



MATERIAL SAFETY DATA SHEET

According to Regulation (EC) 1907/2006

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product name : AVERY SURFACE CLEANER
Product code : ZA1206
Application : SU22 Professional use. For industrial or institutional use. PC35 Cleaning agent.
Supplier : Avery Dennison Graphics and Reflective Products
Rijndijk 86
2394 AJ Hazerswoude, The Netherlands
Telephone : +31-71-342 16 61
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E-mail : peter.kuivenhoven@eu.averydennison.com

EMERGENCY TELEPHONE NUMBER, for DOCTORS/FIRE BRIGADE/POLICE only:

NL - Telephone : +31-71-342 16 61 (During office hours only)

EMERGENCY TELEPHONE NUMBER (for DOCTORS only):

National Poisons Information Service +44-844 892 0111 (24/7)

2 HAZARDS IDENTIFICATION

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Classification : Sensitizing. Irritant. Flammable. Dangerous for the environment.
CLP classification (GHS) : Flammable liquid, category 2. Eye irritation, hazard category 2. Skin sensitization, hazard category 1. Specific target organ toxicity after single exposure, hazard category 3. Hazardous to the aquatic environment — Chronic hazard category 2.
Human health hazards : Causes serious eye irritation. May cause sensitisation by skin contact. Vapours may cause drowsiness and dizziness.
Physical/chemical hazards : Flammable.
Environmental hazards : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Other information : Keep out of the reach of children. Avoid contact with skin. Wear suitable gloves. Do not breathe spray. Use only in well-ventilated areas.

Label elements (99/45/EC):

Hazard symbols :



Xi: Irritant



N: Dangerous for the environment

R- and S-phrases : R10 Flammable.
R36 Irritating to eyes.
R43 May cause sensitisation by skin contact.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R67 Vapours may cause drowsiness and dizziness.
S23 Aerosol Do not breathe spray.
S24 Avoid contact with skin.
S37 Wear suitable gloves.
S51 Use only in well-ventilated areas.

Label elements (1272/2008/EC):



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Hazard pictograms :



Signal word : Danger

H- and P-phrases :

H225	Highly flammable liquid and vapour.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
P210	Keep away from heat/sparks/open flames/hot surfaces. — No smoking.
P370+P378 alc	In case of fire: Use carbondioxide (CO ₂), alcohol resistant foam, dry chemical or water fog for extinction.
P261 spray	Avoid breathing spray.
P280 hands eyes	Wear protective gloves and eye protection.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P273	Avoid release to the environment.
P391	Collect spillage.
P501	Dispose of contents/container to an official chemical waste depot.

Additional labelling

- : Contains: d-Limonene
- : Where the mixture is labelled in accordance with Regulation (EC) No 1272/2008 (CLP) the packaging shall carry the text: Contains: Propan-2-ol
- : 5 percent of the mixture consists of ingredient(s) of unknown toxicity.

3 COMPOSITION / INFORMATION ON INGREDIENTS

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Product description : Mixture.

Information on hazardous substances:

Substance name	Concentration (w/w) (%)	CAS nr.	EC nr.	Symbols	R-phrases
Propan-2-ol	50 - 75	67-63-0	200-661-7	F; Xi	11-36-67
d-Limonene	1 - 5	5989-27-5	227-813-5	Xi; N	10-38-43-50/53
2-Butoxyethanol	1 - 5	111-76-2	203-905-0	Xn	20/21/22-36/38

Reference is made to chapter 16 for full text of each relevant R phrase. Occupational exposure limit(s), if relevant, are listed in section 8.

Substance name	REACH nr.	Hazard Class	Pictograms	H-phrases
Propan-2-ol	01-2119457558-25	Flam. Liq. 2; Eye Irrit. 2; STOT SE 3	GHS02; GHS07	H225; H319; H336
d-Limonene	01-2119529223-47	Flam. Liq. 3; Skin Irrit. 2; Skin Sens. 1; Aquatic Acute 1; Aquatic Chronic 1	GHS02; GHS07; GHS09	H226; H315; H317; H410
2-Butoxyethanol	01-2119475108-36	Acute Tox. 4; Eye Irrit. 2; Skin Irrit. 2	GHS07	H332; H312; H302; H319; H315

Product name : Avery Surface Cleaner

Date of issue : 10-05-2012

Replaces issue dated : 01-02-2008

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Reference is made to chapter 16 for full text of each relevant H phrase.

4 FIRST-AID MEASURES

Effects and symptoms

- Inhalation : May cause headache, drowsiness, dizziness and a feeling of sickness. May cause irritation to respiratory airways and coughing.
- Skin contact : May cause redness and irritation, sensitisation. May produce an allergic reaction. May cause dry skin and redness.
- Eye contact : Irritant. May cause redness and pain.
- Ingestion : May cause a feeling of sickness, vomiting and diarrhoea.

