



PIGAL s.r.l.

Revision nr. 10

Dated 23/5/2016

SIGILLANTE VERDE PIANI

Printed on 01/08/2016

Page n. 1/11

Safety data sheet

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

1.1. Product identifier

Code: C00077-05223
Product name: SIGILLANTE VERDE PIANI (Green))

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

Intended use: Anaerobic sealant acrylic-based, for the engineering industry

1.3. Details of the supplier of the safety data sheet

Name: PIGAL s.r.l.
Full address: Via G. Rossa, 2
District and Country: 40053 VALSAMOGGIA - Crespellano (BO)
ITALIA
Tel. +39 051969068
Fax +39 051969353

e-mail address of the competent person

responsible for the Safety Data Sheet: health.safety@pigal.it; pigalab@pigal.it

1.4. Emergency telephone number

For urgent inquiries refer to: +39 051969068 ore ufficio/office hours (8.30-13; 14-17.30)
118 (contattare il centro antiveneni più vicino)/please contact your near local poison control center

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

Eye Irrit. 2	H319
Skin Irrit. 2	H315
STOT SE 3	H335
Skin Sens. 1	H317

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

SIGILLANTE VERDE PIANI

Signal words: Warning

Hazard statements:

H319 Causes serious eye irritation.
H315 Causes skin irritation.
H335 May cause respiratory irritation.
H317 May cause an allergic skin reaction.

Precautionary statements:

P102 Keep out of reach of children.
P261 Avoid breathing vapours .
P280 Wear protective gloves / face protection.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Call a POISON CENTER or doctor / physician if you feel unwell.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.

Contains: 2-Hydroxyethyl methacrylate
Hydroxypropylmethacrylate

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.**3.1. Substances.**

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %.	Classification 1272/2008 (CLP).
Hydroxypropylmethacrylate		
CAS. 27813-02-1	20 - 40	Eye Irrit. 2 H319, Skin Sens. 1 H317
EC. 248-666-3		
INDEX. 607-125-00-5		
2-Hydroxyethyl methacrylate		
CAS. 868-77-9	5 - 10	Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317, Note D
EC. 212-782-2		



PIGAL s.r.l.

Revision nr. 10

Dated 23/5/2016

SIGILLANTE VERDE PIANI

Printed on 01/08/2016

Page n. 3/11

INDEX. 607-124-00-X

Cumene hydroperoxide

CAS. 80-15-9

< 1

Org. Perox EF H242, Acute Tox. 3 H331, Acute Tox. 4 H302, Acute Tox. 4 H312, STOT RE 2 H373, Skin Corr. 1B H314, Aquatic Chronic 2 H411

EC. 201-254-7

INDEX. 617-002-00-8

Reg. no. 01-2119475796-19

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

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

For symptoms and effects caused by the contained substances, see chap. 11.

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

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.



PIGAL s.r.l.

Revision nr. 10

Dated 23/5/2016

SIGILLANTE VERDE PIANI

Printed on 01/08/2016

Page n. 4/11

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed. Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.



PIGAL s.r.l.

Revision nr. 10

Dated 23/5/2016

SIGILLANTE VERDE PIANI

Printed on 01/08/2016

Page n. 5/11

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

Specific indications for gloves: nitrile rubber (EN 754 compliant), minimum 0.7 mm thick .

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	liquid
Colour	various
Odour	characteristic
Odour threshold.	Not available.
pH.	Not available.
Melting point / freezing point.	Not available.
Initial boiling point.	Not available.
Boiling range.	Not available.
Flash point.	> 60 °C.
Evaporation Rate	Not available.
Flammability of solids and gases	Not available.
Lower inflammability limit.	Not available.
Upper inflammability limit.	Not available.
Lower explosive limit.	Not available.
Upper explosive limit.	Not available.
Vapour pressure.	<10 mmHg
Vapour density	Not available.



PIGAL s.r.l.

Revision nr. 10

Dated 23/5/2016

SIGILLANTE VERDE PIANI

Printed on 01/08/2016

Page n. 6/11

Relative density.	1,02 - 1,06
Solubility	insoluble in water
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	15 ÷ 300000 mPa.s (20 rpm a 20°C)
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.

VOC (Directive 1999/13/EC) :	2,90 %
VOC (volatile carbon) :	0
Can pressure:	N.A.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

Information not available.

10.2. Chemical stability.

The product is stable if stored in original containers at temperatures lower than the self accelerated decomposition temperature (SADT).

