

Crystal clear toughened adhesive for bonding a variety of plastics and metal substrates

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

1.1. Product identifier

Chem-Set 607 Methacrylate Adhesive Component A

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

Use of the substance/mixture

Adhesives, sealants

Uses advised against

any non-intended use.

1.3. Details of the supplier of the safety data sheet

Company name: Chemical Concepts, Inc
Place: 410 Pike Road, Huntingdon Valley PA. 19006
Telephone: 800.220.1966
Internet: <http://www.chemical-concepts.com/>
Responsible Department: sales@chemical-conce.com

1.4. Emergency telephone number: INFOTRAC: 1.800.535.5053

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC

Indications of danger: F - Highly flammable, C - Corrosive, Xi - Irritant
R phrases:
Highly flammable.
Causes burns.
Irritating to respiratory system.
May cause sensitisation by skin contact.

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Hazard categories:
Flammable liquid: Flam. Liq. 2
Skin corrosion/irritation: Skin Corr. 1A
Serious eye damage/eye irritation: Eye Dam. 1
Respiratory/skin sensitization: Skin Sens. 1
Specific target organ toxicity - single exposure: STOT SE 3
Hazard Statements:
Highly flammable liquid and vapour.
Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
May cause respiratory irritation.

2.2. Label elements

Hazardous components which must be listed on the label

methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate; methyl methacrylate
2-methylpropenoic acid, methacrylic acid

Signal word: Danger

Pictograms: GHS02-GHS05-GHS07



Hazard statements

H225	Highly flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/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.
P501	Dispose of contents/container to in accordance with official regulations.

2.3. Other hazards

In use, may form flammable/explosive vapour-air mixture.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
REACH No		
201-297-1	methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate; methyl methacrylate	45 - 65 %
80-62-6	F - Highly flammable, Xi - Irritant R11-37/38-43	
607-035-00-6	Flam. Liq. 2, STOT SE 3, Skin Irrit. 2, Skin Sens. 1; H225 H335 H315 H317	
201-204-4	2-methylpropenoic acid, methacrylic acid	3 - 5 %
79-41-4	C - Corrosive, Xn - Harmful R21/22-35	
607-088-00-5	Acute Tox. 4, Acute Tox. 4, Skin Corr. 1A; H302 H312 H314	

Full text of R-, H- and EUH-phrases: see section 16.

Further Information

Product does not contain listed SVHC substances.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In case of accident or if you feel unwell, seek medical advice immediately (show safety data sheet if possible).

After inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. In case of irregular

breathing or respiratory arrest provide artificial respiration. In case of irritation of the respiratory tract seek medical advice.

In the case of lung irritation: Primary treatment using corticoide spray, eg. Auxilison spray, Pulmicort-dosage-spray. (Auxilison and Pulmicort are registered trademarks).

After contact with skin

Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. Immediately get medical attention.

After contact with eyes

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an ophthalmologist.

After ingestion

Do not induce vomiting. Rinse mouth thoroughly with water. Let water be swallowed in little sips (dilution effect). Never give anything by mouth to an unconscious person or a person with cramps. Immediately get medical attention.

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

No information available.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Dry extinguishing powder. Foam. Water spray. Carbon dioxide (CO₂).

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Can be released in case of fire: Carbon monoxide. Carbon dioxide (CO₂).

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical resistant suit. In case of fire and/or explosion do not breathe fumes.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Use water spray/stream to protect personnel and to cool endangered containers.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Guide people to safety. Remove all sources of ignition. Provide adequate ventilation.

Do not breathe gas/vapour/spray. Avoid contact with skin, eye and clothing.

Wear personal protection equipment. (refer to chapter 8)

6.2. Environmental precautions

Do not empty into drains or the aquatic environment. Prevent spreading over great surfaces (e.g. by damming or installing oil booms). In case of gas being released or leakage into waters, ground or the drainage system, the appropriate authorities must be informed.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Ventilate affected area.

Treat the assimilated material according to the section on waste disposal.

Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

refer to chapter 8.

refer to chapter 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Provide adequate ventilation.
Wear suitable protective clothing. (Refer to chapter 8.)

