

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

1.1. Product identifier

Product name : Masters[®] Rear View Mirror Adhesive, MA2

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

Use of the substance/mixture : Rear View Mirror Adhesive

1.3. Details of the supplier of the safety data sheet

Master Chemical
4635 Willow Drive
Medina, MN 55340 - USA
T: 612-478-2360

1.4. Emergency telephone number

Emergency number : 1-800-424-9300; CHEMTREC[®] International Emergency number: 703-527-3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Skin Irrit. 2 H315
Eye Irrit. 2A H319
Skin Sens. 1 H317
Carc. 1B H350
STOT SE 3 H335

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



GHS07

GHS08

Signal word (GHS-US) :

: Danger

Hazard statements (GHS-US) :

: H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation
H350 - May cause cancer

Precautionary statements (GHS-US) :

: P261 - Avoid breathing dust/fume/gas/mist/vapours/spray
P271 - Use only in a well-ventilated area
P280 - Wear protective gloves/protective clothing/eye protection/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
P337+P313 - If eye irritation persists: Get medical advice/attention
P501 - Dispose of contents/container to local, regional, national, and international regulations.

2.3. Other hazards

PBT: This product is not identified as a PBT substance.

SECTION 3: Composition/information on ingredients

3.1. Substance

Full text of H-phrases: see section 16

3.2. Mixture

Hazardous ingredients:

Name	Product identifier	%	GHS-US classification
Aliphatic Urethane Acrylate Resin	Proprietary	30 - 50	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335

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Name	Product identifier	%	GHS-US classification
Ethoxylated bisphenol A dimethacrylate	(CAS No) 41637-38-1	15 - 20	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317 STOT SE 3, H335
hydroxypropyl methacrylate	(CAS No) 27813-02-1	10 - 15	Skin Sens. 1, H317 Carc. 1B, H350
isobornyl acrylate	(CAS No) 5888-33-5	10 - 15	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335 Aquatic Chronic 2, H411
acrylic acid	(CAS No) 79-10-7	1 - 10	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Skin Corr. 1A, H314
1,6-hexanediol diacrylate	(CAS No) 13048-33-4	5 - 10	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317
cumene hydroperoxide	(CAS No) 80-15-9	0.1 - 1	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302 Acute Tox. 2 (Dermal), H310
3-glycidyloxypropyltrimethoxysilane	(CAS No) 2530-83-8	0.1 - 1	Eye Dam. 1, H318 Aquatic Acute 3, H402
saccharin	(CAS No) 81-07-2	0.1 - 1	Skin Corr. 1A, H314
2'-phenylacetohydrazide	(CAS No) 114-83-0	0.1 - 1	Acute Tox. 4 (Oral), H302

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Respiratory problems: consult a doctor/medical service.
- First-aid measures after skin contact : Remove contaminated clothing. Drench affected area with water for at least 15 minutes. If skin irritation or rash occurs: Get medical advice/attention.
- First-aid measures after eye contact : Immediately flush eyes thoroughly with water for at least 15 minutes. Get medical advice/attention.
- First-aid measures after ingestion : Do not induce vomiting. Immediately after ingestion: give lots of water to drink. Get immediate medical attention.

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

- Skin contact : There may be irritation and redness at the site of contact. Prolonged or repeated contact may cause defatting of the skin, which can lead to dermatitis. Skin sensitization is possible
- Eye contact : Strong irritation with danger of severe eye injury. May cause permanent damage. The eyes may water profusely.
- Ingestion : May cause irritation of the digestive tract resulting in nausea, vomiting, diarrhea, thirst, abdominal pain depending on concentration and amount ingested. May also affect the cardiovascular system. Aspiration into the lungs may cause chemical pneumonitis, which can be fatal.
- Inhalation : May cause slight irritation of respiratory tract. There may be coughing and a sore throat.
- Delayed / immediate effects : Immediate effects can be expected after short-term exposure.

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

Immediate / special treatment: Show this safety data sheet to the doctor in attendance.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Alcohol-resistant foam. Dry powder. Carbon dioxide.
- Unsuitable extinguishing media : Do not use water jet to extinguish.

5.2. Special hazards arising from the substance or mixture

- Reactivity : No dangerous reactions known under normal conditions of use.

