

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 21.01.2025

Version number 1.0

Revision: 21.01.2025

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier****Trade name:** Low Odor Adhesion Promoter**Article number:** I-UV-ADHPR2-200**1.2 Relevant identified uses of the substance or mixture and uses advised against****Product category** PC18 Ink and toners**Application of the substance / the mixture**

Printing inks

Adhering additive

1.3 Details of the supplier of the safety data sheet

Avery Dennison Digital Ink Solutions

250 Chester Street, Building 7

Painesville, OH 44077 - USA

1-877-214-0909

Manufacturer/Supplier:

Avery Dennison

Willem Einthovenstraat 11

2342 BH Oegstgeest - The Netherlands

T +31 85 000 20 77

central.sales@eu.averydennison.com

Further information obtainable from: reflective.product.compliance@averydennison.com**1.4 Emergency telephone number:** Verisk 3E Europe Non-Specific: +1 760 476 3962; Access Code: 335740**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008**

Flam. Liq. 3 H226 Flammable liquid and vapour.

Eye Dam. 1 H318 Causes serious eye damage.

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H335 May cause respiratory irritation.

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

2.2 Label elements**Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

Hazard pictograms

GHS02

GHS05

GHS07

GHS09

Signal word Danger**Hazard-determining components of labelling:**

ethyl lactate

hexamethylene diacrylate

acrylic acid

(Contd. on page 2)

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 21.01.2025

Version number 1.0

Revision: 21.01.2025

Trade name: Low Odor Adhesion Promoter

(Contd. of page 1)

Unsaturated carboxylic acid dimer

Hazard statements

H226 Flammable liquid and vapour.

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

H411 Toxic 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.

P103 Read carefully and follow all instructions.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

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/doctor.

P321 Specific treatment (see on this label).

P362+P364 Take off contaminated clothing and wash it before reuse.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards No additional information available.**SECTION 3: Composition/information on ingredients****3.2 Mixtures****Description:** Mixture of substances listed below with nonhazardous additions.**Dangerous components:**

CAS: 13048-33-4	hexamethylene diacrylate	25 - 50%
EINECS: 235-921-9	Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1,	
Index number: 607-109-00-8	H317	
CAS: 97-64-3	ethyl lactate	≥ 10 - ≤ 50%
EINECS: 202-598-0	Flam. Liq. 3, H226; Eye Dam. 1, H318; STOT SE 3, H335	
Index number: 607-129-00-7		
	Unsaturated carboxylic acid oligomer	≥ 2.5 - < 25%
	Aquatic Chronic 4, H413	
CAS: 79-10-7	acrylic acid	≥ 5 - ≤ 10%
EINECS: 201-177-9	Flam. Liq. 3, H226; Skin Corr. 1A, H314; Aquatic Acute 1, H400; Acute Tox.	
Index number: 607-061-00-8	4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	
	Specific concentration limit: STOT SE 3; H335: C ≥ 1 %	
	Unsaturated carboxylic acid dimer	≥ 3 - ≤ 10%
	Eye Dam. 1, H318; Skin Sens. 1, H317	
CAS: 67-63-0	isopropanol	≥ 0 - ≤ 2.5%
EINECS: 200-661-7	Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	
Index number: 603-117-00-0		

Additional information: For the wording of the listed hazard phrases refer to section 16.**SECTION 4: First aid measures****4.1 Description of first aid measures****General information:** Immediately remove any clothing soiled by the product.

(Contd. on page 3)

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 21.01.2025

Version number 1.0

Revision: 21.01.2025

Trade name: Low Odor Adhesion Promoter

(Contd. of page 2)

After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

After skin contact: Immediately wash with water and soap and rinse thoroughly.

After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing: Drink plenty of water and provide fresh air. Call for a doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents:

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

5.2 Special hazards arising from the substance or mixture No further relevant information available.

5.3 Advice for firefighters

Protective equipment: No special measures required.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralising agent.

Dispose contaminated material as waste according to section 13.

Ensure adequate ventilation.

6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

Information about fire - and explosion protection: No special measures required.

7.2 Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: Keep container tightly sealed.

