



Safety Data Sheet according to (EC) No 1907/2006

Page 1 of 10

384 Output(TM) Adhesive

sds no. : 153510
V002.4

Revision: 25.09.2012
printing date: 29.08.2014

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

384 Output(TM) Adhesive

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use:
Anaerobic

1.3. Details of the supplier of the safety data sheet

Henkel Limited
2 Bishop Square Business Park
AL109EY Herfordshire Hatfield

Great Britain

Phone: +44 1606 593933
Fax-no.: +44 1606 863762

ua-productsafety.uk@uk.henkel.com

1.4. Emergency telephone number

24 Hours Emergency Tel: +44 (0)1442 278497

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (DPD):

Xi - Irritant
R36/37/38 Irritating to eyes, respiratory system and skin.
Sensitizing
R43 May cause sensitisation by skin contact.

2.2. Label elements

Label elements (DPD):

Xi - Irritant



Risk phrases:

R36/37/38 Irritating to eyes, respiratory system and skin.
R43 May cause sensitisation by skin contact.

Safety phrases:

S24 Avoid contact with skin.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28 After contact with skin, wash immediately with plenty of water and soap.
S36/37 Wear suitable protective clothing and gloves.

Contains:

Hydroxypropyl methacrylate

2.3. Other hazards

None if used properly.

SECTION 3: Composition/information on ingredients

General chemical description:

Anaerobic adhesive

Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Tetrahydrofurfuryl methacrylate 2455-24-5	219-529-5	15- 25 %	Skin irritation 2; Dermal H315 Serious eye irritation 2 H319 Specific target organ toxicity - single exposure 3; Inhalation H335
Hydroxypropyl methacrylate 27813-02-1	248-666-3	1- 10 %	Skin sensitizer 1; Dermal H317 Serious eye irritation 2 H319
Cumene hydroperoxide 80-15-9	201-254-7	1- < 3 %	Acute toxicity 4; Dermal H312 Specific target organ toxicity - repeated exposure 2 H373 Acute toxicity 3; Inhalation H331 Acute toxicity 4; Oral H302 Organic peroxides E H242 Chronic hazards to the aquatic environment 2 H411 Skin corrosion 1B H314
Cumene 98-82-8	202-704-5	0,1- 1 %	Flammable liquids 3 H226 Aspiration hazard 1 H304 Specific target organ toxicity - single exposure 3 H335 Chronic hazards to the aquatic environment 2 H411

For full text of the H - statements and other abbreviations see section 16 "Other information".
Substances without classification may have community workplace exposure limits available.

Declaration of ingredients according to DPD (EC) No 1999/45:

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Tetrahydrofurfuryl methacrylate 2455-24-5	219-529-5	15 - 25 %	Xi - Irritant; R36/37/38
Hydroxypropyl methacrylate 27813-02-1	248-666-3	1 - 10 %	Xi - Irritant; R36, R43
Cumene hydroperoxide 80-15-9	201-254-7	1 - < 3 %	T - Toxic; R23 Xn - Harmful; R21/22, R48/20/22 O - Oxidizing; R7 C - Corrosive; R34 N - Dangerous for the environment; R51/53
Cumene 98-82-8	202-704-5	0,1 - 1 %	R10 Xn - Harmful; R65 Xi - Irritant; R37 N - Dangerous for the environment; R51/53

For full text of the R-Phrases indicated by codes see section 16 'Other Information'.
Substances without classification may have community workplace exposure limits available.

SECTION 4: First aid measures**4.1. Description of first aid measures****Inhalation:**

Move to fresh air. If symptoms persist, seek medical advice.

Skin contact:

Rinse with running water and soap.
Seek medical advice.

Eye contact:

Rinse immediately with plenty of running water (for 10 minutes). Seek medical attention if necessary.

Ingestion:

Rinse out mouth, drink 1-2 glasses of water, do not induce vomiting.
Seek medical advice.

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

SKIN: Rash, Urticaria.

SKIN: Redness, inflammation.

EYE: Irritation, conjunctivitis.

