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<u> </u>	TION 4. Identification of the	autotance/mixture and of the company/undertaking	
SEC		substance/mixture and of the company/undertaking	
1.1	Product identifier		
		Anti-Brumm® Forte	
1.2	Relevant identified uses of	the substance or mixture and uses advised against	
1.2. <sup>-</sup>	1 Relevant uses		
		Repellent	
1.2.2	2 Uses advised against		
		None known.	
1.3	Details of the supplier of the	ne safety data sheet	
	Distributor	HERMES ARZNEIMITTEL GmbH Georg-Kalb-Strasse 5-8 82049 Großhesselohe / GERMANY Phone +49(0)89 7 91 02-0 Fax +49(0)89 7 91 02-280 E-mail info@hermes-arzneimittel.com	
	Registration Holder	VERFORA Ltd. Route de Moncor 10 1752 Villars-sur-Glâne 1 / SWITZERLAND Phone +41 (0)58 851 93 00 Fax +41 (0)58 851 95 95 Homepage www.verfora.ch E-mail info@verfora.ch	
	Address enquiries to		
	Technical information	info@verfora.ch	
	Safety Data Sheet	sdb@chemiebuero.de	
1.4	Emergency telephone num	ber	
	Company	+41 (0) 58 851 93 00 Mo-Fr 8:00-17:00	

#### 2.1 Classification of the substance or mixture [REGULATION (EC) No 1272/2008]

Flam. Liq. 3: H226 Flammable liquid and vapour. Eye Irrit. 2: H319 Causes serious eye irritation. Aquatic Chronic 3: H412 Harmful to aquatic life with long lasting effects.



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Date printed 09.10.2018, Revision 21.04.2017 Page 2 / 13 Version 06. Supersedes version: 05 2.2 Label elements The product is required to be labelled in accordance with regulation (EC) No 1272/2008 (CLP). Hazard pictograms WARNING Signal word Hazard statements H226 Flammable liquid and vapour. H319 Causes serious eye irritation. H412 Harmful to aquatic life with long lasting effects. **Precautionary statements** P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P273 Avoid release to the environment. 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. P501 Dispose of contents/container in accordance with national/international regulation. Application Instructions for use: For application to the skin as a repellent against mosquitoes and ticks. For seasonal use in outdoor activities. Warning: Do not use more often than once a day for children between the ages of 3 and 12 years. Warning: Do not use more than twice a day for children and non-professional users over 12 vears Warning: Not for use on children under 3 years. Risk mitigation measures: Do not use directly before bathing. Keep out of reach of children. Long sleeved shirt and long pants should be worn. For children aged 3 - 12 years: the product should only be applied by adults. Do not spray the whole body but only exposed skin areas. For facial application, the hands are sprayed first and rubbed over the face. Apply the product sparingly. Avoid hand-to-mouth contact. Avoid contact with eyes. To prevent food contamination, prevent contact of treated skin with food. Avoid any unnecessary contact with the product. Abuse can lead to health problems. Use only in well-ventilated areas. Particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment: Causes serious eve irritation. Rare case reports have associated poisoning symptoms of cramps, headaches, ataxia and/or agitation/restlessness with DEET exposure. First Aid Instructions: In case of contact with eyes rinse thoroughly with water. If swallowed - Rinse out mouth and give plenty of water to drink. Do not induce vomiting. Seek medical advice and show this container or label Instructions for safe disposal of the product and its packaging: Waste of the biocidal product must be disposed of in accordance with the Directive on waste 2008/98/EC and the Waste Catalogue Ordinance (AVV) as well as other national and local regulations. Keep biocidal products in original containers. Do not mix with other waste. Handle uncleaned containers like the product itself. Waste-Code, pesticides: 20 01 19 Waste-Code, not completely emptied packaging: 15 01 10 Do not discharge into the drains/surface waters/groundwater. In case of accidental release, contain and clean up spill with absorbent material (e.g. sand, universal absorbent, diatomaceous earth). Dispose in accordance with national and international regulation. Conditions of storage and shelf-life of the product under normal conditions of storage: Provide solvent-resistant and impermeable floor. Keep only in original container. Do not store together with oxidizing agents. Do not store together with food and animal food/diet. Keep/store out of reach of children. Keep container in a well-ventilated place. Keep in a cool place. Shelf life: 48 months Biocide (528/2012/CE) contains: 29,9 g/100g N,N-diethyl-m-toluamide Registration: DE-2014-MA-19-00002



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### 2.3 Other hazards

Human health dangers	Irritant gases/vapours.
Other hazards	Further hazards were not determined with the current level of knowledge.