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge. In use, may form flammable/explosive vapour-air mixture. It is possible that in the head space of sealed containers, especially in the case of thermal development, vapours of solvent cleaners may accumulate. Flames and sources of ignition must be kept well away. Heating causes rise in pressure with risk of bursting.

Further information on handling

Do not breathe gas/vapour/spray. Avoid contact with skin, eye and clothing.
General protection and hygiene measures: refer to chapter 8

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place. Keep container dry.
Ensure adequate ventilation of the storage area.
Make sure spills can be contained (e.g. sump pallets or kerbed areas).

Advice on storage compatibility

Do not store together with: Gas. Explosives. Flammable solids. Pyrophoric liquids and solids. Self-heating substances and mixtures. Substances or mixtures which, in contact with water emit flammable gases. Oxidizing liquids. Oxidizing solids. ammonium nitrate. Self-reactive substances and mixtures. Organic peroxides. Non-combustible toxic substances. Radioactive substances. Infectious substances.

Further information on storage conditions

Protect against: Light. UV-radiation/sunlight. heat. cooling. moisture.

7.3. Specific end use(s)

refer to chapter 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
79-41-4	Methacrylic acid	20	72		TWA (8 h)	WEL
		40	143		STEL (15 min)	WEL
80-62-6	Methyl methacrylate	50	208		TWA (8 h)	WEL
		100	416		STEL (15 min)	WEL

8.2. Exposure controls



Appropriate engineering controls

In case of open handling, use devices with built-in suction where possible. If suction of the immediate vicinity is impossible or insufficient, adequate airing of the working place must be ensured.

Protective and hygiene measures

Always close containers tightly after the removal of product. Do not eat, drink, smoke or sneeze at the workplace. Wash hands before breaks and at the end of work. Remove contaminated clothing immediately and dispose off safely. Wash contaminated clothing prior to re-use. Used working clothes should not be used outside the work area. Street clothing should be stored separately from work clothing. Protect skin by using skin protective cream.

Eye/face protection

Suitable eye protection: Tightly sealed safety glasses. DIN EN 166

Hand protection

Pull-over gloves of rubber. DIN EN 374

Suitable material:

(Breakthrough time \geq 480 min, penetration time (maximum wearing period): 160 min)

CR (polychloroprenes, Chloroprene rubber). (0,5 mm)

FKM (fluororubber). (0,4 mm)

Butyl rubber. (0,5 mm)

Before using check leak tightness / impermeability. In case of reutilization, clean gloves before taking off and store in well-aired place.

In the cases of special applications, it is recommended to check the chemical resistance with the manufacturer of the gloves.

Skin protection

Suitable protection of the body: Protective clothing.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

Respiratory protection required in case of:

insufficient ventilation.

exceeding critical value

Generation/formation of aerosols

Generation/formation of mist

Suitable respiratory protective equipment: Combination filter device (DIN EN 141).. Type : A / P2/P3

The filter class must be suitable for the maximum contaminant concentration

(gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, closed-circuit breathing apparatus must be used!

Environmental exposure controls

Do not empty into drains or the aquatic environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	viscous
Colour:	-
Odour:	characteristic

Test method

pH-Value:	not determined
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Changes in the physical state

Melting point:	not determined
Initial boiling point and boiling range:	Methyl-methacrylate: 100 °C
Flash point:	Methyl-methacrylate: 10 °C

Explosive properties

none/none

Lower explosion limits:

not determined

Upper explosion limits:

not determined

Oxidizing properties

none/none

Vapour pressure:

not determined

Density:

not determined

Viscosity / dynamic:

not determined

9.2. Other information

No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Hazardous polymerization: Protect from direct sunlight. Can polymerise exothermically if heated, exposed to air, sunlight or by addition of free radical initiators.

10.2. Chemical stability

Stable under normal storage and handling conditions.

10.3. Possibility of hazardous reactions

No information available.

10.4. Conditions to avoid

Protect against: Light. UV-radiation/sunlight. heat. cooling. moisture.
In use may form flammable/explosive vapour-air mixture.

10.5. Incompatible materials

Materials to avoid: Strong acid. Oxidizing agents, strong. Alkalis (alkalis), concentrated.

