



SAFETY DATA SHEET

according to WHMIS 2015 and ANSI Z400.1-2010

Revision date: 16/Jan/2017
Version: 4
Language: en-CA,US
Date of print: 31/Jan/2017

RK-7100 Hardener

Material number 105662

Page: 1 of 11

1. Product and company identification

Product identifier

Trade name: RK-7100 Hardener

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

General use: Acrylic resin (Curing agent)

Details of the supplier of the safety data sheet

Company name: WEICON Inc.
Street/POB-No.: 20 Steckle Place, Unit 20
Postal Code, city: Kitchener, Ontario N2E 2C3, CA
WWW: www.weicon.ca
E-mail: info@weicon.ca
Telephone: +1-519-896-5252
Telefax: +1-519-896-5254
Dept. responsible for information:
Product-Safety-Department
Telephone: +49(0)251 / 9322 - 0, Email: msds@weicon.de

Emergency phone number

EMERGENCY CONTACT – Canada (24h): Tel: ++1 866 928 0789 (Toll free)

Transport:

TRANSPORT EMERGENCY CONTACT - Canada (24h): Tel: ++1 866 928 0789 (Toll free)

2. Hazards identification

Emergency overview

Appearance: Physical state at 20 °C and 101.3 kPa: liquid
Color: whitish
Odor: stinging
Classification: Flammable Liquid 2; Skin Irritation 2; Sensitization - skin 1;
Specific Target Organ Toxicity (Single Exposure) 3;

Hazard symbols:



Signal word:

Danger

Hazard statements:

Highly flammable liquid and vapor.
Causes skin irritation.
May cause an allergic skin reaction.
May cause respiratory irritation.



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Precautionary statements: Keep out of reach of children.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Avoid breathing vapors/spray.
Wash hands and face thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection.
IF ON SKIN: Wash with plenty of water/soap.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/or shower.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER/doctor if you feel unwell.
Specific treatment (see 'First aid' on this label).
If skin irritation or rash occurs: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
In case of fire: Use dry powder, foam or water spray for extinction.
Store in a well-ventilated place. Keep container tightly closed. Keep cool.
Store locked up.
Dispose of contents/container to hazardous or special waste collection point.

Regulatory status

This material is considered hazardous by the U.S. OSHA Hazard Communication Standard (29 CFR 1910.1200) and SIMDUT in Canada.

Hazards not otherwise classified

Potentially explosive mixtures may form if adequate ventilation is not provided.
Inhaling can lead to irritations of the respiratory tract and mucous membrane.
Higher doses may lead to a narcotic effect.

see section 11: Toxicological information

3. Composition / Information on ingredients

Relevant ingredients:

CAS No.	Designation	Content	Classification
CAS 80-62-6	Methyl methacrylate	50 - 75 %	Flammable Liquid 2. Skin Irritation 2. Sensitization - skin 1. Specific Target Organ Toxicity (Single Exposure) 3.
CAS 27138-31-4	Oxydipropyl dibenzoate	< 10 %	Aquatic toxicity - chronic 3.
CAS 34562-31-7	3,5-Diethyl-1,2-dihydro-1-phenyl-2-propylpyridine	< 3 %	Acute Toxicity 4 (oral). Acute Toxicity 4 (dermal). Skin Irritation 2. Eye Irritation 2A. Aquatic toxicity - chronic 4.

4. First aid measures

General information: Take off contaminated clothing and wash it before reuse. Symptoms of poisoning may develop several hours following exposure. Victim should be under medical observation for at least 48 hours after exposure.



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- In case of inhalation: Move victim to fresh air; if necessary, provide artificial respiration or oxygen. If unconscious place in recovery position and seek medical advice. Seek medical treatment in case of troubles.
- Following skin contact: After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. In case of skin reactions, consult a physician.
- After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an ophthalmologist.
- After swallowing: Do not induce vomiting. Rinse mouth with water. Never give anything by mouth to an unconscious person. Seek medical attention.