5.3. Advice for firefighters

- Firefighting instructions : In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.
- Other information : Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Ensure adequate ventilation. Use appropriate personal protection equipment (PPE).

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6.1.1. For non-emergency personnel

- Protective equipment : Use appropriate personal protection equipment (PPE).
Emergency procedures : Keep suitable chemically resistant protective clothing readily available for emergency use.

6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
Emergency procedures : Evacuate unnecessary personnel. Stop release. Ventilate area. Use appropriate personal protection equipment (PPE).

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- For containment : Absorb excess liquid spillage on inorganic adsorbent material such as fine sand, brick dust etc.
Place spent adsorbent in sealed packages and contact specialist waste disposal contractor.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Avoid all eye and skin contact and do not breathe vapour and mist. Use only in a well-ventilated area. Use personal protective equipment as required.
Hygiene measures : Do not eat, drink or smoke in areas where product is used. Handle in accordance with good industrial hygiene and safety practice. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep container tightly closed. Keep container closed when not in use. Store in a cool, dry and well-ventilated place. Must only be kept in original packaging. Keep away from children.
Incompatible products : Oxidizing agent. Strong acids. Strong bases.

7.3. Specific end use(s)

Adhesive - Rear View Mirror Adhesive

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

acrylic acid(79-10-7)		
USA ACGIH	ACGIH TWA (ppm)	2 ppm
USA ACGIH	ACGIH STEL (ppm)	2 ppm

8.2. Exposure controls

- Appropriate engineering controls : Ensure all national/local regulations are observed. Provide adequate general and local exhaust ventilation.
Personal protective equipment : Protective clothing. Protective goggles. Gloves. Self-contained breathing apparatus.
Materials for protective clothing : Wear fire/flammable resistant/retardant clothing.
Hand protection : Wear chemically resistant protective gloves.
Eye protection : Chemical goggles or safety glasses.
Skin and body protection : Protective clothing.
Respiratory protection : Avoid breathing dust, mist or spray. Wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
Appearance : Yellow Liquid.
Colour : Yellow.
Odour : Irritating.
pH : Not applicable.
Boiling point : > 300 °F
Flash point : > 200 °F
Vapour pressure : < 5 mm Hg
Relative density : 1.1

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Explosive limits : No data available

9.2. Other information

VOC content : 5.3 %

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Will not occur under normal transport or storage conditions. Polymerization may occur on exposure to conditions or materials listed below.

10.4. Conditions to avoid

Direct sunlight. Heat. Sources of ignition. Exothermic polymerization can occur if exposed to elevated temperatures for periods of time.

10.5. Incompatible materials

Oxidizing agent. Strong acids. Strong bases. Free-radical initiators. Metals. Aluminum. Copper.

10.6. Hazardous decomposition products

In combustion emits toxic fumes of carbon dioxide / carbon monoxide. In combustion emits toxic fumes of nitrogen oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

hydroxypropyl methacrylate (27813-02-1)	
LD50 oral rat	> 5000 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Literature study; >=2000 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rabbit	>= 5000 mg/kg bodyweight (Rabbit; Experimental value)
isobornyl acrylate (5888-33-5)	
LD50 oral rat	4890 mg/kg (Rat; Literature)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit; Literature)
cumene hydroperoxide (80-15-9)	
LD50 oral rat	382 mg/kg (Rat; Weight of evidence)
LD50 dermal rat	1200-1520,Rat; Weight of evidence
LD50 dermal rabbit	133 mg/kg bodyweight (Rabbit; Weight of evidence)
LC50 inhalation rat (mg/l)	1.37 mg/l/4h (Rat; Weight of evidence)
LC50 inhalation rat (ppm)	220 ppm/4h (Rat; Weight of evidence)
acrylic acid(79-10-7)	
LD50 oral rat	1500 mg/kg (Rat)
LD50 dermal rabbit	640 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	> 5.1 mg/l/4h (Rat)
3-glycidyoxypropyltrimethoxysilane (2530-83-8)	
LD50 oral rat	8025 mg/kg bodyweight (Rat; Equivalent or similar to OECD 401; Experimental value)
LD50 dermal rabbit	4250 mg/kg bodyweight (Rabbit; Experimental value; Equivalent or similar to OECD 402)
Aliphatic Urethane Acrylate Resin	
LD50 oral rat	> 2000 mg/kg (Rat)
1,6-hexanediol diacrylate (13048-33-4)	
LD50 oral rat	> 5000 mg/kg (Rat)
LD50 dermal rabbit	3600 mg/kg (Rabbit)
hydroxypropyl methacrylate (27813-02-1)	
National Toxicity Program (NTP) Status	3 - Reasonably anticipated to be Human Carcinogen
acrylic acid(79-10-7)	
IARC group	3 - Not classifiable
saccharin (81-07-2)	
IARC group	3 - Not classifiable