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

#### Product-type:

The product is a mixture.

Range [%]	Substance	
30 - < 35 Ethanol		
	CAS: 64-17-5, EINECS/ELINCS: 200-578-6, EU-INDEX: 603-002-00-5, Reg-No.: 01-2119457610-43-XXXX	
	GHS/CLP: Flam. Liq. 2: H225 - Eye Irrit. 2: H319	
25 - < 30 N,N-diethyl-m-toluamide		
CAS: 134-62-3, EINECS/ELINCS: 205-149-7, EU-INDEX: 616-018-00-2		
GHS/CLP: Acute Tox. 4: H302 - Skin Irrit. 2: H315 - Eye Irrit. 2: H319 - Aquatic Chronic 3: H412		
0,1 - < 0,25	Linalyl acetate	
	CAS: 115-95-7, EINECS/ELINCS: 204-116-4	
	GHS/CLP: Aquatic Chronic 2: H411	

Comment on component parts

Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%. For full text of H-statements: see SECTION 16.

#### SECTION 4: First aid measures

4.1	Description of first aid measures General information	Take off contaminated clothing and wash before reuse.
	Inhalation	Ensure supply of fresh air. In the event of symptoms seek medical treatment.
	Skin contact	In unindended or excessive contact with the skin, clean with soap and water. Consult a doctor if skin irritation persists.
	Eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
	Ingestion	Rinse out mouth and give plenty of water to drink. Do not induce vomiting. Get medical advice.

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

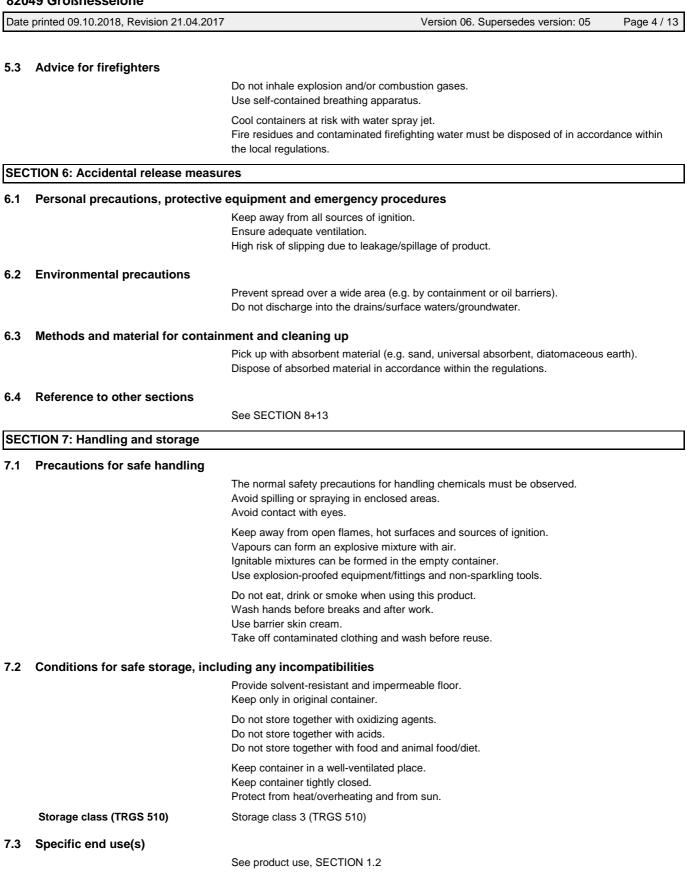
Irritant effects

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

Treat symptomatically.

# SECTION 5: Fire-fighting measures 5.1 Extinguishing media Water spray jet. Alcohol-resistant foam. Dry powder. Extinguishing media that must not be used Full water jet. 5.2 Special hazards arising from the substance or mixture Risk of formation of toxic pyrolysis products. Carbon monoxide (CO). Nitrogen oxides (NOx).