10.6. Hazardous decomposition products

Can be released in case of fire: Carbon monoxide. Carbon dioxide (CO₂). Nitrogen oxides (NO_x).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicokinetics, metabolism and distribution

No information available.

Acute toxicity

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

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
80-62-6	methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate; methyl methacrylate				
	dermal	LD50	> 5000 mg/kg	Rabbit.	ECHA Dossier
	inhalative aerosol	LC50	29,8 mg/l	Rat.	ECHA Dossier
79-41-4	2-methylpropenoic acid, methacrylic acid				
	oral	LD50	1600 mg/kg	Rat.	MSDS extern.
	dermal	ATE	1100 mg/kg		

Irritation and corrosivity

Causes severe skin burns and eye damage.

Sensitising effects

May cause an allergic skin reaction. (methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate; methyl methacrylate)

Product is: sensitizing.

People who suffer from skins problems, asthma, allergies, chronic or recurring respiratory illnesses must not be deployed in processes, which use this substance.

STOT-single exposure

May cause respiratory irritation. (methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate; methyl methacrylate)

Severe effects after repeated or prolonged exposure

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

methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate; methyl methacrylate (CAS-No.: 80-62-6):

Chronic oral toxicity (Rat., 104 weeks): NOAEL = >2000 mg/kg(bw)/day

Chronic inhalative toxicity (Rat., OECD 453, 104 weeks): NOEL = 500 ppm

literature information: ECHA Dossier

Carcinogenic/mutagenic/toxic effects for reproduction

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

methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate; methyl methacrylate (CAS-No.: 80-62-6):

Carcinogenicity: NOAEC = >2,05 mg/l (Rat. OECD 451, 102 weeks)

Reproductive toxicity: NOAEL = 400 mg/kg(bw)/day (Rat. OECD 416)

Developmental toxicity/teratogenicity: NOAEC = >8,3 mg/l (Rat. OECD 414)

literature information: ECHA Dossier

Aspiration hazard

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

Specific effects in experiment on an animal

No information available.

SECTION 12: Ecological information

12.1. Toxicity

CAS No	Chemical name	Method	Dose	[h] [d]	Species	Source
80-62-6	methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate; methyl methacrylate					
	Acute fish toxicity	LC50	79 mg/l	96 h	Oncorhynchus mykiss	ECHA Dossier
	Acute algae toxicity	ErC50	>110 mg/l	72 h	Pseudokirchnerella subcapitata	ECHA Dossier
	Acute crustacea toxicity	EC50	69 mg/l	48 h	Daphnia magna	ECHA Dossier

12.2. Persistence and degradability

CAS No	Chemical name	Method	Value	d	Source
	Evaluation				
80-62-6	methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate; methyl methacrylate				
	OECD 301C / ISO 9408 / EWG 92/69 Anhang V, C.4-F		94%	14	ECHA Dossier
	Easily biodegradable (concerning to the criteria of the OECD)				

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
80-62-6	methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate; methyl methacrylate	1,32

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

12.6. Other adverse effects

No data available

Further information

Do not empty into drains or the aquatic environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Waste disposal according to official state regulations. Consult the local waste disposal expert about waste disposal. Cleaned containers may be recycled.

Control report for waste code/ waste marking according to EAKV:

Waste disposal number of waste from residues/unused products

080409 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other dangerous substances
Classified as hazardous waste.

Waste disposal number of used product

080409 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other dangerous substances
Classified as hazardous waste.

Waste disposal number of contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by dangerous substances
Classified as hazardous waste.

Contaminated packaging

Handle contaminated packaging in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number:

UN 2924

14.2. UN proper shipping name:

FLAMMABLE LIQUID, CORROSIVE, N.O.S.
(methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate; methyl methacrylate, 2-methylpropenoic acid, methacrylic acid)

14.3. Transport hazard class(es):

3

14.4. Packing group:

II

Hazard label:

3+8



Classification code:

FC

Special Provisions: 274
 Limited quantity: 1 L
 Excepted quantity: E2
 Transport category: 2
 Hazard No: 338
 Tunnel restriction code: D/E

Inland waterways transport (ADN)

14.1. UN number: UN 2924
14.2. UN proper shipping name: FLAMMABLE LIQUID, CORROSIVE, N.O.S.
 (methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate; methyl methacrylate, 2-methylpropenoic acid, methacrylic acid)
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3+8



