available.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

SECTION 14: Transport information

IATA

14.1 UN number or ID number UN3082
14.2 UN proper shipping name Environmentally hazardous substance, liquid, n.o.s. (Epoxy Resin)
14.3 Transport hazard class(es) 9

14.4 Packing group	III
14.5 Environmental hazards	Marine Pollutant
14.6 Special precautions for user	
Special Provisions	None
Note:	This product is not regulated for single or combination packaging having a net quantity of 5L or less.

IMDG

14.1 UN number or ID number	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy Resin) This product is not regulated for single or combination packaging having a net quantity of 5L or less.
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environmental hazards	Marine Pollutant
14.6 Special precautions for user	
Special Provisions	None
14.7 Maritime transport in bulk according to IMO instruments	No information available

RID

14.1 UN number or ID number	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy Resin)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environmental hazards	Marine Pollutant
14.6 Special precautions for user	
Special Provisions	None
Note:	This product is not regulated for single or combination packaging having a net quantity of 5L or less.

ADR

14.1 UN number or ID number	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy Resin)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environmental hazards	Marine Pollutant
14.6 Special precautions for user	
Special Provisions	None
Note:	This product is not regulated for single or combination packaging having a net quantity of 5L or less.

SECTION 15: Regulatory information

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

National regulations

Germany

Water hazard class (WGK)	non-hazardous to water (nwg)

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorizations and/or restrictions on use:
This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants
Not applicable

Dangerous substance category per Seveso Directive (2012/18/EU)
E2 - Hazardous to the Aquatic Environment in Category Chronic 2

Ozone-depleting substances (ODS) Regulation (EU) 2024/590
Not applicable

International Inventories

TSCA	Contact supplier for inventory compliance status
DSL/NDSL	Contact supplier for inventory compliance status
EINECS/ELINCS	Contact supplier for inventory compliance status
ENCS	Contact supplier for inventory compliance status
IECSC	Contact supplier for inventory compliance status
KECL	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
AIIC	Contact supplier for inventory compliance status
NZIoC	Contact supplier for inventory compliance status

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing Chemicals Inventory
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AIIC - Australian Inventory of Industrial Chemicals
NZIoC - New Zealand Inventory of Chemicals

15.2. Chemical safety assessment

Chemical Safety Report No information available

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend
SVHC: Substances of Very High Concern for Authorization:
PBT: Persistent, Bioaccumulative, and Toxic (PBT) Substances
vPvB: Very Persistent and very Bioaccumulative (vPvB) Substances
STOT: Specific Target Organ Toxicity
ATE: Acute Toxicity Estimate
LC50: 50% Lethal Concentration

LD50: 50% Lethal Dose

Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	Sk*	Skin designation
+	Sensitizers		

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapor	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitization	Calculation method
Skin sensitization	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Chronic aquatic toxicity	Calculation method
Acute aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS

U.S. Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
European Chemicals Agency (ECHA) (ECHA_API)
U.S. Environmental Protection Agency
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan National Institute of Technology and Evaluation (NITE)
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine’s PubMed database (NLM PUBMED)
U.S. National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
International Organization for Economic Co-operation and Development (OECD) Environment, Health, and Safety Publications
International Organization for Economic Co-operation and Development (OECD) High Production Volume Chemicals Program
International Organization for Economic Co-operation and Development (OECD) Screening Information Data Set
United Nations World Health Organization (WHO)

Revision date 19-Oct-2026

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)
Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a 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.

End of Safety Data Sheet

SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 20-Oct-2026 **Revision Number** 1.01

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

1.1. Product identifier

Safety data sheet number FG-2053B

Product Name Part B: Free Form Air Fast

Other means of identification

Unique Formula Identifier (UFI) 6390-Y0UK-C00Y-59YT

Pure substance/mixture Mixture

Contains Phenol, 4-nonyl-, branched; 1-Piperazineethanamine; Bisphenol A; 4-tert-Butylphenol; Benzenemethanamine, N,N,-dimethyl-; Phenylalkyl alcohol; Alkyl-Carbomonocyclic-diamine

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

Recommended use Epoxy Curative

Uses advised against

1.3. Details of the supplier of the safety data sheet

Supplier
Smooth-On Inc, 5600 Lower Macungie Rd, Macungie, PA 18062, USA, Phone: +01.610.252.5800, www.smooth-on.com, sds@smooth-on.com
For further information, please contact