Most important symptoms and effects, both acute and delayed

Causes skin irritation. May cause an allergic skin reaction. May cause respiratory irritation.

Respiratory complaints, vomiting, drowsiness.

Information to physician

Treat symptomatically.

5. Fire fighting measures

Flash point/flash point range:

10 °C (c.c.)

Auto-ignition temperature: No data available

Suitable extinguishing media:

Foam, Extinguishing powder, dry sand, carbon dioxide, water mist

Extinguishing media which must not be used for safety reasons:

High power water jet

Specific hazards arising from the chemical

Highly flammable liquid and vapor.

Hazardous vapors may form during fires. In case of fire may be liberated: carbon monoxide and carbon dioxide, nitrogen oxides (NO_x), Metallic oxides.

Air combined with vapors may form potentially explosive mixtures that are heavier than air. Vapor may travel great distances and cause fire and backflashes.

Protective equipment and precautions for firefighters:

Wear self-contained positive pressure breathing apparatus and full firefighting protective clothing. In case of fire and/or explosion do not breathe fumes.

Additional information:

Cool exposed containers with water spray. Heating will lead to pressure increase: Danger of bursting and explosion.

Move undamaged containers from immediate hazard area if it can be done safely. Fire residuals and contaminated extinguishing water must be disposed of in accordance with the regulations of the local authorities.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

6. Accidental release measures

Personal precautions:

Provide adequate ventilation. Eliminate all ignition sources if safe to do so. Wear appropriate protective equipment. Take off contaminated clothing and wash it before reuse. Use a breathing protection against vapors/aerosol. Do not breathe vapor or spray. Avoid contact with skin and eyes. Keep unprotected people away.

Environmental precautions:

Do not allow to enter into ground-water, surface water or drains. Do not allow to enter into soil/subsoil.

In case of release, notify competent authorities.



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Methods for clean-up: Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13).
Beware of reignition. Thoroughly clean surrounding area.
In case of greater quantities: Collect mechanically (use only explosion-proof equipment when pumping out).
Leaking cans, cans with spillage, are to be segregated, sprayed to empty state and disposed of. Refer to section 13 (Waste removal)

7. Handling and storage

Handling

Advices on safe handling: Provide for good room ventilation, suctioning/venting. Do not breathe vapors. Guarantee sufficient ventilation during and after use, in order to prevent vapour accumulation.
Wear appropriate protective equipment. Take off contaminated clothing and wash it before reuse.
Avoid contact with skin and eyes. When using do not eat, drink or smoke. Wash hands before breaks and after work.

Precautions against fire and explosion: Take precautionary measures against static discharges. Keep away from sources of ignition - No smoking.
Use only explosion-protected equipment/instruments. Do not weld.
In partially filled containers explosive mixtures may form.

Storage

Requirements for storerooms and containers: Keep container tightly closed and in a well-ventilated place.
Keep container dry. Keep only in the original container.
Protect from exposure to heat, direct sunlight, and cold.
Store containers in upright position. Explosion protection required.
Keep locked up.

Hints on joint storage: Do not store together with combustible or self-igniting materials or any highly flammable solids. (Oxidising agent)
Keep away from food, drink and animal feedingstuffs.

8. Exposure controls / personal protection

Exposure guidelines

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
80-62-6	Methyl methacrylate	Canada, Alberta: OEL 15 min	410 mg/m ³ ; 100 ppm
		Canada, Alberta: OEL 8 hour	205 mg/m ³ ; 50 ppm
		Canada, BC: OEL TWA	100 mg/m ³ ; 50 ppm
		Canada, Québec: VEMP	205 mg/m ³ ; 50 ppm
		USA: ACGIH: STEL	410 mg/m ³ ; 100 ppm
		USA: ACGIH: TWA	205 mg/m ³ ; 50 ppm
		USA: NIOSH: TWA	410 mg/m ³ ; 100 ppm
		USA: OSHA: TWA	410 mg/m ³ ; 100 ppm

Engineering controls

Provide for good ventilation or exhaust system or work with completely self-contained equipment. Explosion protection required.
See also information in chapter 7, section storage.