Classification code: FC
 Special Provisions: 274
 Limited quantity: 1 L
 Excepted quantity: E2

Marine transport (IMDG)

14.1. UN number: UN 2924
14.2. UN proper shipping name: FLAMMABLE LIQUID, CORROSIVE, N.O.S.
 (methyl methacrylate; methacrylic acid)
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3+8



Marine pollutant: NO
 Special Provisions: 274
 Limited quantity: 1 L
 Excepted quantity: E2
 EmS: F-E, S-C

Air transport (ICAO)

14.1. UN number: UN 2924
14.2. UN proper shipping name: FLAMMABLE LIQUID, CORROSIVE, N.O.S.
 (methyl methacrylate; methacrylic acid)
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3+8



Special Provisions: A3

Limited quantity Passenger:	0.5 L
Passenger LQ:	Y340
Excepted quantity:	E2
IATA-packing instructions - Passenger:	352
IATA-max. quantity - Passenger:	1 L
IATA-packing instructions - Cargo:	363
IATA-max. quantity - Cargo:	5 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

refer to chapter 6-8

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

irrelevant

SECTION 15: Regulatory information

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

EU regulatory information

Additional information

The preparation is dangerous in the sense of Directive 1999/45/EC.

This preparation is hazardous in the sense of regulation (EC) No 1272/2008 [GHS].

Regulation 96/82/EC for danger control following severe accidents with dangerous substances: Appendix I, Part 2, No 7, (Seveso II).

REACH 1907/2006 Appendix XVII, No 3

National regulatory information

Employment restrictions: Observe employment restrictions for young people.

Water contaminating class (D): 1 - slightly water contaminating

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Changes

Rev. 1,00, 19.03.2015, Initial release

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the

International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations

Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

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

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

NOAEL: No observed adverse effect level

Relevant R-phrases (Number and full text)

11	Highly flammable.
21/22	Harmful in contact with skin and if swallowed.
35	Causes severe burns.
37/38	Irritating to respiratory system and skin.
43	May cause sensitisation by skin contact.

Relevant H- and EUH-phrases (Number and full text)

H225	Highly 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.
H335	May cause respiratory irritation.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)

1.1. Product identifier

Chem-Set 607 Methacrylate Adhesive Component B

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

Use of the substance/mixture

Adhesives, sealants

Uses advised against

any non-intended use.

1.3. Details of the supplier of the safety data sheet

Company name: Chemical Concepts, Inc
Place: 410 Pike Road, Huntingdon Valley PA. 19006
Telephone: 800.220.1966
Internet: <http://www.chemical-concepts.com/>
Responsible Department: sales@chemical-concepts.com

1.4. Emergency telephone number:

INFOTRAC: 1.800.535.5053

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC

Indications of danger: Xi - Irritant, N - Dangerous for the environment

R phrases:

Irritating to eyes and skin.

May cause sensitisation by skin contact.

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

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Hazard categories:

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Respiratory/skin sensitization: Skin Sens. 1

Hazardous to the aquatic environment: Aquatic Chronic 2

Hazard Statements:

Causes skin irritation.

May cause an allergic skin reaction.

Causes serious eye irritation.

Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazardous components which must be listed on the label

epoxy resin (number average molecular weight \leq 700), reaction product: bisphenol-A-(epichlorhydrin)

dibenzoyl peroxide; benzoyl peroxide

Signal word: Warning

Pictograms: GHS07-GHS09



Hazard statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P337+P313	If eye irritation persists: Get medical advice/attention.
P501	Dispose of contents/container to in accordance with official regulations.

Special labelling of certain mixtures

EUH205	Contains epoxy constituents. May produce an allergic reaction.
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2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
REACH No		
500-033-5	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)	65 - 90 %
25068-38-6	Xi - Irritant, N - Dangerous for the environment R36/38-43-51-53	
603-074-00-8	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, Aquatic Chronic 2; H315 H319 H317 H411	
202-327-6	dibenzoyl peroxide; benzoyl peroxide	10 - 15 %
94-36-0	E - Explosive, O - Oxidizing, Xi - Irritant R3-7-36-43	
617-008-00-0	Org. Perox. B, Eye Irrit. 2, Skin Sens. 1; H241 H319 H317	

Full text of R-, H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In case of accident or if you feel unwell, seek medical advice immediately (show safety data sheet if possible).

