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 06-May-2024 **Revision Number** 2

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

1.1. Product identifier

Safety data sheet number FG-1123A

Product Name Part A:
XTC-3D
Epsilon Pro

Other means of identification

Unique Formula Identifier (UFI) HPW2-80F3-T00E-7S3U

Pure substance/mixture Mixture

Contains Bisphenol A diglycidyl ether; Benzyl alcohol

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

Recommended use Formulated Epoxy Resin

Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Manufacturer
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
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 - Inhalation (Dusts/Mists)	Category 4 - (H332)
Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2 - (H319)
Skin sensitization	Category 1 - (H317)
Chronic aquatic toxicity	Category 3 - (H412)

2.2. Label elements

Contains Bisphenol A diglycidyl ether; Benzyl alcohol

Signal word
Warning

Hazard statements
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H332 - Harmful if inhaled.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary Statements - EU (§28, 1272/2008)
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.

P264 - Wash face, hands and any exposed skin thoroughly after handling.
P280 - Wear protective gloves and eye/face protection.
P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
P501 - Dispose of contents/ container to an approved waste disposal plant.
P321 - Specific treatment (see supplemental first aid instructions on this label).

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

Chemical name	Weight-%	REACH registration number	EC No (EU Index No)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Bisphenol A diglycidyl ether 1675-54-3	75 - 90	Below import quantity threshold or otherwise exempt	216-823-5 (603-073-00-2)	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Skin Sens. 1 (H317)	Eye Irrit. 2 :: C>=5% Skin Irrit. 2 :: C>=5%	-	-
Benzyl alcohol 100-51-6	10 - 20	Below import reportable quantity threshold or otherwise exempt	202-859-9 (603-057-00-5)	Acute Tox. 4 (H302) Eye Irrit. 2 (H319) Skin Sens. 1B (H317)	-	-	-
Silica, amorphous, fumed, crystalline-free 112945-52-5	< 5	Below import reportable quantity threshold or otherwise exempt.	-	No data available	-	-	-

If “No data available” is reported in the REACH Registration Number column, then the chemical substance is imported in quantities that are below the REACH registration threshold or are otherwise exempt from registration
"Below import reportable quantity threshold or otherwise exempt”

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
Bisphenol A diglycidyl ether 1675-54-3	11266.1	20000	No data available	No data available	No data available
Benzyl alcohol	1200 +	2000	4.178	No data available	No data available

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
100-51-6	1230				
Silica, amorphous, fumed, crystalline-free 112945-52-5	3160	No data available	No data available	No data available	No data 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. If symptoms persist, call a physician. If breathing has stopped, give artificial respiration. Get medical attention immediately.

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. Get medical attention.

Self-protection of the first aider Avoid contact with skin, eyes or clothing. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid breathing vapors or mists. Use personal protective equipment as required. See section 8 for more information.

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. Coughing and/ or wheezing. Difficulty in breathing.

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. Avoid breathing vapors or mists.

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. Avoid breathing vapors or mists.

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. Keep out of the reach of children.