E-mail address sds@smooth-on.com

1.4. Emergency telephone number

Emergency Telephone CHEMTEL +01-813-248-0585

Emergency Telephone - §45 - (EC)1272/2008	
Europe	**112**
Austria	01 406 43 43
Belgium	070 245 245
Bulgaria	+359 9154 233
Croatia	+385 1 2348 342
Cyprus	1401
Czech Republic	224 91 92 93 22191 54 02
Denmark	+45 8212 1212
Estonia	16662
Finland	Maksuton Puhelu: 0800 147 111 Normihinta: +358 9 471 977
France	+33 01 45 42 59 59

Germany	112
Greece	(0030) 2107793777
Hungary	+36 80 201 199
Iceland	+354 543 2222
Ireland	01 837 9964 01 809 2566
Italy	06 3054 343 10 Italian Poison Centres: Rome +39 06-68593726 / +30 06-49978000 / +39 06-3054343, Foggia +39 800183459, Naples +39 081-5453333, Florenze +39 055-7947819, Pavia +39 0382-24444, Milan +39 02-66101029, Bergamo +39 80088300, Verona +39 800011858
Latvia	+370 (5) 2362052
Liechtenstein	01 406 43 43
Lithuania	+370 5 236 20 52 +370 687 533 78
Luxembourg	(+352) 8002 5500
Netherlands	+31 (0) 88 755 8000
Norway	22 59 13 00
Poland	+48 22 619 66 54
Portugal	+351 800 250 250
Romania	+40 21 599 2300
Slovakia	+421 2 5477 4166
Spain	+34 91 562 04 20
Sweden	112
Switzerland	145
United Kingdom	0344 892 0111

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity - Oral	Category 4 - (H302)
Acute toxicity - Dermal	Category 4 - (H312)
Skin corrosion/irritation	Category 1 Sub-category B - (H314)
Serious eye damage/eye irritation	Category 1 - (H318)
Skin sensitization	Category 1 - (H317)
Reproductive toxicity	Category 1B - (H360Fd)
Hazardous to the aquatic environment - acute	Category 1 - (H400)
Hazardous to the aquatic environment - chronic	Category 1 - (H410)

2.2. Label elements

Contains Phenol, 4-nonyl-, branched; 1-Piperazineethanamine; Bisphenol A; 4-tert-Butylphenol; Benzenemethanamine, N,N,-dimethyl-; Phenylalkyl alcohol; Alkyl-Carbomonocyclic-diamine



Signal word
Danger

Hazard statements
H302 - Harmful if swallowed.

H312 - Harmful in contact with skin.
H314 - Causes severe skin burns and eye damage.
H317 - May cause an allergic skin reaction.
H360Fd - May damage fertility. Suspected of damaging the unborn child.
H410 - Very toxic to aquatic life with long lasting effects.

Precautionary Statements - EU (§28, 1272/2008)
P201 - Obtain special instructions before use.
P260 - Do not breathe dust, fume, gas, mist, vapors and spray.
P273 - Avoid release to the environment.
P280 - Wear protective gloves, protective clothing, eye protection and face protection.
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a POISON CENTER or doctor.
P321 - Specific treatment (see supplemental first aid instructions on this label).
P391 - Collect spillage.

Additional information
This product requires tactile warnings if supplied to the general public. This product requires child resistant fastenings if supplied to the general public. Restricted to professional users.

2.3. Other hazards

No information available.

Endocrine Disruptor Information Contains a known or suspected endocrine disruptor.

Chemical name	EU - REACH (1907/2006) - Article 59(1) - Candidate List of Substances of Very High Concern (SVHC) for Authorisation	EU - REACH (1907/2006) - Endocrine Disruptor Assessment List of Substances
Phenol, 4-nonyl-, branched	Endocrine disrupting properties	-
Bisphenol A	Endocrine disrupting properties	-
4-tert-Butylphenol	Endocrine disrupting properties	-

Chemical name	Endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100(3) or Commission Regulation (EU) 2018/605(4)
Phenol, 4-nonyl-, branched	Endocrine disrupting properties
Bisphenol A	Endocrine disrupting properties
4-tert-Butylphenol	Endocrine disrupting properties

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

NonHazardous

Chemical name	Weight-%	REACH registration number	EC No. (Index No.)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)	Notes
Phenol, 4-nonyl-, branched	15-40	Below import reportable	284-325-5 (601-053-00-	Acute Tox. 4 (H302)	-	-	-	-