10.3. Possibility of hazardous reactions.

It reacts with strong acids and strong oxidizing agents.

10.4. Conditions to avoid.

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition. Avoid transferring into containers that may have been contaminated with other substances. Avoid storing close to inflammable or combustible products.

Protect from heat.

10.5. Incompatible materials.

Strong reducing or oxidising agents, strong acids or alkalis, hot material.

Oxidising agents, strong reducing agents, acids.

10.6. Hazardous decomposition products.

Thermal decomposition can lead to the formation of explosive peroxides or other potentially hazardous substances.

Heating or in case of fire, toxic fumes. In case of fire: sulfur oxides, nitrogen oxides (NOx), CO₂ and CO.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Vapour inhalation may slightly irritate the upper respiratory tract. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.

Acute effects: vapour inhalation may irritate the lower and upper respiratory tract and cause cough and respiratory disorders. At higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

Cumene hydroperoxide - Skin contact: corrosive (Rabbit).

2-Hydroxyethyl methacrylate- Contact with skin: irritating (Rabbit / 24h).

Cumene hydroperoxide

LD50 (Oral). 382 mg/Kg Rat

LD50 (Dermal). 500 mg/Kg Rat

LC50 (Inhalation). 220 ppm Rat

2-Hydroxyethyl methacrylate

LD50 (Oral). 5564 mg/kg Rat

LD50 (Dermal). > 3000 mg/kg Rabbit

Hydroxypropylmethacrylate

LD50 (Oral). > 5000 mg/kg Rat

LD50 (Dermal). > 5000 mg/kg Rabbit

SECTION 12. Ecological information.

12.1. Toxicity.

2-Hydroxyethyl methacrylate - fish toxicity (continuous flow) = 227 mg / l / 96 h - Pimephales promelas.

Hydroxypropyl methacrylate - Toxicity to fish flow-through test = 493 mg / l / 48 h - Leuciscus Idus

Bacterial toxicity EC 10 = 1.140 mg / l / 16 h - Pseudomonas putida.

Cumene hydroperoxide

LC50 - for Fish.

3,9 mg/l/96h Oncorhynchus mykiss

12.2. Persistence and degradability.

2-Hydroxyethyl methacrylate - Biodegradation = 84% - Readily biodegradable. Method: Closed Bottle.

Hydroxypropylmethacrylate - Biodegradation 94% - Readily biodegradable. Method: Closed Bottle.

Cumene hydroperoxide

Rapidly biodegradable.

2-Hydroxyethyl methacrylate

Rapidly biodegradable.



PIGAL s.r.l.

Revision nr. 10

Dated 23/5/2016

SIGILLANTE VERDE PIANI

Printed on 01/08/2016

Page n. 8/11

Hydroxypropylmethacrylate

Rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

The valid EEC waste code are largely source-related; the manufacturer is, therefore, unable to specify waste codes for products used in various sectors.

Small quantities of cured product can be treated as industrial waste similar to MSW.

CER-code (suggested): 08 04 09.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.

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

Seveso category.

None.


Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point.

3

Substances in Candidate List (Art. 59 REACH).

	PIGAL s.r.l.	Revision nr. 10 Dated 23/5/2016 Printed on 01/08/2016 Page n. 9/11
	SIGILLANTE VERDE PIANI	

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

It does not contain substances listed in the RoHS and WEEE.

15.2. Chemical safety assessment.

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Org. Perox EF	Organic peroxide, category EF
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1B	Skin corrosion, category 1B
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
H242	Heating may cause a fire.
H331	Toxic if inhaled.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H373	May cause damage to organs through prolonged or repeated exposure.



PIGAL s.r.l.

Revision nr. 10

Dated 23/5/2016

SIGILLANTE VERDE PIANI

Printed on 01/08/2016

Page n. 10/11

H314	Causes severe skin burns and eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
 2. Regulation (EU) 1272/2008 (CLP) of the European Parliament
 3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
 4. Regulation (EU) 2015/830 of the European Parliament
 5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
 6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
 7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
 8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
 9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
- The Merck Index. - 10th Edition
 - Handling Chemical Safety
 - INRS - Fiche Toxicologique (toxicological sheet)
 - Patty - Industrial Hygiene and Toxicology
 - N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
 - ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety



PIGAL s.r.l.

Revision nr. 10

Dated 23/5/2016

SIGILLANTE VERDE PIANI

Printed on 01/08/2016

Page n. 11/11

laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
01 / 02 / 11 / 16.