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

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
Benzyl alcohol 100-51-6	-	-	-	TWA: 5.0 mg/m³	-
Silica, amorphous, fumed, crystalline-free 112945-52-5	-	TWA: 4 mg/m³	-	-	-
Chemical name	**Cyprus**	**Czech Republic**	**Denmark**	**Estonia**	**Finland**
Benzyl alcohol 100-51-6	-	TWA: 40 mg/m³ Ceiling: 80 mg/m³	-	-	TWA: 10 ppm TWA: 45 mg/m³
Silica, amorphous, fumed, crystalline-free 112945-52-5	-	TWA: 0.1 mg/m³ TWA: 4.0 mg/m³	-	TWA: 2 mg/m³	TWA: 5 mg/m³
Chemical name	**France**	**Germany TRGS**	**Germany DFG**	**Greece**	**Hungary**
Bisphenol A diglycidyl ether 1675-54-3	-	-	skin sensitizer	-	-
Benzyl alcohol 100-51-6	-	TWA: 5 ppm TWA: 22 mg/m³ Sk*	TWA: 22 mg/m³ TWA: 5 ppm Peak: 44 mg/m³ Peak: 10 ppm Sk*	-	-
Silica, amorphous, fumed, crystalline-free 112945-52-5	-	TWA: 4 mg/m³	TWA: 0.02 mg/m³ Peak: 0.16 mg/m³	-	-
Chemical name	**Ireland**	**Italy MDLPS**	**Italy AIDII**	**Latvia**	**Lithuania**
Benzyl alcohol 100-51-6	-	-	-	TWA: 5 mg/m³	TWA: 5 mg/m³ Sk*
Silica, amorphous, fumed, crystalline-free 112945-52-5	TWA: 6 mg/m³ TWA: 2.4 mg/m³ STEL: 18 mg/m³ STEL: 7.2 mg/m³	-	-	TWA: 1 mg/m³	-
Chemical name	**Luxembourg**	**Malta**	**Netherlands**	**Norway**	**Poland**
Benzyl alcohol 100-51-6	-	-	-	-	TWA: 240 mg/m³
Silica, amorphous, fumed, crystalline-free 112945-52-5	-	-	-	TWA: 1.5 mg/m³ STEL: 3 mg/m³	-
Chemical name	**Portugal**	**Romania**	**Slovakia**	**Slovenia**	**Spain**
Benzyl alcohol 100-51-6	-	-	-	TWA: 22 mg/m³ TWA: 5 ppm	-

				STEL: 10 ppm STEL: 44 mg/m³ Sk*	
Silica, amorphous, fumed, crystalline-free 112945-52-5	-	-	-	TWA: 4 mg/m³	-

Chemical name	Sweden	Switzerland	United Kingdom
Benzyl alcohol 100-51-6	-	TWA: 5 ppm TWA: 22 mg/m³ Sk*	-
Silica, amorphous, fumed, crystalline-free 112945-52-5	-	TWA: 4 mg/m³	TWA: 6 mg/m³ TWA: 2.4 mg/m³ STEL: 18 mg/m³ STEL: 7.2 mg/m³

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

Chemical name	Oral	Dermal	Inhalation
Bisphenol A diglycidyl ether 1675-54-3	-	0.75 mg/kg bw/day [4] [6]	4.93 mg/m³ [4] [6]
Benzoic acid, 4-[[(methylphenylamino)methylene]amino]-, ethyl ester 57834-33-0	-	1 mg/kg bw/day [4] [6]	0.6 mg/m³ [4] [6]
Solvent naphtha, petroleum, light aromatic 64742-95-6	-	-	1286.4 mg/m³ [4] [7] 837.5 mg/m³ [5] [6] 1066.67 mg/m³ [5] [7]

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
Bisphenol A diglycidyl ether 1675-54-3	0.5 mg/kg bw/day [4] [6]	-	0.87 mg/m³ [4] [6]
Benzoic acid, 4-[[(methylphenylamino)methylene]amino]-, ethyl ester 57834-33-0	0.1 mg/kg bw/day [4] [6]	-	0.1 µg/m³ [4] [6]
Solvent naphtha, petroleum, light aromatic 64742-95-6	-	-	1152 mg/m³ [4] [7] 178.57 mg/m³ [5] [6] 640 mg/m³ [5] [7]

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
Bisphenol A diglycidyl ether 1675-54-3	0.006 mg/L	0.018 mg/L	0.0006 mg/L	0.0018 mg/L	-
Benzoic acid, 4-[[(methylphenylamino)methylene]amino]-, ethyl ester 57834-33-0	1.4 µg/L	14 µg/L	0.14 µg/L	1.4 µg/L	-

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
Bisphenol A diglycidyl ether 1675-54-3	0.341 mg/kg sediment dw	0.0341 mg/kg sediment dw	10 mg/L	0.0647 mg/kg soil dw	11 mg/kg food
Benzoic acid, 4-[[(methylphenylamino)methylene]amino]-, ethyl ester 57834-33-0	5.26 µg/kg sediment dw	0.526 µg/kg sediment dw	10 mg/L	0.231 µg/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).

Hand protection Wear suitable gloves. Impervious gloves.