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Personal protection equipment (PPE)

- Eye/face protection: Tightly sealed goggles according to OSHA Standard - 29 CFR: 1910.133 or ANSI Z87.1-2010.
- Skin protection: Flame retardant, antistatic and chemical resistant protective clothing.
Protective gloves according to OSHA Standard - 29 CFR: 1910.138.
Glove material: Neoprene
Breakthrough time: > 480 min
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.
- Respiratory protection: Respiratory protection must be worn whenever the TLV (WEL) levels have been exceeded.
The filter class must be suitable for the maximum contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product.
- General hygiene considerations:
Use only non-sparking tools. Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.
Use a breathing protection against vapors/aerosol. Do not breathe vapor or spray.
Avoid contact with skin and eyes. Have eye wash bottle or eye rinse ready at work place. Take off contaminated clothing and wash it before reuse.
When using do not eat, drink or smoke. Wash hands before breaks and after work.

Environmental exposure controls

Do not allow to enter into ground-water, surface water or drains.

9. Physical and chemical properties

Information on basic physical and chemical properties

- Appearance: Physical state at 20 °C and 101.3 kPa: liquid
Color: whitish
- Odor: stinging
- Odor threshold: No data available
- pH value: not determined
- Melting point/freezing point: not determined
- Initial boiling point and boiling range: not determined
- Flash point/flash point range: 10 °C (c.c.)
- Evaporation rate: No data available
- Flammability: Highly flammable liquid and vapor.
- Explosion limits: No data available
- Vapor pressure: No data available
- Vapor density: No data available
- Density: 0.97 - 1.01 g/cm³
- Water solubility: insoluble
- Partition coefficient: n-octanol/water: No data available
- Auto-ignition temperature: No data available
- Thermal decomposition: No data available
- Viscosity, dynamic: not determined
- Viscosity, kinematic: at 40 °C: ≥ 40.0 mm²/s
- Explosive properties: Potentially explosive mixtures may form if adequate ventilation is not provided.
- Ignition temperature: not determined



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10. Stability and reactivity

- Reactivity: Highly flammable liquid and vapor.
Vapors may form explosive mixtures with air.
- Chemical stability: Stable under recommended storage conditions.
- Possibility of hazardous reactions
Heating will lead to pressure increase: Danger of bursting and explosion.
Polymerization may occur in case of strong heating.
- Conditions to avoid: Keep away from heat sources, sparks and open flames.
Protect against direct sunlight.
- Incompatible materials: Oxidizing agents.
- Hazardous decomposition products: No decomposition when used properly.
- Thermal decomposition: No data available

11. Toxicological information

Toxicological tests

- Toxicological effects: The statements are derived from the properties of the single components. No toxicological data is available for the product as such.
- Acute toxicity (oral): Based on available data, the classification criteria are not met.
ATEmix (calculated): > 5000 mg/kg.
- Acute toxicity (dermal): Based on available data, the classification criteria are not met.
ATEmix (calculated): > 5000 mg/kg.
- Acute toxicity (inhalative): Based on available data, the classification criteria are not met.
ATEmix (calculated): > 5 mg/L. (Aerosol)
- Skin corrosion/irritation: Skin Irritation 2 = Causes skin irritation.
- Eye damage/irritation: Lack of data.
- Sensitisation to the respiratory tract: Lack of data.
- Skin sensitisation: Sensitization - skin 1 = May cause an allergic skin reaction.
- Germ cell mutagenicity/Genotoxicity: Lack of data.
- Carcinogenicity: Lack of data.
- Reproductive toxicity: Lack of data.
- Effects on or via lactation: Lack of data.
- Specific target organ toxicity (single exposure): Specific Target Organ Toxicity (Single Exposure) 3 = May cause respiratory irritation.
- Information about Oxydipropyl dibenzoate:
NOAEL Rat, oral: 1000 mg/kg/90d bw/d
- Specific target organ toxicity (repeated exposure): Lack of data.
- Aspiration hazard: Lack of data.