After inhalation

Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration. In case of allergic symptoms especially in the breathing area, seek medical advice immediately.

Apply cortisone spray at early stage.

After contact with skin

Take off immediately all contaminated clothing. Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.

After contact with eyes

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing. If eye irritation persists: Get medical advice/attention.

After ingestion

Rinse mouth immediately and drink large quantities of water. Do not induce vomiting. Never give anything by mouth to an unconscious person or a person with cramps. In all cases of doubt, or when symptoms persist, seek medical advice.

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

No information available.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Dry extinguishing powder. Foam. Water spray. Carbon dioxide (CO₂).

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Can be released in case of fire: Carbon monoxide. Carbon dioxide (CO₂).

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical resistant suit. In case of fire and/or explosion do not breathe fumes.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Use water spray/stream to protect personnel and to cool endangered containers.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Guide people to safety. Remove all sources of ignition. Provide adequate ventilation. Do not breathe gas/vapour/spray. Avoid contact with skin, eye and clothing. Wear personal protection equipment. (refer to chapter 8)

6.2. Environmental precautions

Do not empty into drains or the aquatic environment. Prevent spreading over great surfaces (e.g. by damming or installing oil booms). In case of gas being released or leakage into waters, ground or the drainage system, the appropriate authorities must be informed.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Ventilate affected area. Treat the assimilated material according to the section on waste disposal. Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

refer to chapter 8.
refer to chapter 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Provide adequate ventilation.
Wear suitable protective clothing. (Refer to chapter 8.)

Advice on protection against fire and explosion

Usual measures for fire prevention. Keep away from sources of ignition - No smoking.

Further information on handling

Do not breathe gas/vapour/spray. Avoid contact with skin, eye and clothing.
General protection and hygiene measures: refer to chapter 8

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place. Keep container dry.
Keep away from sources of ignition - No smoking.

Advice on storage compatibility

Do not store together with: Gas.. Explosives. Oxidizing solids. Oxidizing liquids. Radioactive substances.
Infectious substances.

Further information on storage conditions

Protect against: Light. UV-radiation/sunlight. heat. cooling. moisture.

7.3. Specific end use(s)

refer to chapter 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
94-36-0	Dibenzoyl peroxide	-	5		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL

8.2. Exposure controls



Appropriate engineering controls

In case of open handling, use devices with built-in suction where possible. If suction of the immediate vicinity is impossible or insufficient, adequate airing of the working place must be ensured.

Protective and hygiene measures

Always close containers tightly after the removal of product. Do not eat, drink, smoke or sneeze at the workplace. Wash hands before breaks and at the end of work. Remove contaminated clothing immediately and dispose off safely. Wash contaminated clothing prior to re-use. Used working clothes should not be used outside the work area. Street clothing should be stored separately from work clothing. Protect skin by using skin protective cream.

Eye/face protection

Suitable eye protection: Tightly sealed safety glasses. DIN EN 166

Hand protection

Pull-over gloves of rubber. DIN EN 374

Suitable material:

(Breakthrough time \geq 480 min, penetration time (maximum wearing period): 160 min)

CR (polychloroprenes, Chloroprene rubber).

NBR (Nitrile rubber).

Before using check leak tightness / impermeability. In case of reutilization, clean gloves before taking off and store in well-aired place.

In the cases of special applications, it is recommended to check the chemical resistance with the manufacturer of the gloves.

Skin protection

Suitable protection of the body: Protective clothing.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

Respiratory protection required in case of:

insufficient ventilation.

exceeding critical value

Generation/formation of aerosols

Generation/formation of mist

Suitable respiratory protective equipment: Combination filter device (DIN EN 141).. Type : A / P2/P3

The filter class must be suitable for the maximum contaminant concentration

(gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is

exceeded, closed-circuit breathing apparatus must be used!