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

#### 8.1 Control parameters

Ingredients with occupational exposure limits to be monitored (DE)

Substance
2-(2-Ethoxyethoxy)-ethanol
CAS: 111-90-0, EINECS/ELINCS: 203-919-7
Exposure limit: 6 ppm, 35 mg/m <sup>3</sup> , AGS, Y, 11
Factor: 2(I)
Ethanol
CAS: 64-17-5, EINECS/ELINCS: 200-578-6, EU-INDEX: 603-002-00-5, Reg-No.: 01-2119457610-43-XXXX
Exposure limit: 200 ppm, 380 mg/m <sup>3</sup> , DFG, Y
Factor: 4 (II)

#### DNEL

Substance	
Ethanol, CAS: 64-17-5	
Industrial, dermal, Long-term - systemic effects: 343 mg/kg/day.	
Industrial, oral, Long-term - systemic effects: 343 mg/kg/day.	
Industrial, inhalative, Long-term - systemic effects: 950 mg/m <sup>3</sup> .	
Industrial, inhalative, Acute - local effects: 1900 mg/m <sup>3</sup> .	
general population, dermal, Long-term - systemic effects: 206 mg/kg/day.	
general population, oral, Long-term - systemic effects: 87 mg/kg/day.	
general population, inhalative, Long-term - systemic effects: 114 mg/kg/day.	
general population, inhalative, Acute - local effects: 950 mg/m <sup>3</sup> .	

#### PNEC

Substance	
Ethanol, CAS: 64-17-5	
sediment (seaater), 2,9 mg/kg.	
sediment (freshwater), 3,6 mg/kg.	
soil, 0,63 mg/kg.	
sewage treatment plants (STP), 580 mg/l.	
seawater, 0,79 mg/l.	
freshwater, 0,96 mg/l.	

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#### 8.2 Exposure controls

Additio	nal advice on system design	Ensure adequate ventilation on workstation.
Eye pro	tection	Safety glasses. (EN 166:2001)
Hand pr	otection	The details concerned are recommendations. Please contact the glove supplier for further information. In full contact: > 0,11 mm, butyl rubber, > 120 min (EN 374)
Skin pro	otection	Not required under normal conditions. Solvent-resistant protective clothing.
Other		Do not inhale gases/vapours/aerosols. Avoid contact with eyes and skin. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier.
Respira	tory protection	Not required under normal conditions. If ventilation is insufficient, wear respiratory protection. Short term: filter apparatus, filter A. (DIN EN 14387)
Therma	l hazards	none
	tion and monitoring of the mental exposition	Protect the environment by applying appropriate control measures to prevent or limit emissions.

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

# 9.1 Information on basic physical and chemical properties

	Form	liquid
	Color	light yellow clear
	Odor	characteristic
	Odour threshold	No information available.
	pH-value	6,08 (21°C, CIPAC MT 75,3-191)
	pH-value [1%]	No information available.
	Boiling point [°C]	No information available.
	Flash point [°C]	29,2 (EN 22719, ASTM D93-85, DIN 51755)
	Flammability (solid, gas) [°C]	not applicable
	Lower explosion limit	No information available.
	Upper explosion limit	No information available.
	Oxidising properties	no
	Vapour pressure/gas pressure [kPa]	No information available. No information available.
	Density [g/ml]	0,9464 (OECD 109)
	Bulk density [kg/m³]	not applicable
	Solubility in water	miscible
	Partition coefficient [n-octanol/water]	No information available.
	Viscosity	6,62-6,78 mPas (20°C, OECD 114) 4,49-4,28 mPas (40°C, OECD 114)
	Relative vapour density determined in air	No information available.
	Evaporation speed	No information available.
	Melting point [°C]	No information available.
	Autoignition temperature [°C]	> 400
	Decomposition temperature [°C]	No information available.
9.2	Other information	



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

#### 10.1 Reactivity

Evolution of flammable mixtures possible in air when heated above flash point and/or during spraying or misting.

#### 10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

#### 10.3 Possibility of hazardous reactions

Reactions with strong oxidizing agents. Reactions with strong acids.

### 10.4 Conditions to avoid

Keep away from open flames, hot surfaces and sources of ignition.

#### 10.5 Incompatible materials

See SECTION 10.3.

#### 10.6 Hazardous decomposition products

No dangerous reactions known if used as directed. In the event of fire: See SECTION 5.

## Safety Data Sheet 1907/2006/EC - REACH (DE) Anti-Brumm® Forte

# HERMES ARZNEIMITTEL GmbH

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Acute toxicity

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Substance

Linalyl acetate, CAS: 115-95-7

LD50, dermal, Rabbit: 15800 mg/kg.

