Material safety data sheet according to (EC) 1907/2006 — TopFog – Regular, Light

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SECTION 1 : Identification of the substance/ mixture and the company		
1.1 Product identifier		
Product name:	TopFog (Regular, Light)	
Other descriptions:		
Unique Formula Identifier (UFI)	not applicable	
Hazard-determining component(s) for labelling	The product is not subject to labelling according to EC directives or the respective national laws.	
1.2 Relevant identified uses of the substance or mixture and uses advised against		
Identified use:	Fluid for fog generation; visualisation of air flows	
1.3 Details of the supplier of the safety data sheet		
Company name:	Topas GmbH	
Adress:	Gasanstaltstraße 47 DE - 01237 Dresden GERMANY	
Phone:	+49 351 2166 43-0	
Informative division	office@topas-gmbh.de	
1.4 Emergency telephone number		
Phone:	+49 351 2166 43-0	
Contact hours:	Montag – Freitag 08:00 – 17:00	
Poisoning Information Centre:	Not applicable, as not a hazardous substance	
SECTION 2 : Hazards identification		
2.1 Classification of the substance or mixture		
Product definition:	mixture	
Classification in accordance to regulation (EC) no. 1272/2008 (CLP/GHS): Not classified.		
Hazard categories:	The substance is not classified as hazardous according to Regulation (EC) No 1272/2008 [CLP].	

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2.2 Label elements			
Hazard-determining component(s) for labelling	The product is not subject to labelling according to EC directives or the respective national laws.		
2.3 Other dangers			
	This substance/mixture contains no components considered to be either persistent, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher.		
SECTION 3 : Composition/information on ingredients			
3.1 Substances			
Not applicable, product is a mixture.			
3.2 Mixtures			
Product description:	TopFog (Regular, Light)		
EU REACH registration no.:	not applicable		
Ingredients	**EC No.** **CAS No.** **Index No.**	**Material** **Classification according to Directive 67/548/EEC Classification according to Regulation (EC) No. 1272/2008**	**ratio in % (by mass)**
	200-338-0 57-55-6	Propylene glycol	60 - 90
	200-289-5 56-81-5	Glycerine	1 – 30
	7732-18-5	Distilled water	1 - 30
SECTION 4 : First aid measures			
4.1 Description of first aid measures			
General:	In all cases of doubt or if symptoms are present, seek medical advice. Change contaminated, soaked clothing. Wash contaminated clothing before reuse. Supervise affected person.		
After inhalation:	Provide fresh air. In case of accident or if you feel unwell, seek medical advice immediately (show operating instructions or safety data sheet if possible).		
After skin contact:	Wash off with plenty of water. Remove contaminated clothing. Consult a doctor in case of skin reactions.		
After eye contact:	Immediately rinse carefully and thoroughly with eye wash or water. Remove contact lenses. If eye irritation occurs, consult an eye specialist.		

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After ingestion:	Rinse mouth thoroughly with water. Drink plenty of water (maximum 2 drinking glasses). In case of accident or if you feel unwell, seek medical advice immediately (if possible, show operating instructions or safety data sheet).
Self-protection of the first aider:	Do not inhale vapour/aerosol. Clear danger zone, proceed according to emergency plan, consult an expert. For personal protective equipment, see section 8.
4.2 Most important symptoms and effects, both acute and delayed	
	Irritant effects, nausea, vomiting.
4.3 Information on immediate medical assistance or specialised treatment	
	No specific information on medical care and specialised treatment available.
SECTION 5 : Firefighting measure	
5.1 Extinguishing media	
	Coordinate extinguishing measures with the surroundings.
Suitable extinguishing media:	Carbon dioxide. Alcohol-resistant foam. Dry extinguishing agent. Water.
Unsuitable extinguishing media:	There are no extinguishing agent restrictions for this substance/mixture.
5.2 Special hazards arising from the substance or mixture	
	Carbon oxides. Flammable. Vapours are heavier than air and spread above the ground. Explosive mixtures with air are possible when heated to high temperatures. Formation of hazardous combustion gases and vapours possible.
5.3 Instructions for firefighting	
	Wear self-contained breathing apparatus in case of fire.
Additional notes	Do not allow extinguishing water to enter the sewage system or bodies of water.
SECTION 6 : Accidental release measures	
6.1 Personal precautions, protective equipment and emergency procedures	
For non-emergency personnel:	Do not inhale vapour/aerosol. Clear danger zone, proceed according to emergency plan, consult an expert. For personal protective equipment, see section 8.
For emergency responders:	For personal protective equipment, see section 8.
6.2 Environmental precautions	
	Do not allow mixture or contaminated material to enter drains or soil.