84852-15-3		quantity threshold or otherwise exempt	8)	Skin Corr. 1B (H314) Repr. 2 (H361fd) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)				
1-Piperazineethanamine 140-31-8	10-30	No data available	205-411-0 (612-105-00-4)	Acute Tox. 4 (H302) Acute Tox. 4 (H312) Skin Corr. 1B (H314) Skin Sens. 1 (H317) Aquatic Chronic 3 (H412)	-	-	-	-
Bisphenol A 80-05-7	5-10	Below import reportable quantity threshold or otherwise exempt	201-245-8 (604-030-00-0)	Skin Sens. 1 (H317) Eye Dam. 1 (H318) STOT SE 3 (H335) Repr. 1B (H360F) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-	1	10	-
Benzenemethanamine, N,N,-dimethyl- 103-83-3	1-5	No data available	203-149-1 (612-074-00-7)	Flam. Liq. 3 (H226) Acute Tox. 4 (H302) Acute Tox. 4 (H312) Skin Corr. 1B (H314) Acute Tox. 4 (H332) Aquatic Chronic 3 (H412)	-	-	-	-
Phenylalkyl alcohol TRADE SECRET	0.1-1	No data available	-	No data available	-	-	-	-
Alkyl-Carbomonocyclic-diamine TRADE SECRET	0.1-1	No data available	-	No data available	-	-	-	-
4-tert-Butylphenol 98-54-4	0.1-1	Below import reportable quantity threshold or otherwise exempt	202-679-0 (604-090-00-8)	Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Repr. 2 (H361f) Aquatic Chronic 1 (H410)	-	-	1	-

Full text of H- and EUH-phrases: see section 16

Acute Toxicity Estimate

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapor - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Phenol, 4-nonyl-, branched 84852-15-3	1300	2000	No data available	No data available	No data available
1-Piperazineethanamine 140-31-8	2097.2	866	No data available	No data available	No data available
Bisphenol A 80-05-7	3300	3000	No data available	No data available	No data available
Benzenemethanamine, N,N,-dimethyl- 103-83-3	265	1655.02	No data available	2.0626	No data available
4-tert-Butylphenol 98-54-4	4000	2318	No data available	No data available	No data available

This product contains one or more candidate substance(s) of very high concern (Regulation (EC) No. 1907/2006 (REACH), Article 59).

Chemical name	CAS No.	SVHC candidates
Phenol, 4-nonyl-, branched	84852-15-3	X
Bisphenol A	80-05-7	X
4-tert-Butylphenol	98-54-4	X

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

Inhalation Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical attention.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get immediate medical attention. May cause an allergic skin reaction.

Ingestion Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get immediate medical attention.

Self-protection of the first aider Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Wear personal protective clothing

(see section 8). Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.

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

Symptoms Burning sensation. Itching. Rashes. Hives.

Effects of Exposure May cause adverse reproductive effects - such as birth defect, miscarriages, or infertility.

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

Note to physicians Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure. May cause sensitization in susceptible persons. Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors. Product is or contains a sensitizer. May cause sensitization by skin contact.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1- Recommendations for those who intervene directly
No information available.

6.1.2.- Recommendations for those who do not intervene directly
No information available.

Personal precautions Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Attention! Corrosive material. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Other information Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Should not be released into the environment. Do not allow to enter into soil/subsoil. Prevent product from entering drains.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Remove contaminated clothing and shoes.

General hygiene considerations Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Store locked up. Protect from moisture. Store away from other materials.

Storage class (TRGS 510) Storage class 6.1C.

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
Bisphenol A 80-05-7	TWA: 2 mg/m³; TWA: 2 mg/m³; inhalable fraction	TWA-TMW: 2 mg/m³; inhalable fraction STEL-KZGW: 5 mg/m³ (); inhalable fraction	TWA: 2 mg/m³;	TWA: 2 mg/m³; inhalable fraction	TWA-GVI: 2 mg/m³; inhalable fraction DS