LC50, inhalative, Rat: 30000 mg/m³/4h. N,N-diethyl-m-toluamide, CAS: 134-62-3 LD50, dermal, Rat: > 5000 mg/kg. LD50, oral, Rat: 1892 mg/kg. LC50, inhalative, Rat: > 2,02 mg/l/4h.

Irritant

Non-irritant. On basis of test data

Calculation method

Ethanol, CAS: 64-17-5

LD50, oral, Rat: 13900 mg/kg bw (GESTIS)

# Skin corrosion/irritation Respiratory or skin sensitisation

Serious eye damage/irritation

Specific target organ toxicity -

single exposure Specific target organ toxicity -Based on the available information, the classification criteria are not fulfilled. repeated exposure Mutagenicity Based on the available information, the classification criteria are not fulfilled. **Reproduction toxicity** Based on the available information, the classification criteria are not fulfilled. Carcinogenicity Based on the available information, the classification criteria are not fulfilled. Aspiration hazard Based on the available information, the classification criteria are not fulfilled. **General remarks** Symptoms (If swallowed): abdominal pain, nausea, vomiting. May cause irritation of respiratory organs. The toxicity data listed pertaining to the ingredients are intended for those working in the

# medicinal professions, experts for occupational health and safety and toxicologists. The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

## SECTION 12: Ecological information

#### 12.1 Toxicity

Substance
Ethanol, CAS: 64-17-5
LC50, fish: 11200 mg/l.
EC50, Algae: 1970 mg/l.
EC50, Algae: 275 mg/l.
N,N-diethyl-m-toluamide, CAS: 134-62-3
LC50, (96h), Oncorhynchus mykiss: 97 mg/l.
EC50, (48h), Daphnia magna: 75 ppm.
NOEC, (72h), Pseudokirchneriella subcapitata: 8 mg/l.

Based on the available information, the classification criteria are not fulfilled.

Based on the available information, the classification criteria are not fulfilled.

#### 12.2 Persistence and degradability

Behaviour in environment compartments	No information available.
Behaviour in sewage plant	No information available.
Biological degradability	1 % 28d (CAS 134-62-3)(OECD 301C) 94 % (CAS 64-17-5)(OECD 301E)



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#### 12.3 Bioaccumulative potential

BCF: 0,66 (CAS 64-17-5) logPow: 2,18 (CAS 134-62-3) logPow: -0,31 (CAS 64-17-5)

#### 12.4 Mobility in soil

No information available.

#### 12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

#### 12.6 Other adverse effects

Do not discharge product unmonitored into the environment. The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

#### **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

Waste material c It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

Product	
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		Dispose of as hazardous waste.
	Waste no. (recommended)	070608*
	Contaminated packaging	
		Uncontaminated packaging may be taken for recycling. Packaging that cannot be cleaned should be disposed of as for product.
	Waste no. (recommended)	150110*
SEC	TION 14: Transport information	
14.1	UN number	
	Transport by land according to ADR/RID	1170
	Inland navigation (ADN)	1170
	Marine transport in accordance with IMDG	1170

Air transport in accordance with IATA 1170



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14.2	UN proper shipping name Transport by land according to	Ethanol solution		
	ADR/RID - Classification Code	F1		
	- Label			
		<b>e</b>		
	- ADR LQ	51		
	- ADR 1.1.3.6 (8.6)	Transport category (tunnel restriction cod	e) 3 (D/E)	
	Inland navigation (ADN)	Ethanol solution		
	- Classification Code	F1		
	- Label	•		
	Marine transport in accordance with IMDG	Ethanol solution		
	- EMS	F-E, S-D		
	- Label			
	- IMDG LQ	51		
	Air transport in accordance with IATA	Ethanol solution		
	- Label	•		
14.3	Transport hazard class(es)	•		
	Transport by land according to ADR/RID	3		
	Inland navigation (ADN)	3		
	Marine transport in accordance with IMDG	3		
	Air transport in accordance with IATA	3		
4.4	Packing group			
	Transport by land according to ADR/RID	III		
	Inland navigation (ADN)	Ш		
	Marine transport in accordance with IMDG	III		

Air transport in accordance with IATA III

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#### 14.5 Environmental hazards

Transport by land according tonoADR/RIDnoInland navigation (ADN)no

Marine transport in accordance with no IMDG

Air transport in accordance with IATA no

#### 14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

#### 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

No information available.