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6.3 Methods and material for containment and cleaning up	
	Seal the sewerage system. Collect, dike and pump out. Observe possible material restrictions. Absorb carefully with liquid-binding material (e.g. sand, earth, diatomaceous earth). Dispose of the spill. Clean with water.
6.4 Reference to other sections	
	Personal protective equipment: see section 8
	Disposal: see section 13
SECTION 7 : Handling and storage	
7.1 Precautions for safe handling	
Advice on safe handling and general hygiene in the workplace	See section 2.2. Wash hands before breaks and at the end of work. Avoid contact with eyes and skin. Do not eat, drink or smoke while working. Provide eye showers and label their location
Notes on fire and explosion protection explosion protection	See section 5 Flammable material. Keep away from sources of ignition.
Notes on environmental protection	No special environmental protection measures required.
7.2 Conditions for safe storage, including any incompatibilities	
Requirements for storage rooms and containers	Tightly sealed. Hygroscopic. Sensitive to light. Storage class (TRGS 510): 10 (Flammable liquids)
7.3 Specific end use	
	Apart from the uses mentioned in section 1.2, no other specific end uses are foreseen.
SECTION 8 : Exposure controls/personal protective equipment	
8.1 Parameters to be monitored	
Occupational exposure limits (TRGS 900)	

Ingredient	CAS No.	Value	Parameter to be monitored	Basis
Glycerine	56-81-5	AGW	200 mg/m³	TRGS 900 – workplace exposure limits
Note	A risk of fruit damage need not be feared if the occupational exposure limit value and the biological limit value (BGW) are observed.			

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8.2 Exposure controls and monitoring	
Protective and hygiene measures	Wear suitable protective clothing when working. Change contaminated clothing. Wash hands and face thoroughly before breaks and at the end of work. Do not eat or drink while working.
Eye/face protection	Use safety goggles in accordance with official standards, such as EN 166 (EU) or NIOSH (US).
Hand protection	When handling chemical substances, only chemical protective gloves with a CE mark including a four-digit test number may be worn. Recommended glove brands ISO 374. Full contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Breakthrough time: > 480 min Splash contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Breakthrough time: > 480 min The specifications are based on literature data and information from glove manufacturers or are derived by analogy from similar substances.
Body protection	Wear suitable protective clothing when working.
Respiratory protection	Recommended filter type: Filter A (P2) The employer must ensure that maintenance, cleaning and testing of respiratory protective devices are carried out in accordance with the manufacturer's user information and documented accordingly.
Monitoring environmental exposure	Do not allow to enter the sewage system.
SECTION 9 : Physical and chemical properties	
9.1 Information on basic physical and chemical properties	
Physical state:	Liquid.
Colour:	Colourless.
Odour:	Neutral.
pH:	6 – 8 (20 °C)
Boiling point:	> 100 °C
Flash point:	> 100 °C
Ignition temperature:	not determined
Density:	approx. 1 g/cm³ (20 °C)
Solubility:	complete (water, 20 °C)
Vapour pressure:	not determined