First aid measures

- Inhalation : Move victim into fresh air. Consult a doctor if victim feels unwell.
- Skin contact : Take off contaminated clothing. Wash off skin with plenty of water and soap before product dries up. Consult a doctor if irritation occurs.
- Eye contact : Wash out with (lukewarm) water for at least 15 minutes. Remove contact lenses. Consult a doctor.
- Ingestion : Do not induce vomiting. Do rinse the mouth. Give one glass of water. Never give anything by mouth to an unconscious person. Consult a doctor immediately.

5 FIRE-FIGHTING MEASURES

Extinguishing media

- Suitable : Carbondioxide (CO₂). Alcohol resistant foam. Dry chemical. Water fog.
- Not suitable : Water jet.

Special exposure hazards : None known.

Hazardous thermal decomposition products : Carbon monoxide may be evolved if incomplete combustion occurs.

Special protective equipment for fire-fighters : Use adequate respiratory equipment in case of insufficient ventilation.

6 ACCIDENTAL RELEASE MEASURES

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Personal precautions : Danger of slipping. Clean up spills immediately. Wear shoes with non-slip soles. Avoid contact with spilled or released material. See also section 8. Keep away from sources of ignition — No smoking. Vapours are heavier than air. Build up (of gasses) in low areas involves risk of suffocation.

Environmental precautions : Avoid release of product into sewers, surface water and/or ground water. Large spills: contain with dike. Waste product should not be allowed to contaminate soil or water.

Methods for cleaning up : Collect spilled material in containers. Absorb residues in sand or other inert material. Dispose at an authorised waste collection point. Wash away remainder with plenty of water and soap.

Other information : Notify authorities if any exposure to the general public or the environment occurs or is likely to occur.

7 HANDLING AND STORAGE

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Handling : Handle in accordance with good occupational hygiene and safety practices in well-ventilated areas. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Electrostatic discharge may cause fire. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Do not breathe spray. Do not breathe vapour. Avoid contact with skin and eyes.



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- Storage : Keep frost-free, in a cool, dry and well-ventilated place (< 35 °C). Keep away from oxidizing agents.
Protect from sunlight.
- Recommended packaging : Keep only in the original container.
- Non recommended packaging : Steel (except stainless steel).
- Use : Use only as directed. Do not mix with other products.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION *

- Engineering measures : Use only in well-ventilated areas. Comply with standard precautionary measures for working with chemicals.
- Hygienic measures : When using do not eat, drink or smoke.
- Occupational exposure limits : Occupational exposure limits have not been established for this product.

Workplace exposure limits (mg/m³):

Chemical name	Country	TWA 8 hour (mg/m ³)	STEL 15 min (mg/m ³)	Comments
Propan-2-ol	GB	999	1250	-
d-Limonene		110	-	MAC: DE, CH, NL
2-Butoxyethanol	GB	123	246	Skin; BMGV
2-Butoxyethanol	EC	100	246	Skin

Personal protective equipment:

The efficiency of personal protective equipment depends among other things on temperature and degree of ventilation. Always get professional advice for the particular local situation.



- Body protection : Wear appropriate protective clothing, overalls or suit, and similar boots in accordance with EN 365/367 resp. 345. Suitable material: nitril. Indication of permeation breakthrough time: 1 hour.
- Respiratory protection : Take care of sufficient ventilation. Wear suitable respiratory protection in case of large scale exposure. Suitable: gas filter type AK (brown/green), class I or higher on e.g. a facemask in accordance with EN 140.
- Hand protection : Wear appropriate safety gloves in accordance with EN 374. Suitable material: nitril. ± 0,5 mm Indication of permeation breakthrough time: 1 hour.
- Eye protection : Wear appropriate safety glasses with side shields, in accordance with EN 166, when there is danger of possible eye contact.

9 PHYSICAL AND CHEMICAL PROPERTIES *

- Appearance : Liquid.
- Colour : Green.
- Odour : Characteristic.
- Odour treshold : Not known.
- pH : 11
- Solubility in water : Soluble.
- Partition coefficient (n-octanol/water) : Not known.
- Flash point : 22 °C (PMcc)
- Auto ignition temperature : > 230 °C



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Boiling point/boiling range	: 82 °C	
Melting point/melting range	: < -20 °C	
Explosion limits (in air)	: Not known.	Lower explosion limit in air (%): 0,7 (d-Limonene)
		Upper explosion limit in air (%): 12 (Propan-2-ol)
Oxidising properties	: Not applicable.	
Decomposition temperature	: Not applicable.	
Viscosity (20°C)	: Not known.	(1 mm ² /sec = 1cSt)
Viscosity (40°C)	: < 7 mm ² /sec	
Vapour pressure (20°C)	: Not known.	
Vapour density (20°C)	: Not known.	(air = 1)
Relative density (20°C)	: 0,88 g/ml	
Evaporation rate	: Not known.	(n-butyl acetate = 1)

10 STABILITY AND REACTIVITY

Stability	: Stable under normal conditions.
Conditions to avoid	: See section 7.
Materials to avoid	: Keep away from oxidizing agents.
Hazardous decomposition products	: Not known.
Reactivity	: No other hazardous reactions known.