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SECTION 12: Ecological information

12.1. Toxicity

hydroxypropyl methacrylate (27813-02-1)	
LC50 fishes 1	493 mg/l (48 h; Leuciscus idus; GLP)
EC50 Daphnia 1	> 143 mg/l (48 h; Daphnia magna; GLP)
Threshold limit algae 1	> 97.2 mg/l (72 h; Pseudokirchneriella subcapitata; GLP)
Threshold limit algae 2	> 97.2 mg/l (72 h; Pseudokirchneriella subcapitata; GLP)
cumene hydroperoxide (80-15-9)	
LC50 fishes 1	14 mg/l (48 h; Leuciscus idus; GLP)
EC50 Daphnia 1	7 mg/l (24 h; Daphnia magna; Static system)
LC50 fish 2	3.9 mg/l (96 h; Oncorhynchus mykiss)
EC50 Daphnia 2	18.84 mg/l (48 h; Daphnia magna; GLP)
Threshold limit algae 1	1.2 mg/l (Microcystis aeruginosa)
Threshold limit algae 2	7.4 mg/l (Scenedesmus quadricauda)
acrylic acid (79-10-7)	
LC50 fishes 1	222 mg/l (96 h; Brachydanio rerio)
EC50 Daphnia 1	47 mg/l (48 h; Daphnia magna)
Threshold limit algae 1	< 0.01 mg/l (72 h; Scenedesmus subspicatus)
Threshold limit algae 2	0.06 mg/l (72 h; Scenedesmus subspicatus)
3-glycidyloxypropyltrimethoxysilane (2530-83-8)	
LC50 fishes 1	55 mg/l (96 h; Cyprinus carpio; Young)
EC50 Daphnia 1	473 - 710 mg/l (48 h; Daphnia magna)
LC50 fish 2	237 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
Threshold limit algae 1	119 mg/l (7 days; Anabaena flosaquae)
Threshold limit algae 2	250 mg/l (72 h; Selenastrum capricornutum)

12.2. Persistence and degradability

Masters® Rear View Mirror Adhesive, MA2	
Persistence and degradability	No data available.
hydroxypropyl methacrylate (27813-02-1)	
Persistence and degradability	Readily biodegradable in water. No (test)data on mobility of the substance available.
isobornyl acrylate (5888-33-5)	
Persistence and degradability	No test data available. No (test)data on mobility of the substance available.
cumene hydroperoxide (80-15-9)	
Persistence and degradability	Not readily biodegradable in water. Highly mobile in soil.
acrylic acid (79-10-7)	
Persistence and degradability	Readily biodegradable in water. No (test)data on mobility of the components available.
3-glycidyloxypropyltrimethoxysilane (2530-83-8)	
Persistence and degradability	Not readily biodegradable in water. Hydrolysis in water. No (test)data on mobility of the substance available.
Ethoxylated bisphenol A dimethacrylate (41637-38-1)	
Persistence and degradability	Biodegradability in water: no data available.
saccharin (81-07-2)	
Persistence and degradability	Biodegradability in water: no data available.
2'-phenylacetohydrazide (114-83-0)	
Persistence and degradability	Biodegradability in water: no data available.
Aliphatic Urethane Acrylate Resin	
Persistence and degradability	Biodegradability in water: no data available.
1,6-hexanediol diacrylate (13048-33-4)	
Persistence and degradability	Inherently biodegradable.