		S			
Benzenemethanamine, N,N,-dimethyl- 103-83-3	-	-	-	TWA: 5.0 mg/m³;	-
4-tert-Butylphenol 98-54-4	-	TWA-TMW: 0.08 ppm; TWA-TMW: 0.5 mg/m³; STEL-KZGW: 0.4 ppm (2 X 30 min); STEL-KZGW: 2.5 mg/m³ (2 X 30 min); Sk DS	-	-	-
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
Bisphenol A 80-05-7	TWA: 2 mg/m³; inhalable fraction	TWA: 2 mg/m³; aerosol and dust Ceiling: 5 mg/m³; aerosol and dust S	TWA: 2 mg/m³; inhalable STEL: 4 mg/m³; inhalable	TWA: 2 mg/m³; inhalable dust	TWA: 2 mg/m³;
4-tert-Butylphenol 98-54-4	-	-	TWA: 0.08 ppm; TWA: 0.5 mg/m³; STEL: 0.16 ppm; STEL: 1 mg/m³; pSk	-	-
Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
Bisphenol A 80-05-7	TWA-VME (restrictif): 2 mg/m³; inhalable particulates	TWA-AGW; 2 mg/m³ (exposure factor 2.5); inhalable fraction DS	TWA-MAK: 5 mg/m³; I(1);inhalable fraction Peak: 5 mg/m³; inhalable fraction PS	TWA: 2 mg/m³; inhalable fraction	TWA-AK: 2 mg/m³; respirable fraction of the thoracic fraction
4-tert-Butylphenol 98-54-4	-	TWA-AGW; 0.08 ppm (exposure factor 2); TWA-AGW; 0.5 mg/m³ (exposure factor 2); Sk	TWA-MAK: 0.080 ppm; II(2); TWA-MAK: 0.5 mg/m³; II(2); Peak: 0.16 ppm; Peak: 1.0 mg/m³; Sk DS	-	-
Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
Bisphenol A 80-05-7	TWA: 2 mg/m³; inhalable fraction STEL: 6 mg/m³ (calculated); inhalable fraction	TWA: 2 mg/m³; inhalable fraction pSk	-	-	TWA-IPRD: 10 mg/m³; inhalable fraction S
Benzenemethanamine, N,N,-dimethyl- 103-83-3	-	-	-	TWA: 5 mg/m³;	-
Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
Bisphenol A 80-05-7	TWA: 2 mg/m³; inhalable dust	TWA: 2 mg/m³;	TWA: 2 mg/m³; inhalable	TWA: 2 mg/m³; inhalable fraction STEL: 4 mg/m³ (value calculated); inhalable As	TWA-NDS: 2 mg/m³; inhalable fraction
Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
Bisphenol A	TWA (VLE-MP): 2	TWA: 2 mg/m³;	TWA: 2 mg/m³;	TWA: 2 mg/m³;	TWA-(VLA-ED): 2

80-05-7	mg/m³; inhalable fraction	inhalable dust	inhalable fraction	inhalable fraction STEL: 2 mg/m³; inhalable fraction	mg/m³; S
Benzenemethanamine, N,N,-dimethyl- 103-83-3	-	TWA: 0.9 ppm; TWA: 5 mg/m³; STEL: 1.8 ppm; STEL: 10 mg/m³;	-	-	-
4-tert-Butylphenol 98-54-4	-	-	TWA: 0.08 mg/m³; TWA: 0.5 mg/m³;	TWA: 0.08 ppm; TWA: 0.5 mg/m³; STEL: 0.16 ppm; STEL: 1.0 mg/m³; pSk	-

Chemical name	Sweden	Switzerland	United Kingdom
Bisphenol A 80-05-7	TLV-NGV: 2 mg/m³; inhalable fraction	TWA-MAK: 3 mg/m³; inhalable dust S	TWA: 2 mg/m³; inhalable dust STEL: 6 mg/m³; inhalable dust
4-tert-Butylphenol 98-54-4	-	TWA-MAK: 0.08 ppm; aerosol, vapour TWA-MAK: 0.5 mg/m³; aerosol, vapour STEL-KZGW: 0.16 ppm; aerosol, vapour STEL-KZGW: 1 mg/m³; aerosol, vapour S	-

Biological occupational exposure limits

Chemical name	European Union	Austria	Bulgaria	Croatia	Czech Republic
4-tert-Butylphenol 98-54-4	-	-	-	2 mg/L - urine (p-tert-Butylphenol) - at the end of the work shift	-

Chemical name	Denmark	Finland	France	Germany DFG	Germany TRGS
Bisphenol A 80-05-7	-	-	-	80 mg/L - BLW (end of exposure or end of shift) urine	-
4-tert-Butylphenol 98-54-4	-	-	-	2 mg/L (urine - 4-tert-Butylphenol (after hydrolysis) end of exposure or shift) 2 mg/L - BAT (end of exposure or end of shift) urine	2 mg/L (urine - 4-tert-Butylphenol (after hydrolysis) end of exposure or shift)

Chemical name	Latvia	Luxembourg	Romania	Slovakia
4-tert-Butylphenol 98-54-4	-	-	-	2 mg/L (urine - p-tert-Butylphenol end of exposure or work shift)

