

PRECISION COATINGS SAFETY DATA SHEET

Section 1. Identification

GHS product identifier: 16070 Urethane Retarder
Product number: 16070
Product use: Surface Coating Additive
Restrictions on use: None known
Manufacture/Supplier: Precision Coatings
Address: 1940 E. Trafficway
Springfield, MO 65802
Telephone: 417-862-5738
FAX: 417-862-8874
Website: www.precisioncoatingsinc.com
Emergency telephone number: 800-424-9300 Chemtrec Contract CCN675735

Section 2. Hazards identification

OSHA/HCS status: This material is considered hazardous by the OSHA Hazardous Communication Standard (29 CFR 1910.1200).

Hazard classification:

Physical hazards: Flammable Liquids: Category 3

Health hazards: Acute Toxicity (Inhalation): Category 4
Acute Toxicity (Oral): Category 4
Specific Target Organ Toxicity (Single Exposure) (Central Nervous System):
Category 3

GHS label elements

Hazard pictograms:



Signal word: Warning

Hazard statements: H226: Flammable liquid and vapor.
H302: Harmful if swallowed.
H332: Harmful if inhaled.
H336: May cause drowsiness or dizziness.

Precautionary statements:

Prevention: P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233: Keep container tightly closed.
P240: Ground/bond container and receiving equipment.
P241: Use explosion-proof electrical/ventilating/lighting/equipment.
P242: Use only non-sparking tools.
P243: Take precautionary measures against static discharge.
P261: Avoid breathing dust/fume/gas/mist/vapors/spray.
P264: Wash thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P271: Use only outdoors or in a well-ventilated area.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response: P370+P378: In case of fire; Use water spray, carbon dioxide, dry chemical or alcohol foam for extinction.
P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

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P363: Wash contaminated clothing before reuse.
P301+P312+P330: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.
P304+P340+P312: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
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.

Storage: P403+P233: Store in a well-ventilated place. Keep container tightly closed.
P235: Keep cool.
P405: Store locked up.

Disposal: P501: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Hazard(s) not otherwise classified (HNOC): None known.

Section 3. Composition / Information on Ingredients

Components	CAS #	Percent
Methyl n-amyl ketone	110-43-0	100

Section 4. First aid measures

Eye Contact: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. In case of irritation from airborne exposure, move to fresh air. Seek medical advice. If eye irritation persists, consult a specialist.

Skin Contact: Wash off with soap and water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. If symptoms persist, call a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that gas or vapor is still present, the rescuer should wear an appropriate mask of self –contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Ingestion: Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute

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Potential acute health effects

Eye contact: Causes eye irritation.

Skin contact: Causes skin irritation.

Inhalation: Harmful if inhaled. May cause drowsiness and dizziness.

Ingestion: Harmful if swallowed.

Over-exposure signs/symptoms

Eye contact: Adverse symptoms may include the following:
pain or irritation.
Watering
Redness

Skin contact: Adverse symptoms may include the following:
irritation
redness

Inhalation: Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

Ingestion: Adverse symptoms may include the following:
nausea or vomiting

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician: Treat symptomatically

Specific treatments: Treat symptomatically and supportively.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. If it is suspected that gas or vapor is still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Section 5. Fire-fighting measures

Suitable extinguishing media: Use dry chemical, carbon dioxide, water spray (fog) or foam.

Unsuitable extinguishing media: None known

Special hazards arising from the substance or mixture: Flammable liquid and vapor. In a fire or if heated, a pressure increase will

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occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

Hazardous thermal decomposition products:

Decomposition products may include the following materials: carbon dioxide, carbon monoxide, smoke, oxides of nitrogen.

Special protective actions for fire-fighters:

Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.

Special protective equipment for fire-fighters:

Fire-fighters should wear appropriate protective equipment and self contained breathing apparatus with full face piece operated in the positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and material for containment and cleaning up: Eliminate sources of ignition. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Avoid runoff into storm sewers and ditches which lead to waterways. Use only non-combustible material for clean-up. Recover by pumping (use explosion proof or hand pump). Use clean, non-sparking tools to collect absorbed materials. Eliminate all ignition sources. Prevent additional discharge of material is able to do so safely. Do not touch or walk through spilled material. Collect spilled materials for disposal. Wear appropriate personal protective equipment (see Section 8 Exposure controls/personal protection). Evacuate unnecessary personnel. Do not apply water to the leak.

Section 7. Handling and storage

Precautions for safe handling: Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not swallow. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion proof electrical equipment. Empty containers retain

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product residue and can be hazardous. Do not reuse container. Ground and bond containers when transferring material. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities:

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls / personal protection

Control parameters Occupational exposure limits

U.S. ACGIH Threshold Limit Values

Components	Type	Value	Form
Heptan-2-one; methyl amyl ketone	TWA	50ppm	

U.S. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Heptan-2-one; methyl amyl ketone	PEL	100ppm 465 mg/m ³	

Appropriate engineering controls:

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

! Individual protection measures

Hygiene measures:

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection:

Safety glasses equipped with side shields are recommended as minimum protection in industrial settings.

Skin protection

Hand protection:

Chemical-resistant gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers.