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Other information:

Information about Methyl methacrylate:

LD50 Rat, oral: 7872 mg/kg

LD50, Rabbit, dermal: > 5000 mg/kg

LC50, Rat, inhalative: 78 mg/L (vapors)

Information about Oxydipropyl dibenzoate:

LD50 Rat, oral: 3295 mg/kg

LD50 Rabbit, dermal: >2000 mg/kg

LC50 inhalative (Dusts and mist): >200 mg/L/4h

Information about 3,5-Diethyl-1,2-dihydro-1-phenyl-2-propylpyridine:

LD50 Rat, oral: > 1620 mg/kg

LD50 Rabbit, dermal: > 1000 mg/kg

For carcinogenic effects:

Information about Methyl methacrylate:

IARC Rating: Group 3

OSHA Carcinogen: not listed

NTP Rating: not listed

Symptoms

Prolonged/repetitive skin contact may cause skin defatting or dermatitis.

When vapors form: Irritation of the mucous membrane. Respiratory complaints, vomiting, drowsiness, redness

12. Ecological information

Ecotoxicity

Aquatic toxicity:

Information about Methyl methacrylate:

Algae toxicity:

EC50 Pseudokirchneriella subcapitata (green algae): > 110 mg/L/ 72 h (OECD 201).

Daphnia toxicity:

EC50 Daphnia magna (Big water flea): 69 mg/L/ 48 h .

Fish toxicity:

LC50 Lepomis macrochirus (bluegill): 191 mg/L/ 96 h (EPA-660/3-75-009).

LC50 Oncorhynchus mykiss: > 79 mg/L /96 h.

Information about Oxydipropyl dibenzoate:

Algae toxicity:

EC50: 4,9 mg/L/ 72 h .

Daphnia toxicity:

EC50: 19,3 mg/L/ 48 h .

Fish toxicity:

LC50: 3,7 mg/L/ 96 h .

Mobility in soil

No data available

Persistence and degradability

Further details:

Biodegradation:

Information about Methyl methacrylate:

> 95 %/28 d (OECD 302 B). Product is readily biodegradable.

Information about Oxydipropyl dibenzoate:

87 %/28 d. Product is readily biodegradable.



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Additional ecological information

Volatile organic compounds (VOC):

50.7 % by weight

General information:

Do not allow to enter into ground-water, surface water or drains. Do not allow uncontrolled discharge of product into the environment.

13. Disposal considerations

Product

Recommendation: Dispose of waste according to applicable legislation.

Contaminated packaging

Recommendation: Dispose of waste according to applicable legislation. Handle contaminated packages in the same way as the substance itself.

14. Transport information

USA: Department of Transportation (DOT)

Identification number: UN1133
Proper shipping name: UN 1133, adhesives
Hazard class or Division: 3
Packing Group: II
Labels: 3
Special provisions: 149, B52, IB2, T4, TP1, TP8
Packaging – Exceptions: 150
Packaging – Non-bulk: 173
Packaging – Bulk: 242
Quantity limitations – Passenger aircraft / rail: 5 L
Quantity limitations – Cargo only: 60 L
Vessel stowage – Location: B
Vessel stowage – Other:



Canada: Transportation of Dangerous Goods (TDG)

UN Number: UN1133
Shipping name: UN 1133, adhesives
TDG class: 3
Packing group: II
Explosive limit and limited quantity index: 5L
Passenger carrying road or rail index: 5L



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Sea transport (IMDG)