Chemical name	Slovenia	Spain	Switzerland	United Kingdom
4-tert-Butylphenol 98-54-4	2 mg/L - urine (p-tert-Butylphenol (after hydrolysis)) - at the end of the work shift	-	2 mg/L (urine - p-tert-Butylphenol end of shift) 13.3 µmol/L (urine - p-tert-Butylphenol end of shift)	-

Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
Phenol, 4-nonyl-, branched 84852-15-3	-	7.5 mg/kg bw/day [4] [6] 15 mg/kg bw/day [4] [7]	0.5 mg/m³ [4] [6] 1 mg/m³ [4] [7]
1-Piperazineethanamine 140-31-8	-	3.33 mg/kg bw/day [4] [6]	10.6 mg/m³ [4] [6] 10.6 mg/m³ [4] [7] 15 µg/m³ [5] [6] 80 µg/m³ [5] [7]
Bisphenol A 80-05-7	-	66 µg/kg bw/day [4] [6] 66 µg/kg bw/day [4] [7]	2 mg/m³ [4] [6] 2 mg/m³ [4] [7] 2 mg/m³ [5] [6] 2 mg/m³ [5] [7]
Benzenemethanamine, N,N,-dimethyl- 103-83-3	-	2.1 mg/kg bw/day [4] [6] 4.2 mg/kg bw/day [4] [7]	7.4 mg/m³ [4] [6] 14.8 mg/m³ [4] [7]
4-tert-Butylphenol 98-54-4	-	0.071 mg/kg bw/day [4] [6]	0.5 mg/m³ [4] [6]

Notes

[4] Systemic health effects.
[5] Local health effects.
[6] Long term.
[7] Short term.

Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
Phenol, 4-nonyl-, branched 84852-15-3	0.08 mg/kg bw/day [4] [6] 0.4 mg/kg bw/day [4] [7]	7.6 mg/kg bw/day [4] [6] 7.6 mg/kg bw/day [4] [7]	0.4 mg/m³ [4] [6] 0.8 mg/m³ [4] [7]
Bisphenol A 80-05-7	53 µg/kg bw/day [4] [6] 53 µg/kg bw/day [4] [7]	24 µg/kg bw/day [4] [6] 24 µg/kg bw/day [4] [7]	1 mg/m³ [4] [6] 1 mg/m³ [4] [7] 1 mg/m³ [5] [6] 1 mg/m³ [5] [7]
Benzenemethanamine, N,N,-dimethyl- 103-83-3	0.4 mg/kg bw/day [4] [6] 0.8 mg/kg bw/day [4] [7]	1.5 mg/kg bw/day [4] [6] 1.5 mg/kg bw/day [4] [7]	1.3 mg/m³ [4] [6] 2.6 mg/m³ [4] [7]
4-tert-Butylphenol 98-54-4	0.026 mg/kg bw/day [4] [6]	-	0.09 mg/m³ [4] [6]

Notes

[4] Systemic health effects.
[5] Local health effects.
[6] Long term.
[7] Short term.

Predicted No Effect Concentration (PNEC)

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
Phenol, 4-nonyl-, branched 84852-15-3	0.61 µg/L 2.36 mg/kg food	0.00017 mg/L	0.57 µg/L 2.36 mg/kg food	-	-
1-Piperazineethanamine 140-31-8	0.058 mg/L	0.58 mg/L	0.0058 mg/L	-	-
Bisphenol A 80-05-7	0.0226 mg/L	0.011 mg/L	0.0193 mg/L	-	-
Benzenemethanamine, N,N,-dimethyl-	0.0048 mg/L	0.0134 mg/L	0.00048 mg/L	-	-

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
103-83-3					
4-tert-Butylphenol 98-54-4	46.67 mg/kg food 0.01 mg/L	0.048 mg/L	46.67 mg/kg food 0.001 mg/L	-	-

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
Phenol, 4-nonyl-, branched 84852-15-3	4.62 mg/kg sediment dw	1.23 mg/kg sediment dw	9.5 mg/L	2.3 mg/kg soil dw	-
1-Piperazineethanamine 140-31-8	215 mg/kg sediment dw	21.5 mg/kg sediment dw	250 mg/L	1 mg/kg soil dw	-
Bisphenol A 80-05-7	1.2 mg/kg sediment dw	0.24 mg/kg sediment dw	320 mg/L	3.7 mg/kg soil dw	-
Benzenemethanamine, N,N,-dimethyl- 103-83-3	0.071 mg/kg sediment dw	0.0071 mg/kg sediment dw	534 mg/L	0.0114 mg/kg soil dw	-
4-tert-Butylphenol 98-54-4	0.27 mg/kg sediment dw	0.027 mg/kg sediment dw	1.5 mg/L	0.25 mg/kg soil dw	-

8.2. Exposure controls

Engineering controls No information available.

Personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles). Face protection shield. Tight sealing safety goggles.

Hand protection Wear suitable gloves.

Skin and body protection Wear suitable protective clothing. Chemical resistant apron.

Respiratory protection Use appropriate respiratory protection.

General hygiene considerations Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

Environmental exposure controls No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Liquid
Appearance Viscous Liquid
Color No information available
Odor Mild.
Odor threshold No information available

Property	Values	Remarks • Method
Melting point / freezing point	No data available	None known
Initial boiling point and boiling range	No data available	None known
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Flash point	> 148.89 °C	None known
Autoignition temperature	No data available	None known
Decomposition temperature		None known
pH	No data available	None known
pH (as aqueous solution)	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	5,000-20,000 Centipoise	None known
Water solubility	Insoluble in water	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Vapor pressure	No data available	None known
Relative density	0.5	None known
Bulk density	No data available	
Liquid Density	No data available	
Relative vapor density	No data available	None known
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

9.2. Other information

9.2.1. Information with regard to physical hazard classes
Not applicable

9.2.2. Other safety characteristics
No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No information available.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data
Sensitivity to mechanical impact None.
Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid Exposure to air or moisture over prolonged periods.

10.5. Incompatible materials

Incompatible materials Acids. Bases. Oxidizing agent.

10.6. Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

SECTION 11: Toxicological information

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

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available. Corrosive by inhalation. (based on components). Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs. Pulmonary edema can be fatal.

Eye contact Specific test data for the substance or mixture is not available. Causes serious eye damage. (based on components). Corrosive to the eyes and may cause severe damage including blindness. May cause irreversible damage to eyes.

Skin contact Specific test data for the substance or mixture is not available. Corrosive. (based on components). Causes burns. May cause sensitization by skin contact. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. May be absorbed through the skin in harmful amounts. Harmful in contact with skin.

Ingestion Specific test data for the substance or mixture is not available. Causes burns. (based on components). Ingestion causes burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung damage if swallowed. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Redness. Burning. May cause blindness. Coughing and/ or wheezing. Itching. Rashes. Hives.

Acute toxicity Harmful if swallowed. Harmful by skin contact.

Numerical measures of toxicity

The following ATE values have been calculated for the mixture

ATEmix (oral) 1,201.40 mg/kg
ATEmix (dermal) 1,830.30 mg/kg

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Phenol, 4-nonyl-, branched	= 1300 mg/kg (Rat)	= 2000 mg/kg (Rabbit)	-
1-Piperazineethanamine	= 2140 µL/kg (Rat)	= 866 mg/kg (Rabbit)	-
Bisphenol A	= 3300 mg/kg (Rat)	= 3000 mg/kg (Rabbit)	> 170 mg/m³ (Rat) 6 h

Benzenemethanamine, N,N,-dimethyl-	= 265 mg/kg (Rat)	= 1.66 mL/kg (Rabbit)	= 373 ppm (Rat) 4 h
4-tert-Butylphenol	= 4000 mg/kg (Rat)	= 2318 mg/kg (Rabbit)	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Classification based on data available for ingredients. Causes severe skin burns and eye damage.

Serious eye damage/eye irritation Classification based on data available for ingredients. Causes serious eye damage. Causes burns.

Respiratory or skin sensitization May cause an allergic skin reaction.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

Reproductive toxicity Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. May damage fertility or the unborn child.

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as reproductive toxins.

Chemical name	European Union
Phenol, 4-nonyl-, branched	Repr. 2
Bisphenol A	Repr. 1B
4-tert-Butylphenol	Repr. 2

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties No information available.

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity Very toxic to aquatic life with long lasting effects.