11 TOXICOLOGICAL INFORMATION

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No toxicological research has been carried out on this product.

Inhalation

Acute toxicity	: Calculated LC50: 10 mg/l. Ingredients of unknown toxicity: 5 %. ATE: > 5 mg/l. Low toxicity. Not classified - based on available data, the classification criteria are not met. Target organ(s): Central nervous system. May cause headache, drowsiness, dizziness and a feeling of sickness.
Corrosion/irritation	: May cause irritation to respiratory airways and coughing.
Sensitisation	: Does not contain respiratory sensitisers. Not classified - based on available data, the classification criteria are not met.
Carcinogenicity	: Not classified - based on available data, the classification criteria are not met.
Mutagenicity	: Does not contain mutagenic substances. Not classified - based on available data, the classification criteria are not met.

Skin contact

Acute toxicity	: Calculated LD50: > 5000 mg/kg.bw. Ingredients of unknown toxicity: 1 %. ATE: > 2000 mg/kg.bw. Low toxicity. Not classified - based on available data, the classification criteria are not met.
Corrosion/irritation	: Irritant. May cause redness.
Sensitisation	: May cause sensitisation by skin contact. May produce an allergic reaction.
Mutagenicity	: Does not contain mutagenic substances. Not classified - based on available data, the classification criteria are not met.

Eye contact

Corrosion/irritation	: Irritant.
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Ingestion

Acute toxicity	: Calculated LD50: > 5000 mg/kg.bw. Ingredients of unknown toxicity: 1 %. ATE: > 2000 mg/kg.bw. Low toxicity. Not classified - based on available data, the classification criteria are not met. May cause hampered eyesight.
Corrosion/irritation	: May cause a feeling of sickness, vomiting and diarrhoea.
Carcinogenicity	: Not classified - based on available data, the classification criteria are not met.
Mutagenicity	: Does not contain mutagenic substances. Not classified - based on available data, the classification criteria are not met.



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Toxicological information:

Chemical name	Property		Method	Test animal	
Propan-2-ol	Mutagenicity	Negative	OECD 471		
	NOEL (oral)	870 mg/kg.d		Rat	
	NOEL (carcinogenicity, inh.)	12500 mg/m3		Mouse	
	LD50 (oral)	4396 mg/kg	-----	Rat	
	LD50 (dermal)	12800 mg/kg	-----	Rat	
	Eye irritation	Irritant	OECD 405	Rabbit	
	Skin sensitisation	Not sensitizing	OECD 406	Guinea pig	
	Genotoxicity - in vitro	Not genotoxic	OECD 476		
	NOAEL (fertility, oral)	407 mg/kg.d		Rat	
	NOAEL (development, oral)	400 mg/kg.d		Rat	
	LC50 (inhalation)	46600 mg/m3	-----	Rat	
	NOAEL (oral)	870 mg/kg.d		Rat	
	NOEL (carcinogenicity, oral)	Not carcinogenic	OECD 416	Rat	
	Percutaneous absorption	7,1 %			
	Percutaneous absorption	1650 ug/cm2/h			
	NOAEL (inhalation)	12500 mg/m3	OECD 451	Rat	
	Skin irritation	Slightly irritant	OECD 404	Rabbit	
	Genotoxicity - in vivo	Not genotoxic	OECD 474	Mouse	
	d-Limonene	Mutagenicity	Negative	OECD 471	
NOEL (oral)		5 mg/kg.d	-----	Rat	
LD50 (oral)		4400 mg/kg	-----	Rat	
LD50 (dermal)		> 2000 mg/kg	-----	Rabbit	
Skin sensitisation		10075 ug/cm2	OECD 429	Mouse	
Skin sensitisation		10000 ug/cm2	HRIPT	Human	
Genotoxicity - in vitro		Not genotoxic			
NOAEL (development, oral)		600 mg/kg.d		Rat	
NOAEL (oral)		30 mg/kg.d		Rat	
NOEL (carcinogenicity, oral)		Not carcinogenic			
Skin irritation		Irritant	-----	-----	
2-Butoxyethanol		Mutagenicity	Negative	OECD 471	Salmonella typhimurium
		LD50 (oral)	1746 mg/kg	OECD 401	Rat
	LD50 (dermal)	435 mg/kg	OECD 402	Rabbit	
	NOAEL (dermal)	> 150 mg/kg.d	OECD 411	Rabbit	
	Eye irritation	Irritant	OECD 405	Rabbit	
	Skin sensitisation	Not sensitizing	OECD 406	Guinea pig	
	Genotoxicity - in vitro	Not genotoxic			
	NOAEL (fertility, oral)	720 mg/kg.d			
	NOAEL (development, oral)	> 100 mg/kg.d	OECD 414	Rat	
	LC50 (inhalation)	2200 mg/m3	OECD 403	Rat	
	NOAEL (oral)	< 69	OECD 408	Rat	
	NOEL (carcinogenicity, oral)	Not carcinogenic			
	Percutaneous absorption	198 ug/cm2/h			



