



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

Page 1 of 10

Loctite(R) 352 Light Cure Adhesive UV/Heat/ Activator Cure

sds no. : 153517  
V003.2

Revision: 26.05.2011  
printing date: 18.04.2012

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

**Product identifier:**

Loctite(R) 352 Light Cure Adhesive UV/Heat/ Activator Cure

**Relevant identified uses of the substance or mixture and uses advised against:**

Intended use:  
Ultraviolet adhesive

**Details of the supplier of the safety data sheet:**

Henkel Ireland Limited  
Product Safety & Regulatory Affairs  
Tallaght Business Park, Whitestown  
Dublin 24

Ireland

Phone: +353 (14046444)  
Fax-no.: +353 (14519926)

ua-productsafety.uk@uk.henkel.com

**Emergency telephone number:**

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

### SECTION 2: Hazards identification

**Classification of the substance or mixture:**

**Classification (DPD):**

Sensitizing  
R43 May cause sensitisation by skin contact.  
Xi - Irritant  
R36/37/38 Irritating to eyes, respiratory system and skin.  
N - Dangerous for the environment  
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Label elements (DPD):**

Xi - Irritant



N - Dangerous for the environment

**Risk phrases:**

R36/37/38 Irritating to eyes, respiratory system and skin.

R43 May cause sensitisation by skin contact.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Safety phrases:**

S24 Avoid contact with skin.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S37 Wear suitable gloves.

S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

**Contains:**

2-Hydroxyethyl methacrylate

**Other hazards:**

None if used properly.

**SECTION 3: Composition/information on ingredients****General chemical description:**

UV curing acrylic adhesive

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

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
2-Hydroxyethyl methacrylate 868-77-9	212-782-2	20- 30 %	Serious eye irritation 2 H319 Skin irritation 2 H315 Skin sensitizer 1 H317
Isobornyl methacrylate 7534-94-3	231-403-1	5- 15 %	Serious eye irritation 2 H319 Skin irritation 2 H315 Specific target organ toxicity - single exposure 3 H335
Acrylic acid 79-10-7	201-177-9	1- 5 %	Acute toxicity 4; Oral H302 Skin corrosion 1A H314 Flammable liquids 3 H226 Acute toxicity 4; Dermal H312 Acute hazards to the aquatic environment 1 H400 Acute toxicity 4; Inhalation H332

Only dangerous ingredients for which a CLP classification is already available are displayed in this table.  
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
2-Hydroxyethyl methacrylate 868-77-9	212-782-2	20 - 30 %	Xi - Irritant; R36/38 R43
Isobornyl methacrylate 7534-94-3	231-403-1	5 - 15 %	N - Dangerous for the environment; R51/53 Xi - Irritant; R36/37/38
Acrylic acid 79-10-7	201-177-9	1 - 5 %	Xn - Harmful; R20/21/22 R10 C - Corrosive; R35 N - Dangerous for the environment; R50
Ethanone, 2,2-dimethoxy-1,2-diphenyl- 24650-42-8	246-386-6	1 - 5 %	N - Dangerous for the environment; R50/53
Tert-butyl perbenzoate 614-45-9	210-382-2	1 - 5 %	E - Explosive; R2 O - Oxidizing; R7 Xi - Irritant; R38, R43 Xn - Harmful; R20 N - Dangerous for the environment; R50

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

##### Description of first aid measures:

###### Inhalation:

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

Consideration should be given to the possible effects of a faulty UV source (Stray radiation, ozone).

###### 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.

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

SKIN: Rash, Urticaria.

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

See section: Description of first aid measures

#### SECTION 5: Firefighting measures

##### Combustion behaviour:

Non flammable product (flash point is greater than 100°C (CC))

##### Extinguishing media:

##### Suitable extinguishing media:

Carbon dioxide, foam, powder

##### Extinguishing media which must not be used for safety reasons:

None known

**Special hazards arising from the substance or mixture:**

None  
carbon oxides.

**Advice for firefighters:**

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

## SECTION 6: Accidental release measures

**Personal precautions, protective equipment and emergency procedures:**

Avoid skin and eye contact.  
See advice in chapter 8

**Environmental precautions:**

Do not let product enter drains.

**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.  
Dispose of contaminated material as waste according to Chapter 13.

## SECTION 7: Handling and storage

**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.

**Conditions for safe storage, including any incompatibilities:**

Store in original containers at 8-21°C (46.4-69.8°F) and do not return residual materials to containers as contamination may reduce the shelf life of the bulk product.  
Keep away from heat and direct sunlight.

**Specific end use(s):**

Ultraviolet adhesive

## SECTION 8: Exposure controls/personal protection

**Control parameters:**

**Exposure controls:**

**Respiratory protection:**

Use only in well-ventilated areas.

**Hand protection:**

The use of chemical resistant gloves such as Nitrile are recommended.

Please note that in practice the working life of chemical resistant gloves may be considerably reduced as a result of many influencing factors (e.g. temperature). Suitable risk assessment should be carried out by the end user. If signs of wear and tear are noticed then the gloves should be replaced.

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****Information on basic physical and chemical properties:**

Appearance	liquid green
Odor	Mild
pH	Not determined
Initial boiling point	> 150 °C (> 302 °F)
Flash point	> 93,3 °C (> 199.94 °F); Tagliabue closed cup
Decomposition temperature	No data available / Not applicable
Vapour pressure (20 °C (68 °F))	< 4,67 mbar
Density ( )	1,05 g/cm <sup>3</sup>
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)	Miscible
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

**Other information:**

No data available / Not applicable

**SECTION 10: Stability and reactivity****Reactivity:**

Polymerises in the presence of sunlight.  
Peroxides.  
Reducing agents.