RESPIRATORY: Irritation, coughing, shortness of breath, chest tightness.

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

See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Carbon dioxide, foam, powder

Extinguishing media which must not be used for safety reasons:

None known

5.2. Special hazards arising from the substance or mixture

None

Trace amounts of toxic and/or irritating fumes may be released and the use of breathing apparatus is recommended.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

Additional information:

In case of fire, keep containers cool with water spray.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid skin and eye contact.

6.2. Environmental precautions

Do not let product enter drains.

6.3. Methods and material for containment and cleaning up

For small spills wipe up with paper towel and place in container for disposal.

For large spills absorb onto inert absorbent material and place in sealed container for disposal.

6.4. Reference to other sections

See advice in chapter 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Use only in well-ventilated areas.

Avoid skin and eye contact.

Prolonged or repeated skin contact should be avoided to minimise any risk of sensitisation.

Hygiene measures:

Good industrial hygiene practices should be observed.

Wash hands before work breaks and after finishing work.

Do not eat, drink or smoke while working.

7.2. Conditions for safe storage, including any incompatibilities

Store above 2°C (35.6°F).

< + 8°C

7.3. Specific end use(s)

Anaerobic

SECTION 8: Exposure controls/personal protection**8.1. Control parameters**

Valid for

Great Britain

Ingredient	ppm	mg/m ³	Type	Category	Remarks
CUMENE 98-82-8			Skin designation:	Can be absorbed through the skin.	EH40 WEL
CUMENE 98-82-8	50	250	Short Term Exposure Limit (STEL):		EH40 WEL
CUMENE 98-82-8	25	125	Time Weighted Average (TWA):		EH40 WEL
CUMENE 98-82-8	50	250	Short Term Exposure Limit (STEL):	Indicative	ECTLV
CUMENE 98-82-8	20	100	Time Weighted Average (TWA):	Indicative	ECTLV

Biological Exposure Indices:**8.2. Exposure controls:**

Engineering controls:

Ensure good ventilation/extraction.

Respiratory protection:

Use only in well-ventilated areas.

Filter type: A

Hand protection:

Chemical-resistant protective gloves (EN 374).

Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):

nitrile rubber (NBR; \geq 0.4 mm thickness)

Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):

nitrile rubber (NBR; \geq 0.4 mm thickness)

This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:

Wear protective glasses.

Skin protection:
Wear suitable protective clothing.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	paste
	blue
Odor	mild
pH	Not determined
Initial boiling point	> 150 °C (> 302 °F)
Flash point	> 93,3 °C (> 199.94 °F)
Decomposition temperature	No data available / Not applicable
Vapour pressure (20 °C (68 °F))	< 6,5 mbar
Density (ρ)	1,6 - 1,7 g/cm ³
Bulk density	No data available / Not applicable
Viscosity	No data available / Not applicable
Viscosity (kinematic)	No data available / Not applicable
Explosive properties	No data available / Not applicable
Solubility (qualitative) (Solvent: Water)	Slight
Solubility (qualitative) (Solvent: Acetone)	Partially soluble
Solidification temperature	No data available / Not applicable
Melting point	No data available / Not applicable
Flammability	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Explosive limits	No data available / Not applicable
Partition coefficient: n-octanol/water	No data available / Not applicable
Evaporation rate	No data available / Not applicable
Vapor density	No data available / Not applicable
Oxidising properties	No data available / Not applicable

9.2. Other information

No data available / Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

Strong oxidizing agents.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

Stable under normal conditions of storage and use.

10.5. Incompatible materials

No data available.

10.6. Hazardous decomposition products

carbon oxides.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****General toxicological information:**

The preparation is classified based on the conventional method outlined in Article 6(1)(a) of Directive 1999/45/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Oral toxicity:

May cause irritation to the digestive tract.

Inhalative toxicity:

Irritating to respiratory system

Skin irritation:

Irritating to the skin.

Eye irritation:

Irritating to eyes.

Sensitizing:

May cause sensitization by skin contact.