Environmental exposure controls

Do not empty into drains or the aquatic environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	viscous
Colour:	-
Odour:	characteristic

Test method

pH-Value:	not determined
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Changes in the physical state

Melting point:	not determined
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Initial boiling point and boiling range:	not determined
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Flash point:	not determined
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Explosive properties

not determined

Lower explosion limits:	not determined
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Upper explosion limits:	not determined
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Ignition temperature:	not determined
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Decomposition temperature:	not determined
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Oxidizing properties

not determined

Vapour pressure:	not determined
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Density:	not determined
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Solubility in other solvents

not determined

Viscosity / dynamic:	not determined
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9.2. Other information

No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

Stable under normal storage and handling conditions.

10.3. Possibility of hazardous reactions

dibenzoyl peroxide; benzoyl peroxide:

Explosion risk in contact with: Base. Alcohol. Oxidizing agents. Reducing agents. Strong acid. Amines. . heat.

10.4. Conditions to avoid

Protect against: Light. UV-radiation/sunlight. heat. cooling. moisture.

Keep away from sources of ignition - No smoking.

10.5. Incompatible materials

Materials to avoid: Base. Alcohol. Oxidizing agents. Reducing agents. Strong acid. Amines.

@00006031404.

10.6. Hazardous decomposition products

Can be released in case of fire: Carbon monoxide. Carbon dioxide (CO₂).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicocinetics, metabolism and distribution

No information available.

Acute toxicity

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

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
25068-38-6	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)				
	oral	LD50	>2000 mg/kg	Rat. (OECD 420)	ECHA Dossier
	dermal	LD50	>2000 mg/kg	Rat. (OECD 402)	ECHA Dossier
94-36-0	dibenzoyl peroxide; benzoyl peroxide				
	inhalative (4 h) aerosol	LC50	24,3 mg/l	Rat. (OECD 403)	ECHA Dossier

Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

Sensitising effects

May cause an allergic skin reaction. (epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)), (dibenzoyl peroxide; benzoyl peroxide)

Product is: sensitizing.

People who suffer from skins problems, asthma, allergies, chronic or recurring respiratory illnesses must not be deployed in processes, which use this substance.

STOT-single exposure

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

Severe effects after repeated or prolonged exposure

Based on available data, the classification criteria are not met.
 epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin):
 Subchronic oral toxicity (Rat. OECD 408, 90d) NOAEL = 50 mg/kg/day
 literature information: ECHA Dossier

dibenzoyl peroxide; benzoyl peroxide:
 Subchronic oral toxicity (Rat. 90d, OECD 422): NOAEL = 1000 mg/kg
 literature information: ECHA Dossier

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.
 epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin):
 In-vivo mutagenicity: No experimental indications of mutagenicity in-vivo exist.
 Carcinogenicity: (Rat. OECD 453) NOEL = 1 mg/kg/day
 Reproductive toxicity: (Rat. OECD 416, 238d) NOAEL = 750 mg/kg/day
 Developmental toxicity/teratogenicity: (Rat. OECD 414) NOAEL = 180 mg/kg/day
 literature information: ECHA Dossier

dibenzoyl peroxide; benzoyl peroxide:
 No experimental indications of mutagenicity in-vitro exist.
 Reproductive toxicity: (Rat. 90d, OECD 422): NOAEL = 1000 mg/kg
 literature information: ECHA Dossier

Aspiration hazard

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

SECTION 12: Ecological information

12.1. Toxicity

CAS No	Chemical name	Method	Dose	[h] [d]	Species	Source
25068-38-6	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)					
	Acute fish toxicity	LC50	1,2 mg/l	96 h	Oncorhynchus mykiss	ECHA Dossier
	Acute algae toxicity	ErC50	9,4 mg/l	72 h	Scenedesmus capricornutum	ECHA Dossier
	Acute crustacea toxicity	EC50	1,1-2,8 mg/l	48 h	Daphnia magna (OECD 202)	ECHA Dossier
	Crustacea toxicity	NOEC	0,3 mg/l	21 d	Daphnia magna (OECD 211)	ECHA Dossier

12.2. Persistence and degradability

CAS No	Chemical name	Method	Value	d	Source
	Evaluation				
25068-38-6	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)				
	OECD 301F / ISO 9408 / EEC 92/69 annex V, C.4-D		82%	28	ECHA Dossier
	Product is biodegradable.				
94-36-0	dibenzoyl peroxide; benzoyl peroxide				
	OECD 301D / EEC 92/69 annex V, C.4-E		68%	28	ECHA Dossier
	Easily biodegradable (concerning to the criteria of the OECD)				

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
25068-38-6	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)	>=2,918
94-36-0	dibenzoyl peroxide; benzoyl peroxide	3,2

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

12.6. Other adverse effects

No data available

Further information

Do not empty into drains or the aquatic environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Waste disposal according to official state regulations. Consult the local waste disposal expert about waste disposal. Cleaned containers may be recycled.

