



MATERIAL SAFETY DATASHEET

conforms to Directive 2001/58/EC

1. Chemical product and company identification

Trade name **Avery Surface Cleaner**
MSDS number 4048
Application cleaning and degreasing

Supplier Avery Dennison Graphics Europe
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2. Composition / information on ingredients

Description of substances responsible for the classification of the preparation:

Chemical name	EC number	Percentage	Symbol(s)	R – phrase(s)
Isopropanol (2-propanol)	200-661-7	> 50	F, Xi	11-36-67
D-limonene	227-813-5	5 – 15	Xn,Nq	10-36-43-50/53-65
Butylglycol	203-905-0	1 – 5	Xn	20/21/22-36/38
Ammonia	215-647-6	< 1	C,N	34-50

Occupational exposure limit(s), if relevant, are listed in section 8.

3. Hazard identification

Human health hazards irritating to eyes; vapours may cause drowsiness and dizziness; may cause sensitization by skin contact

Chemical hazards Flammable

Environmental hazards toxic to aquatic systems: may cause long-term adverse effects to the aquatic environment

4. First aid measures

Effects and symptoms

Inhalation in high concentrations: irritation, coughing, sore throat, head ache, dizziness. Drowsiness, unconsciousness or laborious breathing

Skin may cause irritation/redness

Eyes redness, pain, reduced/poor visibility, inflammation/damage of cornea

Ingestion irritation of lips, mouth and pharunx, nausea, stomach ache. Also see 'inhalation'

First aid measures

Inhalation fresh air, rest; call physician if complaints persist

Skin contact wash with copious amounts of water; remove contaminated clothing and wash before re-use

Eye contact immediately flush with water for at least 15 minutes (remove contact lenses) seek medical attention.

Ingestion rinse mouth with water; do NOT induce vomiting. Immediately seek medical attention

5. Fire fighting measures

Suitable extinguishing media alcohol resistant foam, carbon dioxide, dry chemical powder, atomized water

Non suitable media full water jet

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Specific exposure risks
Protection for fire fighters

vapours spread over the floor: may be ignited from a distance
self contained breathing apparatus

6. Accidental release measures

Personal precautions spills of 50 litres and more: immediately clear area. Alert safety expert.
Ventilate area and wear personal protection
Environmental precautions avoid product from entering sewers, surface waters and/or soil
Methods for cleaning up cover absorbed product with foam to reduce flammability/risk of explosion.
Collect mechanically with spark free tools and store in container for disposal.
Flush floor with lots of water and drain this into sewer.

7. Handling and storage

Handling take usual precautions when handling chemicals; keep away from sources of ignition – no smoking; avoid contact with eyes and skin
Storage keep container well closed in ventilated, fire proof area
Suitable packaging materials PET
Non suitable packagings aluminium

8. Exposure controls/personal protection

Engineering measures only use in well ventilated area
Hygienic measures wash hands before break or after use

Occupational exposure limits

Chemical name	MAC - 8 hrs		MAC 15 min	
Isopropylalcohol	250 ppm	650 mg/m ³	-	-
Ammonia	20 ppm	14 mg/m ³	50 ppm	36 mg/m ³
Butylglycol	20 ppm	100 mg/m ³	50 ppm	246 mg/m ³

Personal protective equipment

Product degreases the skin: may cause eczematic skin disease based on sensitization of the skin (in which case any future contact by skin must be avoided). Inhalation of high concentrations may affect the brain.
Aberration of liver and/or kidneys may occur.

The efficacy of protective equipment depends o. a of temperature and degree of ventilation. Always take expert advice about local situation.