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Body protection:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection:	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection:	Use a properly fitted, air-purifying or supplied-air respirator complying with an approved standard if a risk assessment indicated this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical & Chemical Properties

Appearance

Physical state:	Liquid
Form:	Liquid
Color:	Opaque
Odor:	Pungent
Odor threshold:	0.2 ppm
pH:	Not available
Melting point/freezing point:	Not available
Initial boiling point and boiling range:	152°C
Flash point:	39°C (Tag closed cup)
Evaporation rate:	0.34
Upper/lower flammability or explosive limits:	Not available
Vapor pressure:	2.8 mbar (20°C)
Vapor density:	3.9
Relative density:	0.81 (20°C)
Solubility(ies):	Water slightly soluble
Partition coefficient: n-octanol/water:	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity:	18"-22" # 4 Ford cup
VOC:	815 grams/liter

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Other information: No additional information

Section 10. Chemical stability & reactivity information

Reactivity: None known.

Chemical stability: Stable.

Possibility of hazardous reactions: None known.

Conditions to avoid: All possible sources of ignition (heat, sparks, flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.

Incompatible materials: Strong oxidizing agents. Strong acids. Strong alkalis.

Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Oral: Heptan-2-one; methyl amyl ketone: Oral LD50: (Rat): 1,600 mg/kg

Dermal: Heptan-2-one; methyl amyl ketone: Dermal LD50: (Rat): > 2,000 mg/kg

Inhalation: Heptan-2-one; methyl amyl ketone: LC50: (Rat, 4 h): > 16.7 mg/l

Irritation/Corrosion

Skin: Heptan-2-one; methyl amyl ketone: (Rabbit, 24 h): moderate

Eyes: Heptan-2-one; methyl amyl ketone: (Rabbit, 24 h): slight

Respiratory: Not available

Sensitization

Skin: Heptan-2-one; methyl amyl ketone: (Mouse) – non-sensitizing

Respiratory: Not available

Mutagenicity

Conclusion/Summary: Heptan-2-one; methyl amyl ketone: not available

Carcinogenicity

Conclusion/Summary: Heptan-2-one; methyl amyl ketone: not available

Reproductive toxicity

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Conclusion/Summary:	Heptan-2-one; methyl amyl ketone: not available
Specific target organ toxicity (single exposure):	Heptan-2-one; methyl amyl ketone: not available
Specific target organ toxicity (repeated exposure):	Heptan-2-one; methyl amyl ketone: not available
Aspiration hazard:	Heptan-2-one; methyl amyl ketone: not available
Information on likely routes of exposure:	Routes of entry anticipated: Oral, Dermal, Inhalation.
<u>Potential acute health effects:</u>	
Eye contact:	Causes eye irritation.
Inhalation:	Harmful if inhaled. May cause drowsiness and dizziness.
Skin contact:	Causes skin irritation.
Ingestion:	Harmful if swallowed
<u>Symptoms related to the physical, chemical and toxicological characteristics</u>	
Eye contact:	Adverse symptoms may include pain or irritation, watering, redness.
Inhalation:	Adverse symptoms may include nausea or vomiting, headache, drowsiness/fatigue, dizziness/vertigo, unconsciousness.
Skin contact:	Adverse symptoms may include irritation, redness.
Ingestion:	Adverse symptoms may include nausea or vomiting.
Potential chronic health effects:	Not available

Section 12. Ecological information

Toxicity

Acute toxicity

Fish

Product: Not available

Specified substances:

Heptan-2-one; methyl amyl ketone LC-50 (Fathead Minnow, 96 h): 131 mg/l

Aquatic invertebrates

Product: Not available

Chronic toxicity

Fish

Product: Not available

Aquatic invertebrates

Product: Not available

Toxicity to aquatic plants

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Product: Not available

Specified substances:
Heptan-2-one; methyl amyl ketone ErC50 (Selenastrum capricomutum, 72 h): 98.2 mg/l

Persistence and degradability

Biodegradation
Product: Not available

Specified substances:
Heptan-2-one; methyl amyl ketone 69% (28 d, Ready Biodegradability-CO2 in Sealed Vessels (Headspace Test))

Biological Oxygen Demand
Product: Not available

Specified substances:
Heptan-2-one; methyl amyl ketone BOD-5: 1,770 mg/g
BOD-20: 2,000 mg/g

Chemical Oxygen Demand
Product: Not available

Specified substances:
Heptan-2-one; methyl amyl ketone 2,420 mg/g

BOD/COD ratio: Not available

Bioaccumulative potential: Not available

Mobility in soil: Not available

Results of PBT and vPvB assessment: Not available

Other adverse effects: Not available

Section 13. Disposal considerations

Disposal methods: Dispose of waste in accordance with all local, state and federal regulations.

Section 14. Transport information

DOT

Basic shipping requirements: Not regulated as a dangerous good

IATA

Basic shipping requirements:

UN Number	1110
Proper shipping name	n-Amyl methyl ketone
Hazard class	3
Packing group	III

Section 15. Regulatory information

US federal regulations

OSHA: This product is hazardous according to OSHA 29 CFR 1910.1200

SARA Title III Section 313 – Toxic Chemical: Listed Substance: None

SARA Title III Section 302 Extremely hazardous substances: None

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SARA Title III Section 311/312 Hazard categories:

Immediate (acute) health hazard
Fire hazard

Inventory Status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

* A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

State Regulations

California Proposition 65: **Warning:** This product does not contain chemicals known to the State of California to cause cancer.
Warning: This product does not contain chemicals known to the State of California to cause birth defects or other reproductive harm.

Massachusetts RTK: Methyl amyl ketone 110-43-0

New Jersey RTK: Methyl amyl ketone 110-43-0

Pennsylvania RTK: Methyl amyl ketone 110-43-0

Section 16. Other Information

Further information HMIS® is a registered trade and service mark of the NPCA

HMIS® ratings Health: 2
Flammability: 2
Physical hazard: 0

NFPA ratings Health: 1
Flammability: 2
Instability: 0

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