7.3 Specific end use(s) No further relevant information available.

EU

(Contd. on page 4)

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 21.01.2025

Version number 1.0

Revision: 21.01.2025

Trade name: Low Odor Adhesion Promoter

(Contd. of page 3)

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

79-10-7 acrylic acid

IOELV Short-term value: 59* mg/m³, 20* ppmLong-term value: 29 mg/m³, 10 ppm

*reference period of 1 minute

Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls

Appropriate engineering controls No further data; see section 7.

Individual protection measures, such as personal protective equipment

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Hand protection



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye/face protection



Tightly sealed goggles

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Physical state

Liquid

Colour:

According to product specification

Odour:

Characteristic

Odour threshold:

Not determined.

Melting point/freezing point:

Undetermined.

(Contd. on page 5)

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 21.01.2025

Version number 1.0

Revision: 21.01.2025

Trade name: Low Odor Adhesion Promoter

(Contd. of page 4)

Boiling point or initial boiling point and boiling range	107 °C (13048-33-4 hexamethylene diacrylate)
Flammability	Not applicable.
Lower and upper explosion limit	
Lower:	Not determined.
Upper:	Not determined.
Flash point:	23 - 60 °C
Decomposition temperature:	Not determined.
pH	Not determined.
Viscosity:	
Kinematic viscosity	Not determined.
Dynamic:	Not determined.
Solubility	
water:	Not miscible or difficult to mix.
Partition coefficient n-octanol/water (log value)	Not determined.
Vapour pressure:	Not determined.
Density and/or relative density	
Density:	Not determined.
Relative density	Not determined.
Vapour density	Not determined.

9.2 Other information

Appearance:	
Form:	Liquid
Important information on protection of health and environment, and on safety.	
Ignition temperature:	Product is not selfigniting.
Explosive properties:	Not determined.
Solvent separation test:	
Solids content:	20.9 %
Change in condition	
Evaporation rate	Not determined.

Information with regard to physical hazard classes

Explosives	Void
Flammable gases	Void
Aerosols	Void
Oxidising gases	Void
Gases under pressure	Void
Flammable liquids	Flammable liquid and vapour.
Flammable solids	Void
Self-reactive substances and mixtures	Void
Pyrophoric liquids	Void
Pyrophoric solids	Void
Self-heating substances and mixtures	Void
Substances and mixtures, which emit flammable gases in contact with water	Void
Oxidising liquids	Void
Oxidising solids	Void
Organic peroxides	Void
Corrosive to metals	Void
Desensitised explosives	Void

SECTION 10: Stability and reactivity**10.1 Reactivity** No further relevant information available.

(Contd. on page 6)

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 21.01.2025

Version number 1.0

Revision: 21.01.2025

Trade name: Low Odor Adhesion Promoter

(Contd. of page 5)

10.2 Chemical stability

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

10.3 Possibility of hazardous reactions No dangerous reactions known.

10.4 Conditions to avoid No further relevant information available.

10.5 Incompatible materials: No further relevant information available.

10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification:

ATE (Acute Toxicity Estimates)

Oral LD50 > 3,987 - ≤ 11,962 mg/kg (rat)

Dermal LD50 > 4,466 - ≤ 13,397 mg/kg

Inhalative LC50/4 h > 175 - ≤ 526 mg/l

13048-33-4 hexamethylene diacrylate

Oral LD50 > 5,000 mg/kg (rat)

Dermal LD50 > 3,000 mg/kg (rab)

79-10-7 acrylic acid

Oral LD50 250 mg/kg (rat)

Dermal LD50 280 mg/kg (rabbit)

Inhalative LC50/4 h 11 mg/l (ATE)

67-63-0 isopropanol

Oral LD50 5,045 mg/kg (rat)

Dermal LD50 12,800 mg/kg (rabbit)

Inhalative LC50/4 h 30 mg/l (rat)

Primary irritant effect:

Skin corrosion/irritation Based on available data, the classification criteria are not met.

Serious eye damage/irritation Causes serious eye damage.

Respiratory or skin sensitisation May cause an allergic skin reaction.

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Carcinogenicity Based on available data, the classification criteria are not met.

Reproductive toxicity Based on available data, the classification criteria are not met.