Control report for waste code/ waste marking according to EAKV:

Waste disposal number of waste from residues/unused products

080409 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other dangerous substances
Classified as hazardous waste.

Waste disposal number of used product

080409 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other dangerous substances
Classified as hazardous waste.

Waste disposal number of contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by dangerous substances
Classified as hazardous waste.

Contaminated packaging

Handle contaminated packaging in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number:

UN 3082

14.2. UN proper shipping name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin))

14.3. Transport hazard class(es):

9

14.4. Packing group:

III

Hazard label:

9



Classification code:

M6

Special Provisions:

274 335 601

Limited quantity:

5 L

Excepted quantity:

E1

Transport category:

3

Hazard No:

90

Tunnel restriction code:

E

Inland waterways transport (ADN)

14.1. UN number:

UN 3082

14.2. UN proper shipping name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(epoxy resin (number average molecular weight <= 700), reaction product:
bisphenol-A-(epichlorhydrin))

14.3. Transport hazard class(es):

9

14.4. Packing group:

III

Hazard label:

9



Classification code:

M6

Special Provisions:

274 335 601

Limited quantity:

5 L

Excepted quantity:

E1

Marine transport (IMDG)

14.1. UN number:

UN 3082

14.2. UN proper shipping name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(epoxy resin)

14.3. Transport hazard class(es):

9

14.4. Packing group:

III

Hazard label:

9



Marine pollutant:

YES

Special Provisions:

274, 335

Limited quantity:

5 L

Excepted quantity:

E1

EmS:

F-A, S-F

Air transport (ICAO)

14.1. UN number:

UN 3082

14.2. UN proper shipping name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(epoxy resin)

14.3. Transport hazard class(es):

9

14.4. Packing group:

III

Hazard label:

9



Special Provisions: A97 A158
Limited quantity Passenger: 30 kg G
Passenger LQ: Y964
Excepted quantity: E1
IATA-packing instructions - Passenger: 964
IATA-max. quantity - Passenger: 450 L
IATA-packing instructions - Cargo: 964
IATA-max. quantity - Cargo: 450 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: yes



Danger releasing substance: epoxy resin (number average molecular weight ≤ 700), reaction product: bisphenol-A-(epichlorhydrin)

14.6. Special precautions for user

refer to chapter 6-8

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

irrelevant

SECTION 15: Regulatory information

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

EU regulatory information

Additional information

The preparation is dangerous in the sense of Directive 1999/45/EC.
This preparation is hazardous in the sense of regulation (EC) No 1272/2008 [GHS].
Regulation 96/82/EC for danger control following severe accidents with dangerous substances: Appendix I, Part 2, No 9ii, (Seveso II).
REACH 1907/2006 Appendix XVII, No 3

National regulatory information

Employment restrictions: Observe employment restrictions for young people.
Water contaminating class (D): 2 - water contaminating

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Changes

Rev. 1,00, 19.03.2015, Initial release

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
NOAEL: No observed adverse effect level

Relevant R-phrases (Number and full text)

- | | |
|-------|--|
| 03 | Extreme risk of explosion by shock, friction, fire or other sources of ignition. |
| 07 | May cause fire. |
| 36 | Irritating to eyes. |
| 36/38 | Irritating to eyes and skin. |
| 43 | May cause sensitisation by skin contact. |
| 51 | Toxic to aquatic organisms. |
| 53 | May cause long-term adverse effects in the aquatic environment. |

Relevant H- and EUH-phrases (Number and full text)

- | | |
|--------|--|
| H241 | Heating may cause a fire or explosion. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH205 | Contains epoxy constituents. May produce an allergic reaction. |

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)