Personal equipment

(in case exposure is unavoidable)
Respiratory protection respiratory protection, filter type A
Hand protection nitrill rubber gloves, f.e. Marigold® Long Nitrosolv or Blue Nitril
Eye protection normally not necessary

9. Physical and chemical properties

Physical state liquid
Colour green
Odour specific
pH n.d.
Solubility in water dilution with water will cause separation of product
Log P Octanol/water n.d.
Flashpoint 22 °C
Autoignition temperature appr. 400 °C
Boiling point / range from 82 °C
Freezing point / range product will turn hazy at appr. 12 °C

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Explosion limits	2 – 12 % by volume
Decomposition temperature	n.d.
Viscosity at 20°C	< 10 mPa . s
Relative density at 20°C	appr. 0.882 g.ml
Evaporation range	n.d.
Vapour pressure at 20°C	appr. 42 mbar

10. Stability and reactivity

Stability	stable under normal conditions
Conditions to avoid	keep away from heat, open fire
Materials to avoid	acids and oxidizing materials/substances
Hazardous decomposition products	carbon oxides and nitrous oxides

11. Toxicological information

With the product as such, no toxicological survey has been carried out. Based on the composition as given in section 2, the product is labeled as irritant.

chemical name	LD50 oral (rat)	LD50 dermal (rabbit)	LC50 inhalation (rat)
Isopropylalcohol	> 2000 mg/kg	> 2000 mg/kg	n.d.
Butyl glycol	1480 mg/kg	> 490 mg/kg	2,2 mg/l/4hr
D-limonene	> 5000 mg/kg	> 5000 mg/kg	n.d.
Contact with the skin	dry skin, may cause redness/irritation		
Sensitization	may cause sensitization by skin contact		

12. Ecological information

With the product as such, no ecotoxicological survey has been carried out. Based on the composition as given in section 2, the product is labeled as : toxic to the aquatic environment.

Ecotoxicological effects

Ecotoxicity	toxic to the aquatic organisms, LC50 < 10 mg/l
Mobility	partly soluble in water
Persistency and degradability	n.d.
Bioaccumulation	not expected

13. Disposal considerations

Product	in general the product can be used completely
European Waste Code	product: 07 01 04 packaging: 15 01 10
National regulations	disposal in compliance with local/national regulations

14. Transport information

UN number	1993
ADR class	limited quantities according prescription 3.4.6 (LQ4) in quantities up to 3 litre per inner packaging and 12 litres per collo
Classification code	F1
Packaging group	II
Proper shipping name (bulk)	1993 FLAMMABLE LIQUID, N.O.S.
CEPIC transport card	30G30

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IMDG class	3.2
Packaging group	II
EmS	3-06
MFAG	305

15. Regulatory information

Hazard symbol(s) Xi (irritant), N (dangerous for the environment)

Risk phrases

R10 flammable
R36 irritating to eyes
R43 may cause sensitization by skin contact
R67 vapours may cause drowsiness and dizziness
R51/53 toxic to aquatic organisms: may cause long-term adverse effects in the aquatic environment

Safety phrases

S23 do not breathe vapour/spray
S24 avoid contact with skin
S37 wear suitable gloves
S51 use only in well-ventilated areas
S60 this material and its container must be disposed of as hazardous waste

Additional EC regulations Dangerous Preparations Directives 67/548/EEC and 1999/45/EC

Additional national regulations -

16 Other information

This safety data sheet conforms to EC directive 2001/58/EC of 27 July 2001. The data given here are based on our current knowledge and expertise and the purpose of this safety data sheet is to describe the product in terms of its safety requirements. The data do not signify any warranty with regard to the properties of the product.

Although reasonable care has been taken in the preparation of this document to assess and summarise the hazard properties of the product, the user must satisfy himself that the information contained herein is pertinent to permit safe handling under his use conditions, since the supplier cannot foresee all conditions of use. It is advised to pass this information on to all personnel/parties concerned, if necessary in an appropriate format.

Explanation of the R phrases mentioned in section 2

R10 flammable
R11 highly flammable
R20/21/22 harmful by inhalation, in contact with skin and if swallowed
R34 causes burns
R36 irritating to eyes
R36/38 irritating to eyes and skin
R43 may cause sensitization by skin contact
R50 very toxic to aquatic organisms
R50/53 very toxic to aquatic organisms: may cause long-term adverse effects to the aquatic environment
R65 harmful: may cause lung damage if swallowed
R67 vapours may cause drowsiness and dizziness

Explanation of the abbreviations used in this data sheet

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n.d. not determined

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