**Chemical stability:**

Stable under recommended storage conditions.

**Possibility of hazardous reactions:**

See section reactivity

**Conditions to avoid:**

Stable under normal conditions of storage and use.  
Protect from direct sunlight.

**Incompatible materials:**

No data available.

**Hazardous decomposition products:**

carbon oxides.

**SECTION 11: Toxicological information****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:**

It is irritating and sensitising to the skin

**Eye irritation:**

Irritating to eyes.

**Germ cell mutagenicity:**

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
2-Hydroxyethyl methacrylate 868-77-9	negative positive	bacterial reverse mutation assay (e.g Ames test) in vitro mammalian chromosome aberration test	with and without with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay) OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Acrylic acid 79-10-7	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		

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

Toxic to aquatic organisms

May cause long-term adverse effects in the aquatic environment.

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

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.

**Mobility:**

Cured adhesives are immobile.

**Toxicity:**

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
2-Hydroxyethyl methacrylate 868-77-9	LC50	227 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
2-Hydroxyethyl methacrylate 868-77-9	EC50	380 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
2-Hydroxyethyl methacrylate 868-77-9	EC50	345 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Isobornyl methacrylate 7534-94-3	LC50	1,79 mg/l	Fish	96 h		OECD Guideline 203 (Fish, Acute Toxicity Test)
Isobornyl methacrylate 7534-94-3	EC50	1,1 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Acrylic acid 79-10-7	LC50	27 mg/l	Fish	96 h	Salmo gairdneri (new name: Oncorhynchus mykiss)	OECD Guideline 203 (Fish, Acute Toxicity Test)
Acrylic acid 79-10-7	EC50	47 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Acrylic acid 79-10-7	EC50	0,04 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Ethanone, 2,2-dimethoxy-1,2- diphenyl- 24650-42-8	LC50	7,2 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Ethanone, 2,2-dimethoxy-1,2- diphenyl- 24650-42-8	EC50	26 mg/l	Daphnia	24 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Ethanone, 2,2-dimethoxy-1,2- diphenyl- 24650-42-8	EC50	0,17 mg/l	Algae	72 h	Scenedesmus sp.	OECD Guideline 201 (Alga, Growth Inhibition Test)
Tert-butyl perbenzoate 614-45-9	LC50	1,6 mg/l	Fish	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)
Tert-butyl perbenzoate 614-45-9	EC50	11 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Tert-butyl perbenzoate 614-45-9	EC50	0,8 mg/l	Algae	72 h	Pseudokirchnerella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)

**Persistence and degradability:**

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
2-Hydroxyethyl methacrylate 868-77-9	readily biodegradable	aerobic	98 %	OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)
Isobornyl methacrylate 7534-94-3			26,8 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Acrylic acid 79-10-7	readily biodegradable	aerobic	81 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Tert-butyl perbenzoate 614-45-9	readily biodegradable, but failing 10-day window	aerobic	72 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)

**Bioaccumulative potential / Mobility in soil:**

Hazardous components CAS-No.	LogKow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
Acrylic acid 79-10-7	0,46				25 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Ethanone, 2,2-dimethoxy-1,2-diphenyl- 24650-42-8	3,42					

**SECTION 13: Disposal considerations****Waste treatment methods:****Product disposal:**

Dispose of in accordance with local and national regulations.

**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

**SECTION 14: Transport information****Road transport ADR:**

Class:	9
Packaging group:	III
Classification code:	M6
Hazard ident. number:	90
UN no.:	3082
Label:	9
Technical name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,2-Dimethoxy-1,2-diphenylethan-1-one, Isobornyl acrylate)
Tunnelcode:	(E)



**Railroad transport RID:**

Class: 9  
Packaging group: III  
Classification code: M6  
Hazard ident. number: 90  
UN no.: 3082  
Label: 9  
Technical name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,  
N.O.S. (2,2-Dimethoxy-1,2-diphenylethan-1-one,Isobornyl acrylate)  
Tunnelcode:

**Inland water transport ADN:**

Class: 9  
Packaging group: III  
Classification code: M6  
Hazard ident. number: 90  
UN no.: 3082  
Label: 9  
Technical name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,  
N.O.S. (2,2-Dimethoxy-1,2-diphenylethan-1-one,Isobornyl acrylate)

**Marine transport IMDG:**

Class: 9  
Packaging group: III  
UN no.: 3082  
Label: 9  
EmS: F-A ,S-F  
Seawater pollutant: Marine pollutant  
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,  
N.O.S. (2,2-Dimethoxy-1,2-diphenylethan-1-one,Isobornyl acrylate)

**Air transport IATA:**

Class: 9  
Packaging group: III  
Packaging instructions (passenger) 964  
Packaging instructions (cargo) 964  
UN no.: 3082  
Label: 9  
Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (2,2-Dimethoxy-  
1,2-diphenylethan-1-one,Isobornyl acrylate)

**SECTION 15: Regulatory information****Safety, health and environmental regulations/legislation specific for the substance or mixture:**

VOC content < 3,00 %  
(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.
- R2 Risk of explosion by shock, friction, fire or other sources of ignition.
- R20 Harmful by inhalation.
- R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
- R35 Causes severe burns.
- R36/37/38 Irritating to eyes, respiratory system and skin.
- R36/38 Irritating to eyes and skin.
- R38 Irritating to skin.
- R43 May cause sensitisation by skin contact.
- R50 Very toxic to aquatic organisms.
- R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R7 May cause fire.
  
- 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.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H400 Very toxic to aquatic life.

### 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.