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

Respiratory protection Appropriate respiratory protection should be selected and used according to the chemical nature, hazards and use of this product and safety requirements of the local jurisdiction. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

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
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	above 200 °F	
Lower flammability or explosive limits	No data available	
Flash point	> 148.8889 °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	5,000 – 20,000 cPs	None known
Dynamic viscosity	No data available	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	1.0 – 1.2	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 Excessive heat.

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. Harmful by inhalation. (based on components).

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. Coughing and/ or wheezing.

Acute toxicity Harmful by inhalation.

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 5,232.00 mg/kg
ATEmix (dermal) 9,263.50 mg/kg
ATEmix (inhalation-dust/mist) 4.40 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Bisphenol A diglycidyl ether	= 11300 µL/kg (Rat)	= 20000 mg/kg (Rabbit)	-
Benzyl alcohol	= 1230 mg/kg (Rat)	= 2 g/kg (Rabbit)	> 4178 mg/m³ (Rat) 4 h
Silica, amorphous, fumed, crystalline-free	= 3160 mg/kg (Rat)	-	-

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 Harmful to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Benzyl alcohol	-	LC50: =460mg/L (96h, Pimephales promelas) LC50: =10mg/L (96h, Lepomis macrochirus)	-	EC50: =23mg/L (48h, water flea)
Silica, amorphous, fumed, crystalline-free	EC50: =440mg/L (72h, Pseudokirchneriella subcapitata)	LC50: =5000mg/L (96h, Brachydanio rerio)	-	EC50: =7600mg/L (48h, Ceriodaphnia dubia)

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation

Component Information

Chemical name	Partition coefficient
Bisphenol A diglycidyl ether	2.33
Benzyl alcohol	1.05

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
Bisphenol A diglycidyl ether	The substance is not PBT / vPvB
Benzyl alcohol	The substance is 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 3082
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

IMDG

14.1 UN number or ID number UN 3082
14.2 UN proper shipping name Environmentally hazardous substance, liquid, n.o.s. (Epoxy Resin)
14.3 Transport hazard class(es) Not regulated
Subsidiary hazard class 9
14.4 Packing group III
14.5 Environmental hazards Marine Pollutant
14.6 Special precautions for user
Special Provisions None
EmS-No. F-A, S-F
14.7 Maritime transport in bulk No information available

according to IMO instruments

RID

14.1 UN number or ID number	3082
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

ADR

14.1 UN number or ID number	3082
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

SECTION 15: Regulatory information

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

National regulations

France

Occupational Illnesses (R-463-3, France)

Chemical name	French RG number
Benzyl alcohol - 100-51-6	RG 84

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
Bisphenol A diglycidyl ether - 1675-54-3	75	-
Benzyl alcohol - 100-51-6	75	-

Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

Chemical name	EU - Plant Protection Products (1107/2009/EC)
Silica, amorphous, fumed, crystalline-free - 112945-52-5	Plant protection agent

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
KECI	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 and Evaluated Chemical Substances
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 H-Statements referred to under section 3
H302 - Harmful if swallowed
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H332 - Harmful if inhaled

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
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS
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)
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)
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)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Revision date 06-May-2024

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 24-Sep-2024 **Revision Number** 3

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

1.1. Product identifier

Safety data sheet number FG-1123B

Product Name Part B: XTC-3D

Other means of identification

Unique Formula Identifier (UFI) 8RW2-S04H-300X-V3PW

Pure substance/mixture Mixture

Contains 4-tert-Butylphenol; 1,3-Benzenedimethanamine; 2,4,6-Tri(dimethylaminomethyl)phenol; Phenol, 4-nonyl-, branched

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

Recommended use Formulated Epoxy Resin

Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Manufacturer
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
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 - Inhalation (Dusts/Mists)	Category 4 - (H332)
Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 1 - (H318)
Reproductive toxicity	Category 2 - (H361)
Chronic aquatic toxicity	Category 1 - (H410)

2.2. Label elements

Contains 4-tert-Butylphenol; 1,3-Benzenedimethanamine; 2,4,6-Tri(dimethylaminomethyl)phenol; Phenol, 4-nonyl-, branched

Signal word
Danger

Hazard statements
H302 - Harmful if swallowed.
H315 - Causes skin irritation.
H318 - Causes serious eye damage.
H332 - Harmful if inhaled.
H361 - Suspected of damaging fertility or the unborn child.
H361fd - Suspected of damaging fertility. Suspected of damaging the unborn child.
H410 - Very 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/protective clothing/eye protection/face protection.
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.
P391 - Collect spillage.