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12.3. Bioaccumulative potential

Masters® Rear View Mirror Adhesive, MA2	
Bioaccumulative potential	No bioaccumulation data available.
hydroxypropyl methacrylate (27813-02-1)	
BCF fish 1	<= 100 (Pisces)
BCF fish 2	3.2 (Pisces; QSAR)
Log Pow	0.97 (OECD 102: Melting Point/Melting Range)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
isobornyl acrylate (5888-33-5)	
Log Pow	4.21 (Estimated value)
Bioaccumulative potential	Potential for bioaccumulation ($4 \geq \text{Log Kow} \leq 5$).
cumene hydroperoxide (80-15-9)	
BCF other aquatic organisms 1	9
Log Pow	1.6 (Experimental value; OECD 117: Partition Coefficient (n-octanol/water), HPLC method; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
acrylic acid (79-10-7)	
Log Pow	0.31
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
3-glycidyloxypropyltrimethoxysilane (2530-83-8)	
Log Pow	-0.92 (Estimated value)
Bioaccumulative potential	Not bioaccumulative.
Ethoxylated bisphenol A dimethacrylate (41637-38-1)	
Bioaccumulative potential	No bioaccumulation data available.
saccharin (81-07-2)	
Log Pow	0.91
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
2'-phenylacetohydrazide (114-83-0)	
Bioaccumulative potential	No bioaccumulation data available.
Aliphatic Urethane Acrylate Resin	
Bioaccumulative potential	No bioaccumulation data available.
1,6-hexanediol diacrylate (13048-33-4)	
Bioaccumulative potential	No bioaccumulation data available.

12.4. Mobility in soil

cumene hydroperoxide (80-15-9)	
Surface tension	0.028 N/m (-9 °C)

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	: Remove waste in accordance with local and/or national regulations.
Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Do not reuse container.

SECTION 14: Transport information

In accordance with DOT	
Transport document description	: N/A Unrestricted
UN-No.(DOT)	: None
DOT NA no.	: N/A
Proper Shipping Name (DOT)	: Unrestricted

Additional information

Other information	: This product does not require a classification for transport.
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SECTION 15: Regulatory information

15.1. US Federal regulations

Masters® Rear View Mirror Adhesive, MA2

SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
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hydroxypropyl methacrylate (27813-02-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

isobornyl acrylate (5888-33-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

cumene hydroperoxide (80-15-9)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on United States SARA Section 313

RQ (Reportable quantity, section 304 of EPA's List of Lists)	10 lb
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acrylic acid (79-10-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on United States SARA Section 313

RQ (Reportable quantity, section 304 of EPA's List of Lists)	5000 lb
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3-glycidyloxypropyltrimethoxysilane (2530-83-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Ethoxylated bisphenol A dimethacrylate (41637-38-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

saccharin (81-07-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on United States SARA Section 313

RQ (Reportable quantity, section 304 of EPA's List of Lists)	100 lb
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2'-phenylacetohydrazide (114-83-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Aliphatic Urethane Acrylate Resin

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

1,6-hexanediol diacrylate (13048-33-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

No additional information available

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

Skin Irrit. 2 H315
Eye Irrit. 2A H319
Skin Sens. 1 H317
STOT SE 3 H335
EUH208: Contains 1-acetyl-2-phenylhydrazine. May produce an allergic reaction.

15.2.2. National regulations

No additional information available

15.3. US State regulations

cumene hydroperoxide (80-15-9)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

acrylic acid (79-10-7)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

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saccharin (81-07-2)

U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Full text of H-phrases:

Acute Tox. 2 (Dermal)	Acute toxicity (dermal), Category 2
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 3	Hazardous to the aquatic environment — Acute Hazard, Category 3
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Carc. 1B	Carcinogenicity, Category 1B
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Flam. Liq. 4	Flammable liquids, Category 4
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Sensitisation — Skin, category 1
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H227	Combustible liquid
H302	Harmful if swallowed
H310	Fatal in contact with skin
H311	Toxic in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H350	May cause cancer
H402	Harmful to aquatic life
H411	Toxic to aquatic life with long lasting effects

NFPA health hazard

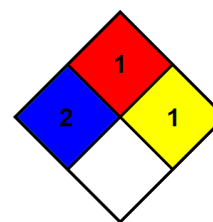
: 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

NFPA fire hazard

: 1 - Must be preheated before ignition can occur.

NFPA reactivity

: 1 - Normally stable, but can become unstable at elevated temperatures and pressures or may react with water with some release of energy, but not violently.



HMIS III Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur
Flammability : 1 Slight Hazard
Physical : 1 Slight Hazard
Personal Protection : B

SDS US (GHS HazCom 2012)

This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

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