Acute toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Cumene hydroperoxide 80-15-9	LD50	550 mg/kg	oral	4 h	rat	
	LC50	220 ppm	inhalation		rat	
	LD50	500 mg/kg	dermal		rat	

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Cumene hydroperoxide 80-15-9	corrosive		rabbit	

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Cumene hydroperoxide 80-15-9	positive	bacterial reverse mutation assay (e.g Ames test)	without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Cumene hydroperoxide 80-15-9	negative	dermal		mouse	

SECTION 12: Ecological information**General ecological information:**

The preparation is classified based on the conventional method outlined in Article 6(1)(a) of Directive 1999/45/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Ecotoxicity:

Do not empty into drains / surface water / ground water.

Mobility:

Cured adhesives are immobile.

Persistence and Biodegradability:

No data available for the product.

Bioaccumulative potential:

No data available for the product.

12.1. Toxicity

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Tetrahydrofurfuryl methacrylate 2455-24-5	LC50	34,7 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
Hydroxypropyl methacrylate 27813-02-1	LC50	493 mg/l	Fish	48 h	Leuciscus idus melanotus	
Cumene hydroperoxide 80-15-9	LC50	3,9 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Cumene hydroperoxide 80-15-9	EC50	18 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Cumene hydroperoxide 80-15-9	ErC50	3,1 mg/l	Algae	72 h	Pseudokirchnerella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Cumene 98-82-8	LC50	4,8 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Cumene 98-82-8	EC50	4 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Cumene 98-82-8	EC50	2,6 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)

12.2. Persistence and degradability

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
Tetrahydrofurfuryl methacrylate 2455-24-5		aerobic	75 %	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Hydroxypropyl methacrylate 27813-02-1	readily biodegradable	aerobic	94,2 %	OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)
Cumene hydroperoxide 80-15-9			18 %	OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)
Cumene 98-82-8		aerobic	86 %	

12.3. Bioaccumulative potential / 12.4. Mobility in soil

Hazardous components CAS-No.	LogKow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
Tetrahydrofurfuryl methacrylate 2455-24-5	1,8					
Hydroxypropyl methacrylate 27813-02-1	0,97					
Cumene hydroperoxide 80-15-9		9,1		calculation		OECD Guideline 305 (Bioconcentration: Flow- through Fish Test)
Cumene hydroperoxide 80-15-9	2,16					
Cumene 98-82-8		35,5		Carassius auratus		OECD Guideline 305 (Bioconcentration: Flow- through Fish Test)
Cumene 98-82-8	3,55				23 °C	OECD Guideline 107 (Partition Coefficient (n- octanol / water), Shake Flask Method)

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

Dispose of in accordance with local and national regulations.

Contribution of this product to waste is very insignificant in comparison to article in which it is used

Disposal of uncleaned packages:

After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated.

Disposal must be made according to official regulations.

Waste code

08 04 09 waste adhesives and sealants containing organic solvents and other dangerous substances

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

SECTION 14: Transport information

General information:

Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

VOC content	< 3 %
(1999/13/EC)	

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:

- R10 Flammable.
- R21/22 Harmful in contact with skin and if swallowed.
- R23 Toxic by inhalation.
- R34 Causes burns.
- R36 Irritating to eyes.
- R36/37/38 Irritating to eyes, respiratory system and skin.
- R37 Irritating to respiratory system.
- R43 May cause sensitisation by skin contact.
- R48/20/22 Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.
- R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R65 Harmful: may cause lung damage if swallowed.
- R7 May cause fire.
- H226 Flammable liquid and vapour.
- H242 Heating may cause a fire.
- H302 Harmful if swallowed.
- H304 May be fatal if swallowed and enters airways.
- 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.
- H319 Causes serious eye irritation.
- H331 Toxic if inhaled.
- H335 May cause respiratory irritation.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H411 Toxic to aquatic life with long lasting effects.

Further information:

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

This safety data sheet was prepared in accordance with Council Directive 67/548/EEC and its subsequent amendments, and Commission Directive 1999/45/EC.