Unknown aquatic toxicity Contains 42.61 % of components with unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Phenol, 4-nonyl-, branched	EC50: 0.36 - 0.48mg/L (96h, Pseudokirchneriella subcapitata) EC50: 0.16 - 0.72mg/L (72h, Pseudokirchneriella subcapitata) EC50: =1.3mg/L (72h, Desmodesmus subspicatus)	LC50: =0.135mg/L (96h, Pimephales promelas) LC50: =0.1351mg/L (96h, Lepomis macrochirus)	-	EC50: =0.14mg/L (48h, Daphnia magna)
1-Piperazineethanamine	EC50: =495mg/L (72h, Pseudokirchneriella subcapitata)	LC50: 1950 - 2460mg/L (96h, Pimephales promelas) LC50: >1000mg/L (96h, Poecilia reticulata) LC50: >=100mg/L (96h, Oncorhynchus mykiss)	-	EC50: =32mg/L (48h, Daphnia magna)
Bisphenol A	EC50: =2.5mg/L (96h, Pseudokirchneriella subcapitata)	LC50: 3.6 - 5.4mg/L (96h, Pimephales promelas) LC50: 4.0 - 5.5mg/L (96h, Pimephales promelas) LC50: =4mg/L (96h, Oncorhynchus mykiss) LC50: =9.9mg/L (96h, Brachydanio rerio)	-	EC50: =10.2mg/L (48h, Daphnia magna) EC50: =3.9mg/L (48h, Daphnia magna) EC50: 9.2 - 11.4mg/L (48h, Daphnia magna)
Benzenemethanamine, N,N,-dimethyl-	-	LC50: 35.8 - 39.9mg/L (96h, Pimephales promelas)	-	-
4-tert-Butylphenol	EC50: =11.2mg/L (72h, Desmodesmus subspicatus)	LC50: 4.71 - 5.62mg/L (96h, Pimephales promelas) LC50: =6.9mg/L (96h, Cyprinus carpio)	-	EC50: =3.9mg/L (48h, Daphnia magna) EC50: 3.4 - 4.5mg/L (48h, Daphnia magna)

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation

Component Information

Chemical name	Partition coefficient
Phenol, 4-nonyl-, branched	5.4
1-Piperazineethanamine	-1.48
Bisphenol A	3.4
Benzenemethanamine, N,N,-dimethyl-	1.98
4-tert-Butylphenol	3

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment The product does not contain any substance(s) classified as PBT or vPvB above the threshold of declaration.

Chemical name	PBT and vPvB assessment
Phenol, 4-nonyl-, branched	Not PBT/vPvB
1-Piperazineethanamine	Not PBT/vPvB
Bisphenol A	Not PBT/vPvB
Benzenemethanamine, N,N,-dimethyl-	Not PBT/vPvB
4-tert-Butylphenol	Not PBT/vPvB

12.6. Endocrine disrupting properties

Endocrine disrupting properties No information available.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

SECTION 14: Transport information

IATA

14.1 UN number or ID number UN 2735
14.2 UN proper shipping name Amines, liquid, corrosive, n.o.s. (3,3'- (Oxybis (2,1-ethane-diyloxy)) bis-1-propanamine) (4-Nonylphenol, 2-Piperazin-1-ylethylamine)
14.3 Transport hazard class(es) 8
14.4 Packing group II
14.5 Environmental hazards Yes
14.6 Special precautions for user Special Provisions None

IMDG

14.1 UN number or ID number UN 2735
14.2 UN proper shipping name Amines, liquid, corrosive, n.o.s. (3,3'- (Oxybis (2,1-ethane-diyloxy)) bis-1-propanamine) (4-Nonylphenol, 2-Piperazin-1-ylethylamine)
14.3 Transport hazard class(es) 8
14.4 Packing group II
14.5 Environmental hazards Yes
14.6 Special precautions for user Special Provisions None
14.7 Maritime transport in bulk according to IMO instruments No information available

RID

14.1 UN number or ID number UN 2735
14.2 UN proper shipping name Amines, liquid, corrosive, n.o.s. (3,3'- (Oxybis (2,1-ethane-diyloxy)) bis-1-propanamine) (4-Nonylphenol, 2-Piperazin-1-ylethylamine)
14.3 Transport hazard class(es) 8
14.4 Packing group II
14.5 Environmental hazards Yes
14.6 Special precautions for user
Special Provisions None

ADR
14.1 UN number or ID number UN 2735
14.2 UN proper shipping name Amines, liquid, corrosive, n.o.s. (3,3'- (Oxybis (2,1-ethane-diyloxy)) bis-1-propanamine) (4-Nonylphenol, 2-Piperazin-1-ylethylamine)
14.3 Transport hazard class(es) 8
14.4 Packing group II
14.5 Environmental hazards Yes
14.6 Special precautions for user
Special Provisions None