STOT-single exposure May cause respiratory irritation.

STOT-repeated exposure Based on available data, the classification criteria are not met.

Aspiration hazard Based on available data, the classification criteria are not met.

11.2 Information on other hazards

Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity: No further relevant information available.

12.2 Persistence and degradability No further relevant information available.

12.3 Bioaccumulative potential No further relevant information available.

12.4 Mobility in soil No further relevant information available.

(Contd. on page 7)

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 21.01.2025

Version number 1.0

Revision: 21.01.2025

Trade name: Low Odor Adhesion Promoter

(Contd. of page 6)

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Endocrine disrupting properties The product does not contain substances with endocrine disrupting properties.

12.7 Other adverse effects

Additional ecological information:

General notes:

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

Danger to drinking water if even small quantities leak into the ground.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

* SECTION 14: Transport information

14.1 UN number or ID number

ADR, IMDG, IATA

UN1993

14.2 UN proper shipping name

ADR

1993 FLAMMABLE LIQUID, N.O.S. (ETHYL LACTATE, ACRYLIC ACID, STABILIZED)

IMDG, IATA

FLAMMABLE LIQUID, N.O.S. (ETHYL LACTATE, ACRYLIC ACID, STABILIZED)

14.3 Transport hazard class(es)

ADR, IMDG, IATA



Class

3 Flammable liquids.

Label

3

14.4 Packing group

ADR, IMDG, IATA

III

14.5 Environmental hazards:

Product contains environmentally hazardous substances: acrylic acid

14.6 Special precautions for user

Warning: Flammable liquids.

Hazard identification number (Kemler code):

30

EMS Number:

F-E,S-E

Stowage Category

A

14.7 Maritime transport in bulk according to IMO instruments

Not applicable.

(Contd. on page 8)

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 21.01.2025

Version number 1.0

Revision: 21.01.2025

Trade name: Low Odor Adhesion Promoter

(Contd. of page 7)

Transport/Additional information:**ADR****Limited quantities (LQ)**

5L

Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

Transport category

3

Tunnel restriction code

D/E

IMDG**Limited quantities (LQ)**

5L

Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

UN "Model Regulation":

UN 1993 FLAMMABLE LIQUID, N.O.S. (ETHYL LACTATE, ACRYLIC ACID, STABILIZED), 3, III

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****Directive 2012/18/EU****Named dangerous substances - ANNEX I** None of the ingredients is listed.**Seveso category**

E2 Hazardous to the Aquatic Environment

P5c FLAMMABLE LIQUIDS

Qualifying quantity (tonnes) for the application of lower-tier requirements 200 t**Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t**REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3**DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

REGULATION (EU) 2019/1148**Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.*** SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

This Safety Data Sheet is in compliance with Regulation (EC) No 1907/2006, Article 31 as amended by Regulation (EU) 2020/878.

(Contd. on page 9)

EU

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

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Version number 1.0

Revision: 21.01.2025

Trade name: Low Odor Adhesion Promoter

(Contd. of page 8)

Relevant phrases

H225 Highly flammable liquid and vapour.
 H226 Flammable liquid and vapour.
 H302 Harmful if swallowed.
 H312 Harmful in contact with skin.
 H314 Causes severe skin burns and eye damage.
 H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H318 Causes serious eye damage.
 H319 Causes serious eye irritation.
 H332 Harmful if inhaled.
 H335 May cause respiratory irritation.
 H336 May cause drowsiness or dizziness.
 H400 Very toxic to aquatic life.
 H411 Toxic to aquatic life with long lasting effects.
 H413 May cause long lasting harmful effects to aquatic life.

Department issuing SDS: Environment, Health, and Safety Department.**Contact:** Environmental, Health, and Safety Department**Date of previous version:** 26.01.2024**Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

ATE: Acute toxicity estimate values

Flam. Liq. 2: Flammable liquids – Category 2

Flam. Liq. 3: Flammable liquids – Category 3

Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1A: Skin corrosion/irritation – Category 1A

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Skin Sens. 1: Skin sensitisation – Category 1

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

Aquatic Chronic 4: Hazardous to the aquatic environment - long-term aquatic hazard – Category 4

*** Data compared to the previous version altered.**