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SECTION 10 : Stability and reactivity	
10.1 Reactivity	
	Explosive mixtures with air are possible, when heated to high temperatures. A range from approx. 15 Kelvin below the flash point is considered critical.
10.2 Chemical stability	
	The product is chemically stable under normal ambient temperatures (room temperature).
10.3 Possibility of hazardous reactions	
	Increased reactivity with: Oxidising agents, acid anhydrides, acid chlorides, various plastics Violent reactions possible with: strong oxidising agents.
10.4 Conditions to avoid	
	Severe heating. Exposure to moisture.
10.5 Incompatible materials	
	Strong oxidising agents.
10.6 Hazardous decomposition products	
	Decomposition products in case of fire: see section 5.
SECTION 11 : Toxicological information	
11.1 Information on hazard classes according to Regulation (EC) No 1272/2008	
Acute effects	**Acute oral toxicity**: Propylene glycol - LD50: 22000 mg/kg - Rat (foreign safety data sheet) Glycerine - LD50: 27200 mg/kg - Rat (foreign safety data sheet) **Acute dermal toxicity**: Propylene glycol - LD50: 2000 mg/kg - Rabbit - (foreign safety data sheet) Glycerine - LD50: > 10000 mg/kg - Rabbit - (foreign safety data sheet)
Irritation and corrosivity:	**Primary irritant effect on the skin**: Propylene glycol - No irritation (Rabbit, 4h, OECD Test Guideline 404; foreign safety data sheet) Glycerine - No data available. **Irritation to eyes**: Propylene glycol - No irritation (Rabbit, OECD Test Guideline 405; foreign safety data sheet) Glycerine - No data available. **Irritation of the respiratory tract**: Propylene glycol - No irritation (Guinea pig, maximisation test, OECD Test Guideline 406; foreign safety data sheet) Glycerine - No data available.

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CMR effects (carcinogenic, mutagenic and toxic to reproduction) Carcinogenicity	Propylene glycol - No data available Glycerine -No component of this product present in a concentration equal to or greater than 0.1% is identified by IARC as a probable, possible or confirmed human carcinogen.
Germ cell mutagenicity	Propylene glycol - No evidence of germ cell mutagenicity in humans available (foreign safety data sheet). Glycerine - No data available.
Reproductive toxicity	No data available.
Specific target organ toxicity - single exposure	No data available.
Specific target organ toxicity - repeated exposure	No data available.
Aspiration hazard	No data available.
11.2 Endocrine disrupting properties:	
	The substance/mixture does not contain components that exhibit endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 in quantities of 0.1% or more.
SECTION 12 : Ecological information	
12.1 Toxicity	
	Propylene glycol **Toxicity to fish**: static test LC50 - Oncorhynchus mykiss (rainbow trout) – 40613 mg/l - 96h (foreign safety data sheet). **Toxicity to daphnia and other aquatic invertebrates**: static test LC50 - Ceriodaphnia dubai (water flea) – 18340 mg/l - 48h (foreign safety data sheet). **Toxicity to algae**: static test Er50 - Pseudokirchneriella subcapitata (green algae) - 19000 mg/l - 96h; OECD test guideline 201 (foreign safety data sheet). **Toxicity to bacteria**: NOEC - Pseudomonas putida - > 20000 mg/l - 18h (foreign safety data sheet). **Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)**: semistatic test NOEC - Ceriodaphnia (water flea) – 29000 mg/l - 7d (foreign safety data sheet). Glycerine **Toxicity to fish**: static test LC50 - Oncorhynchus mykiss (rainbow trout) - 54000 mg/l - 96h (foreign safety data sheet). **Toxicity to daphnia and other aquatic invertebrates**: No data available. **Toxicity to algae**: No data available.