UN number: UN 1133
Proper shipping name: UN 1133, Adhesives
Class or division, Subsidiary risk: Class 3, Subrisk-
Packing Group: II
EmS: F-E, S-D
Special provisions: -
Limited quantities: 5 L
Excepted quantities: E2
Contaminated packaging - Instructions: P001
Contaminated packaging - Provisions: PP1
IBC - Instructions: IBC02
IBC - Provisions: -
Tank instructions - IMO: -
Tank instructions - UN: T4
Tank instructions - Provisions: TP1, TP8
Stowage and handling: Category B.
Properties and observations: Adhesives are solutions of gums, resins, etc., usually volatile due to the solvents. Miscibility with water depends upon their composition.
Marine pollutant: no
Segregation group: none

Air transport (IATA)

UN/ID number: UN 1133
Proper shipping name: UN 1133, Adhesives
Class or division, Subsidiary risk: Class 3
Packing Group: II
Hazard label: Flamm. liquid
Excepted Quantity Code: E2
Passenger and Cargo Aircraft: Ltd.Qty.: Pack.Instr. Y341 - Max. Net Qty/Pkg. 1 L
Passenger and Cargo Aircraft: Pack.Instr. 353 - Max. Net Qty/Pkg. 5 L
Cargo Aircraft only: Pack.Instr. 364 - Max. Net Qty/Pkg. 60 L
Special provisions: A3
Emergency Response Guide-Code (ERG): 3L

15. Regulatory information

National regulations - Canada

No data available



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National regulations - U.S. Federal Regulations

Methyl methacrylate:

TSCA Inventory: listed; EPA flags T
TSCA HPVC: not listed
TSCA: listed - Flags: T
Carcinogen Status:
IARC Rating: Group 3
OSHA Carcinogen: not listed
NTP Rating: not listed
Clean Air Act:
Hazardous Air Pollutants: Code XOY
SOCMI Chemical: yes
Clean Water Act:
Hazardous Substances: RQ 1000 lbs.
Other Environmental Laws:
CERCLA: RQ 1000 lbs.
RCRA Hazardous Wastes: Code U162
RCRA Groundwater Monitoring: Methods 8015, 8240 / PQL
2, 5
SARA Title III Section 313, Toxic Release: Conc. 1.0% /
Threshold Standard
NIOSH Recommendations:
Occupational Health Guideline: 0426

3,5-Diethyl-1,2-dihydro-1-phenyl-2-propylpyridine:

TSCA Inventory: listed
TSCA HPVC: not listed

National regulations - U.S. State Regulations

Methyl methacrylate:

Delaware Air Quality Management List:
DRQ: 1000 - RQ State: Federal Regulations Apply
Idaho Air Pollutant List:
Title 585; AAC: 20,5 - EL: 27,3 - OEL: 410 - Title 586: -
Massachusetts Haz. Substance Codes: 2,4,5,6 F8 F9
Main: HAP - 2000
Minnesota Haz. Substance:
Codes: AO - Ratings: 3.79 - Status: Air Pollutant. Title III. TRI.
New Jersey RTK Hazardous Substance:
DOT: 1247 - Sub No.: 1277
New York List of Hazardous Substances:
RQ-Air: 1000 - RQ-Land: 1
No Note Associated with this chemical
Pennsylvania Haz. Substance Code: E
Washington Air Contaminant: TWA: 100 ppm = 410 mg

16. Other information

Text for labeling:

Contains 50 - 75 % Methyl methacrylate, < 10 % Oxydipropyl dibenzoate, < 3 %
3,5-Diethyl-1,2-dihydro-1-phenyl-2-propylpyridine. Safety data sheet available on request.

Hazard rating systems:



NFPA Hazard Rating:

Health: 2 (Moderate)

Fire: 3 (Serious)

Reactivity: 1 (Slight)

HMIS Version III Rating:

Health: 2 (Moderate) - Chronic effects

Flammability: 3 (Serious)

Physical Hazard: 1 (Slight)

Personal Protection: X = Consult your supervisor

HEALTH	*	2
FLAMMABILITY		3
PHYSICAL HAZARD		1
		X



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Reason of change: Changes in section 3: Composition / Information on ingredients
General revision

Date of first version: 5/Feb/2016

Department issuing data sheet

Contact person: see section 1: Dept. responsible for information

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.