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

2.3. Other hazards

Toxic to aquatic life.

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
4-tert-Butylphenol	Endocrine disrupting properties	-
Phenol, 4-nonyl-, branched	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)
4-tert-Butylphenol	Endocrine disrupting properties
Phenol, 4-nonyl-, branched	Endocrine disrupting properties

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Chemical name	Weight-%	REACH registration number	EC No (EU Index No)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
4-tert-Butylphenol 98-54-4	30 - 50	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
1,3-Benzenedimethanamine 1477-55-0	10 - 30	Below import reportable quantity threshold or otherwise exempt	216-032-5	No data available	-	-	-
2,4,6-Tri(dimethylaminomethyl)phenol 90-72-2	5 - 10	Below import reportable quantity threshold or otherwise exempt	202-013-9 (603-069-00-0)	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319)	-	-	-
Phenol, 4-nonyl-, branched 84852-15-3	< 5	Below import reportable quantity threshold or otherwise exempt	284-325-5 (601-053-00-8)	Acute Tox. 4 (H302) Skin Corr. 1B (H314) Repr. 2 (H361fd) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-	-	-

If “No data available” is reported in the REACH Registration Number column, then the chemical substance is imported in quantities that are below the REACH registration threshold or are otherwise exempt from registration
"Below import reportable quantity threshold or otherwise exempt”

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
4-tert-Butylphenol 98-54-4	4000	2318	No data available	No data available	No data available
1,3-Benzenedimethanamine 1477-55-0	660	2000	1.38 1.16	No data available	No data available
2,4,6-Tri(dimethylaminomethyl)phenol 90-72-2	1200	1280	No data available	No data available	No data available
Phenol, 4-nonyl-, branched 84852-15-3	1300	2000	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
4-tert-Butylphenol	98-54-4	X
Phenol, 4-nonyl-, branched	84852-15-3	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. Get medical attention immediately if symptoms occur. If symptoms persist, call a physician. If breathing has stopped, give artificial respiration. Get medical attention immediately.

Eye contact Get immediate medical attention. 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.

Skin contact Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.

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

Self-protection of the first aider Avoid contact with skin, eyes or clothing. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid breathing vapors or mists. Use personal protective equipment as

required. See section 8 for more information.

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

Symptoms Burning sensation. Coughing and/ or wheezing. Difficulty in breathing.

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 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 No information available.

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. Use personal protective equipment as required. Ensure adequate ventilation. Avoid breathing vapors or mists.

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. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes. Take off contaminated clothing and wash before reuse. Avoid breathing vapors or mists. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.

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. 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.

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

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
4-tert-Butylphenol 98-54-4	-	TWA: 0.08 ppm TWA: 0.5 mg/m³ STEL 0.4 ppm STEL 2.5 mg/m³ Sk* Sh+	-	-	-
1,3-Benzenedimethanamine 1477-55-0	-	TWA: 0.1 mg/m³ STEL 0.1 mg/m³ Ceiling: 0.1 mg/m³	STEL: 0.1 mg/m³ Sk*	-	-
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
4-tert-Butylphenol 98-54-4	-	-	TWA: 0.08 ppm TWA: 0.5 mg/m³ STEL: 0.16 ppm STEL: 1 mg/m³ Sk*	-	-