SECTION 15: Regulatory information	

#### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture **EEC-REGULATIONS** 1991/689 (2001/118); 2010/75; 2004/42; 648/2004; 1907/2006 (REACH); 1272/2008; 75/324/EEC (2016/2037/EC); (EU) 2015/830; (EU) 2016/131; (EU) 517/2014 TRANSPORT-REGULATIONS DOT-Classification, ADR (2017); IMDG-Code (2017, 38. Amdt.); IATA-DGR (2018). NATIONAL REGULATIONS (DE): Hazardous Substances Ordinance - GefStoffV 2016; Detergent and Cleaning Agents Act -WRMG; Federal Water Act - WHG; Technical Rule for Hazardous Substances - TRGS: 200, 220, 615, 900, 905. - Water hazard class 2, conf. AwSV, 18.04.2017 - Decree for case of interference, ves observe limits - Class. according to TA-Luft 525 - Storage class (TRGS 510) Storage class 3 (TRGS 510) - Observe employment restrictions Observe employment restrictions for young people. for people - VOC (2010/75/CE) ca. 33 % - Other regulations BGI 621: Information sheet: Solvents (M 017). Please note BG leaflet BGI 595: Irritative substances/caustic substances when at work. TRGS 510: Storage of hazardous substances in non-stationary containers 15.2 Chemical safety assessment For the following substances of this preparation a chemical safety assessment has been carried out: Ethanol SECTION 16: Other information 16.1 Hazard statements

#### 6.1 Hazard statement (SECTION 03)

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

H315 Causes skin irritation.

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

H225 Highly flammable liquid and vapour.



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6.2 Abbreviations and acronyms:	
	ADR = Accord européen relatif au transport international des marchandises Dangereuses pa
	Route RID = Règlement concernant le transport international ferroviaire de marchandises
	dangereuses
	ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
	ATE = acute toxicity estimate CAS = Chemical Abstracts Service
	CLP = Classification, Labelling and Packaging
	DMEL = Derived Minimum Effect Level DNEL = Derived No Effect Level
	EC50 = Median effective concentration
	ECB = European Chemicals Bureau EEC = European Economic Community
	EINECS = European Inventory of Existing Commercial Chemical Substances
	ELINCS = European List of Notified Chemical Substances GHS = Globally Harmonized System of Classification and Labelling of Chemicals
	IATA = International Air Transport Association
	IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
	IC50 = Inhibition concentration, 50%
	IMDG = International Maritime Code for Dangerous Goods IUCLID = International Uniform ChemicaL Information Database
	LC50 = Lethal concentration, 50%
	LD50 = Median lethal dose LC0 = lethal concentration, 0%
	LOAEL = lowest-observed-adverse-effect level MARPOL = International Convention for the Prevention of Marine Pollution from Ships
	NOAEL = No Observed Adverse Effect Level
	NOEC = No Observed Effect Concentration PBT = Persistent, Bioaccumulative and Toxic substance
	PNEC = Predicted No-Effect Concentration
	REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals STP = Sewage Treatment Plant
	TLV®/TWA = Threshold limit value – time-weighted average
	TLV®STEL = Threshold limit value – short-time exposure limit VOC = Volatile Organic Compounds
	vPvB = very Persistent and very Bioaccumulative
6.3 Other information	
Classification procedure	Flam. Liq. 3: H226 Flammable liquid and vapour. (On basis of test data) Eye Irrit. 2: H319 Causes serious eye irritation. (Calculation method) Aquatic Chronic 3: H412 Harmful to aquatic life with long lasting effects. (Calculation method
Modified position	SECTION 2 been added: P501 Dispose of contents/container in accordance with national/international regulation.
	SECTION 2 deleted: P501 Dispose of contents/container in accordance with local/national regulation.
	SECTION 2 been added: P337+P313 If eye irritation persists: Get medical advice / attention.
	SECTION 2 deleted: P261 Avoid breathing spray.
	SECTION 7 been added: Do not eat, drink or smoke when using this product.
	SECTION 7 been added: Use explosion-proofed equipment/fittings and non-sparkling tools.
	SECTION 7 been added: Avoid contact with eyes.
	SECTION 9 been added: No information available.
	SECTION 9 deleted: not determined
	SECTION 11 been added: Based on the available information, the classification criteria are not fulfilled.
	SECTION 11 deleted: not determined
	SECTION 11 been added: On basis of test data
	SECTION 12 been added: No information available.
	SECTION 12 deleted: not determined



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