SECTION 15: Regulatory information

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

National regulations

Germany
Water hazard class (WGK) strongly hazardous to water (WGK 3)
TA Luft (German Air Pollution Control Regulation)

Chemical name	Number	Class
4-tert-Butylphenol	5.2.5	Class I

Netherlands

Carcinogenic, mutagenic and reproductive toxic effects

Chemical name	Netherlands - List of Carcinogens	Netherlands - List of Mutagens	Netherlands - List of Reproductive Toxins
Phenol, 4-nonyl-, branched	-	-	Fertility Category 2 Development Category 2
Bisphenol A	-	-	Fertility Category 1B
4-tert-Butylphenol	-	-	Fertility Category 2

European Union
Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorizations and/or restrictions on use:
This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorization per REACH Annex XIV
Phenol, 4-nonyl-, branched - 84852-15-3	75	-

1-Piperazineethanamine - 140-31-8	75	-
Bisphenol A - 80-05-7	30 66 75	-
Benzenemethanamine, N,N,-dimethyl- - 103-83-3	75	-
4-tert-Butylphenol - 98-54-4	75	-

Persistent Organic Pollutants
Not applicable

Export Notification requirements
This product contains substances which are regulated pursuant to Regulation (EC) No. 649/2012 of the European parliament and of the council concerning the export and import of dangerous chemicals

Chemical name	European Export/Import Restrictions per (EC) 649/2012 - Annex Number
Phenol, 4-nonyl-, branched - 84852-15-3	I.1 I.2

Dangerous substance category per Seveso Directive (2012/18/EU)
E1 - Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1

Ozone-depleting substances (ODS) Regulation (EU) 2024/590
Not applicable

EU - Water Framework Directive (2000/60/EC)

Chemical name	EU - Water Framework Directive (2000/60/EC)
Phenol, 4-nonyl-, branched - 84852-15-3	Priority hazardous substance

EU - Environmental Quality Standards (2008/105/EC)

Chemical name	EU - Environmental Quality Standards (2008/105/EC)
Phenol, 4-nonyl-, branched - 84852-15-3	Priority hazardous substance

International Inventories

TSCA	Contact supplier for inventory compliance status
DSL/NDSL	Contact supplier for inventory compliance status
EINECS/ELINCS	Contact supplier for inventory compliance status
ENCS	Contact supplier for inventory compliance status
IECSC	Contact supplier for inventory compliance status
KECL	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
AIIC	Contact supplier for inventory compliance status
NZIoC	Contact supplier for inventory compliance status

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing Chemicals Inventory
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AIIC - Australian Inventory of Industrial Chemicals
NZIoC - New Zealand Inventory of Chemicals

15.2. Chemical safety assessment

Chemical Safety Report No information available

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of any hazard and/or precautionary statements referred to under Sections 2-15
H226 - Flammable liquid and vapor
H302 - Harmful if swallowed
H312 - Harmful 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
H332 - Harmful if inhaled
H335 - May cause respiratory irritation
H360F - May damage fertility
H361f - Suspected of damaging fertility
H361fd - Suspected of damaging fertility. Suspected of damaging the unborn child
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
H412 - Harmful to aquatic life with long lasting effects

Legend
SVHC: Substances of Very High Concern for Authorization:
PBT: Persistent, Bioaccumulative, and Toxic (PBT) Substances
vPvB: Very Persistent and very Bioaccumulative (vPvB) Substances
STOT: Specific Target Organ Toxicity
ATE: Acute Toxicity Estimate
LC50: 50% Lethal Concentration
LD50: 50% Lethal Dose

Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	Sk*	Skin designation
+	Sensitizers		

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapor	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitization	Calculation method
Skin sensitization	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Chronic aquatic toxicity	Calculation method
Acute aquatic toxicity	Calculation method
Aspiration hazard	Calculation method

Ozone	Calculation method

Key literature references and sources for data used to compile the SDS
U.S. Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
European Chemicals Agency (ECHA) (ECHA_API)
U.S. Environmental Protection Agency
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan National Institute of Technology and Evaluation (NITE)
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine’s PubMed database (NLM PUBMED)
U.S. National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
International Organization for Economic Co-operation and Development (OECD) Environment, Health, and Safety Publications
International Organization for Economic Co-operation and Development (OECD) High Production Volume Chemicals Program
International Organization for Economic Co-operation and Development (OECD) Screening Information Data Set
United Nations World Health Organization (WHO)

Revision date 20-Oct-2026

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)
Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a 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.

End of Safety Data Sheet