1,3-Benzenedimethanamine 1477-55-0	-	-	Sk* Ceiling: 0.02 ppm Ceiling: 0.1 mg/m³	-	Sk* Ceiling: 0.1 mg/m³
Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
4-tert-Butylphenol 98-54-4	-	TWA: 0.08 ppm TWA: 0.5 mg/m³ Sk*	TWA: 0.080 ppm TWA: 0.5 mg/m³ Peak: 0.16 ppm Peak: 1.0 mg/m³ Sk* skin sensitizer	-	-
1,3-Benzenedimethanamine 1477-55-0	STEL: 0.1 mg/m³	-	skin sensitizer	-	-
Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
1,3-Benzenedimethanamine 1477-55-0	TWA: 0.1 mg/m³ STEL: 0.3 mg/m³	-	Sk* Ceiling: 0.018 ppm	-	-
Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
1,3-Benzenedimethanamine 1477-55-0	-	-	-	Ceiling: 0.1 mg/m³	-
Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
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 Sk*	-
1,3-Benzenedimethanamine 1477-55-0	Sk* Ceiling: 0.1 mg/m³	-	-	-	-

Chemical name	Sweden	Switzerland	United Kingdom
4-tert-Butylphenol 98-54-4	-	TWA: 0.08 ppm TWA: 0.5 mg/m³ STEL: 0.16 ppm STEL: 1 mg/m³ S+	-
1,3-Benzenedimethanamine 1477-55-0	-	TWA: 0.1 mg/m³ Sk* 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
4-tert-Butylphenol 98-54-4	-	-	-	2 mg/L (urine - 4-tert-Butylphenol (after hydrolysis) end of shift) 2 mg/L - BAT (end of exposure or end of shift) urine	2 mg/L (urine - 4-tert-Butylphenol (after hydrolysis) end of 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
4-tert-Butylphenol 98-54-4	-	0.071 mg/kg bw/day [4] [6]	0.5 mg/m³ [4] [6]
1,3-Benzenedimethanamine 1477-55-0	-	0.33 mg/kg bw/day [4] [6]	1.2 mg/m³ [4] [6] 0.2 mg/m³ [5] [6]
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]

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
4-tert-Butylphenol 98-54-4	0.026 mg/kg bw/day [4] [6]	-	0.09 mg/m³ [4] [6]
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]

Notes

[4] Systemic 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
4-tert-Butylphenol 98-54-4	0.01 mg/L	0.048 mg/L	0.001 mg/L	-	-
1,3-Benzenedimethanamine 1477-55-0	0.094 mg/L	0.152 mg/L	0.0094 mg/L	-	-
2,4,6-Tri(dimethylaminomethyl)phenol 90-72-2	0.084 mg/L	0.84 mg/L	0.0084 mg/L	-	-
Phenol, 4-nonyl-, branched 84852-15-3	0.000644 mg/L	0.00017 mg/L	0.000548 mg/L	-	-

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
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	46.67 mg/kg food
1,3-Benzenedimethanamine 1477-55-0	12.4 mg/kg sediment dw	1.24 mg/kg sediment dw	10 mg/L	2.44 mg/kg soil dw	-
2,4,6-Tri(dimethylaminomethyl)phenol 90-72-2	-	-	0.2 mg/L	-	-
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	2.36 mg/kg food

8.2. Exposure controls

Engineering controls No information available.

Personal protective equipment

Eye/face protection Tight sealing safety goggles.

Hand protection Wear suitable gloves. Impervious gloves.

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

Respiratory protection Appropriate respiratory protection should be selected and used according to the chemical nature, hazards and use of this product and safety requirements of the local jurisdiction. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

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. 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
Color amber
Odor Mild Fishy Odor.
Odor threshold No information available

Property	Values	Remarks • Method
Melting point / freezing point	No data available	None known
Initial boiling point and boiling range	= 260 °C	None known
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	above 200 °F	
Lower flammability or explosive limits	No data available	
Flash point	148.8889 °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	10 centipoise	None known
Water solubility	Soluble in water < 0.1 g/l	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Vapor pressure	<10.3 mmHg @ 70 °F	None known
Relative density	0.98	None known
Bulk density	No data available	
Liquid Density	No data available	
Relative vapor density	>1	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 Excessive heat.

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. Harmful by inhalation. (based on components).

Eye contact Specific test data for the substance or mixture is not available. Causes serious eye damage. May cause irreversible damage to eyes.

Skin contact Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).

Ingestion Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Harmful if swallowed. (based on components).