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	NOAEL (inhalation)	152 mg/m ³	OECD 413	Rat
	Skin irritation	Irritant	OECD 404	Rabbit
	Genotoxicity - in vivo	Not genotoxic	OECD 474	Mouse

12 ECOLOGICAL INFORMATION

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No ecotoxicological research has been carried out on this product.

- Ecotoxicity : Toxic to aquatic organisms. Calculated LC₅₀ (fish): 15 mg/l. Calculated EC₅₀ (waterflea): 7 mg/l.
Contains < 1 % of components with unknown hazards to the aquatic environment.
- Mobility : If product enters soil, it will be highly mobile and may contaminate groundwater.
- Persistence – degradability : May cause long-term adverse effects in the aquatic environment.
- Bioaccumulative potential : No specific information known.
- Other information : Not applicable.

Ecological information:

Chemical name	Property		Method	Test animal
d-Limonene	LC ₅₀ (fish)	0,720 mg/l	OECD 203	Pimephales promelas Daphnia magna
	NOEC (waterflea) - chronic	0,15 mg/l.d		
	Ultimate aerobic biodegradation (%)	> 92 %		
	EC ₅₀ (waterflea)	0,36 mg/l	OECD 202	Daphnia magna
	Log P(ow)	4,2000		

13 DISPOSAL CONSIDERATIONS

- Product residues : Do not dispose empty pack with waste produced by households. Containers may be recycled. Treat product residues and non-empty pack as hazardous waste.
- Additional warning : Residues may cause an explosion hazard. Do not puncture, cut or weld uncleaned drums.
- European waste catalogue : Dispose hazardous waste in accordance with Directive 91/689/EEC under acknowledgement of a waste code according to Commission Decision 2000/532/EC to an official chemical waste depot.
- Local legislation : Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements and must be complied with.

14 TRANSPORT INFORMATION

- UN nr. : UN 1993
- Transport name : FLAMMABLE LIQUID, N.O.S. (Propan-2-ol ; d-Limonene)

ADR/RID (road / railway)

- Class : 3
- Classification code : F1
- Packaging group : II
- Danger label : 3 + N



IMDG (sea)



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Class : 3
Packaging group : II
EmS (fire / spill) : F - E / S - E
Marine pollutant : No

IATA (air)
Class : 3

Other information : Country specific variations may apply. It is possible that a "Limited Quantity" exemption applies to the transport of this product.

15 REGULATORY INFORMATION

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Community regulations : Regulation (EC) No 1907/2006 (REACH), Regulation (EC) No 1272/2008 (CLP) and other regulations.

Other information : The packaging shall carry the text:

Ingredient declaration according to Regulation 648/2004:

Contains:	Concentration (%)
Aliphatic hydrocarbons	< 5
d-Limonene	

16 OTHER INFORMATION

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The information in this safety data sheet is compiled in compliance with Regulation (EC) 1907/2006 dated 18 December 2006 and accurate to the best of our knowledge and experience at the date of issue specified. It is the user's obligation to use this product safely and to comply with all applicable laws and regulations concerning the use of the product. This safety data sheet complements the technical information sheets but does not replace them and offers no warranty with regard to product properties.

Users are also forewarned for any hazards involved when the product is used for other purposes than those for which it is designed.

Changed or new information with regard to the previous release is indicated with an asterisk (*).

Full text of R-phrases mentioned in section 3:

R10 Flammable.
R11 Highly flammable.
R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R36 Irritating to eyes.
R36/38 Irritating to eyes and skin.
R38 Irritating to skin.
R43 May cause sensitisation by skin contact.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R67 Vapours may cause drowsiness and dizziness.

Full text of H-phrases mentioned in section 3:

H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H336 May cause drowsiness or dizziness.
H410 Very toxic to aquatic life with long lasting effects.



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Number format : "," used as decimal separator.

History

Date of first issue : 15-09-2007

Date of second issue : 01-02-2008

Date of third issue : 10-05-2012

Herewith all previous issues are expired.