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12.2 Persistence and degradability	
	Propylene glycol **Biodegradability**: aerobically dissolved organic carbon (DOC) - Exposure time 28d; Result: 98.3% - Readily biodegradable. OECD test guideline 301F (foreign safety data sheet). Glycerine **Biodegradability**: aerobic - Exposure time 2d; Result: 90% - Readily biodegradable (foreign safety data sheet).
12.3 Bio accumulative potential	
	No data available.
12.4 Mobility in soil	
	No data available.
12.5 Results of PBT and vPvB assessment	
	This substance/mixture contains no components considered to be either persistent, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher.
12.6 Endocrine disrupting properties	
	Propylene glycol The substance/mixture does not contain components that are endocrine disruptors according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 in quantities of 0.1% or more. Glycerine No data available.
12.7 Other adverse effects	
	Propylene glycol Biological effects: No interference with adapted biological sewage treatment plants to be expected with proper discharge. Stability in water: -2.3a (foreign safety data sheet) Glycerine No data available.
SECTION 13 : Disposal considerations	
13.1 Waste treatment methods	
Recommendation:	Product residues must be disposed of in accordance with national and regional regulations. Leave chemicals in original containers. Do not mix with other waste. Observe Waste Directive 2008/98/EC.
Disposal of uncleaned packaging and recommended cleaning agents:	Uncleaned containers must be treated in accordance with the product.

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SECTION 14 : Transport information	
Land transport (ADR/RID)	
UN number:	No dangerous goods in the sense of these transport regulations.
UN proper shipping name:	No dangerous goods in the sense of these transport regulations.
Transport hazard classes:	No dangerous goods in the sense of these transport regulations.
Packaging group:	No dangerous goods in the sense of these transport regulations.
Sea transport (IMDG)	
UN number:	No dangerous goods in the sense of these transport regulations.
UN proper shipping name:	No dangerous goods in the sense of these transport regulations.
Transport hazard classes:	No dangerous goods in the sense of these transport regulations.
Packaging group:	No dangerous goods in the sense of these transport regulations.
Air transport (ICAO)	
UN number:	No dangerous goods in the sense of these transport regulations.
UN proper shipping name:	No dangerous goods in the sense of these transport regulations.
Transport hazard classes:	No dangerous goods in the sense of these transport regulations.
Packaging group:	No dangerous goods in the sense of these transport regulations.
SECTION 15 : Regulatory information	
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture	
EU regulations:	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency
Additional information:	
National regulations:	Employment restrictions: Observe employment restrictions for young people (§ 22 JArbSchG). Water hazard class: WGK 1, slightly hazardous to water; classification according to AwSV, Annex 1 (4)
15.2 Chemical safety assessment	
	Chemical safety assessments for these substances have not been carried out.
SECTION 16 : Other information	
Abbreviations and acronyms	ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) AGS - Committee for Hazardous Substances AGW - Occupational exposure limit value CAS - Chemical Abstracts Service

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	CLP - Regulation on Classification, Labelling and Packaging of Substances and Mixtures DNEL - Derived No Effect Level DFG - German Research Foundation EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances Gestis - Hazardous Substance Information System of the German Social Accident Insurance GHS: Globally Harmonised System of Classification and Labelling of Chemicals IATA: International Air Transport Association IMDG: International Maritime Code for Dangerous Goods KZGW - Short-term limit value KZW - Short-term value LC50: Lethal concentration, 50% LD50: Lethal dose, 50% LTV - Long Term Value MAK - Maximum workplace concentration value PBT - Persistent, Bio accumulative and Toxic (PBT) PNEC - Predicted No Effect Concentration RID - Regulations concerning the International Carriage of Dangerous Goods by Rail TMW - Daily Mean Value STV - Short-term value SVHC - Substances of Very High Concern vPvB - Highly persistent, high bioakkumulierbar (very Persistent, very Bio accumulative)
Other information	The information in this safety data sheet is correct to the best of our knowledge, information and belief at the date of printing. The information is intended to provide you with guidelines for the safe handling of the product mentioned in this safety data sheet during storage, processing, transport and disposal. The information is not transferable to other products. If the product is mixed, blended or processed with other materials or subjected to processing, the information in this safety data sheet cannot be transferred to the new material produced in this way, unless expressly stated otherwise.

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