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Redness. Burning. May cause blindness. May cause redness and tearing of the eyes. Coughing and/ or wheezing.

Acute toxicity Harmful if swallowed. Harmful by inhalation.

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 1,582.60 mg/kg
ATEmix (dermal) 2,211.20 mg/kg
ATEmix (inhalation-dust/mist) 1.16 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
4-tert-Butylphenol	= 4000 mg/kg (Rat)	= 2318 mg/kg (Rabbit)	-
1,3-Benzenedimethanamine	= 660 mg/kg (Rat)	= 2 g/kg (Rabbit)	= 1.38 mg/L (Rat) 4 h = 1.16 mg/L (Rat) 4 h
2,4,6-Tri(dimethylaminomethyl)phenol	= 1200 mg/kg (Rat)	= 1280 mg/kg (Rat)	-
Phenol, 4-nonyl-, branched	= 1300 mg/kg (Rat)	= 2000 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 skin irritation.

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

Respiratory or skin sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

Reproductive toxicity Classification based on data available for ingredients. Suspected of damaging 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
4-tert-Butylphenol	Repr. 2
Phenol, 4-nonyl-, branched	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. Toxic to aquatic life.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
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)
1,3-Benzenedimethanamine	-	LC50: =87.6mg/L (96h, Oryzias latipes)	-	-
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)

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation

Component Information

Chemical name	Partition coefficient
4-tert-Butylphenol	3
1,3-Benzenedimethanamine	0.18
Phenol, 4-nonyl-, branched	5.4

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
4-tert-Butylphenol	The substance is not PBT / vPvB PBT assessment does not apply
1,3-Benzenedimethanamine	The substance is not PBT / vPvB
2,4,6-Tri(dimethylaminomethyl)phenol	The substance is not PBT / vPvB
Phenol, 4-nonyl-, branched	The substance is 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. (m-Phenylenebis(methylamine), trimethylhexane-1,6-diamine,4-tert-Butylphenol)
14.3 Transport hazard class(es) 8
14.4 Packing group II
14.5 Environmental hazards Marine Pollutant
14.6 Special precautions for user
Special Provisions None

ERG Code 153

IMDG

14.1 UN number or ID number UN 2735
14.2 UN proper shipping name Amines, liquid, corrosive, n.o.s. (m-Phenylenebis(methylamine), trimethylhexane-1,6-diamine,4-tert-Butylphenol)
14.3 Transport hazard class(es) 8
14.4 Packing group II
14.5 Environmental hazards Marine Pollutant
14.6 Special precautions for user
Special Provisions None
EmS-No. F-A, S-B
14.7 Maritime transport in bulk according to IMO instruments No information available

RID

14.1 UN number or ID number 2735
14.2 UN proper shipping name Amines, liquid, corrosive, n.o.s. (m-Phenylenebis(methylamine), trimethylhexane-1,6-diamine,4-tert-Butylphenol)
14.3 Transport hazard class(es) 8
14.4 Packing group II
14.5 Environmental hazards Marine Pollutant
14.6 Special precautions for user
Special Provisions None

ADR

14.1 UN number or ID number 2735
14.2 UN proper shipping name Amines, liquid, corrosive, n.o.s. (m-Phenylenebis(methylamine), trimethylhexane-1,6-diamine,4-tert-Butylphenol)
14.3 Transport hazard class(es) 8
14.4 Packing group II
14.5 Environmental hazards Marine Pollutant
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

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
4-tert-Butylphenol	-	-	Fertility Category 2

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

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
4-tert-Butylphenol - 98-54-4	75	-
2,4,6-Tri(dimethylaminomethyl)phenol - 90-72-2	75	-
Phenol, 4-nonyl-, branched - 84852-15-3	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 (EC) 1005/2009

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
KECI	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 and Evaluated Chemical Substances
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 H-Statements referred to under section 3
H302 - Harmful if swallowed
H314 - Causes severe skin burns and eye damage
H315 - Causes skin irritation
H318 - Causes serious eye damage
H319 - Causes serious eye irritation
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

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

STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS
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)
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)
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)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Revision date 24-Sep-2024

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)
Disclaimer
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End of Safety Data Sheet