

SECTION 1 Identification

1.1. Product identifier

Product form : Mixture
Product name : Polycool HC-50 060330

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use : Heat transfer fluids
Restrictions on use : Product for industrial use only

1.4. Supplier's details

KitPackers, LLC
N109 W13300 Ellsworth Drive
Germantown, 53022
United States
T 1-877-259-1669
www.kitpackers.com

1.5. Emergency phone number

Emergency number : North America - Chemtrec: 1-800-424-9300 (24 hours)

SECTION 2 Hazard Identification

2.1. Classification of the substance or mixture

GHS US classification

Skin corrosion/irritation, Category 2	H315	Causes skin irritation.
Serious eye damage/eye irritation, Category 2B	H320	Causes eye irritation.

Full text of H statements : see section 16

2.2. Label elements

GHS US labeling

Hazard pictograms (GHS US)

:



Signal word (GHS US)

: Warning

Hazard statements (GHS US)

: H315 - Causes skin irritation
H320 - Causes eye irritation

Precautionary statements (GHS US)

: P264 - Wash hands, forearms and face thoroughly after handling.
P280 - Wear protective gloves, protective clothing, eye protection, face protection, and hearing protection.
P302+P352 - If on skin: Wash with plenty of 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.
P332+P313 - If skin irritation occurs: Get medical advice or attention.
P337+P313 - If eye irritation persists: Get medical advice or attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.

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2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

2.4. Hazards not otherwise classified

No additional information available

2.5. Unknown acute toxicity

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
potassium formate	CAS-No.: 590-29-4	5-75
Water, distilled	CAS-No.: 7732-18-5	25-95

Full text of hazard classes and H-statements : see section 16

SECTION 4 First aid measures

4.1. Description of necessary first-aid measures

First-aid measures general	: No particular/specific measures required.
First-aid measures after inhalation	: If inhaled: Remove person to fresh air and keep comfortable for breathing. Give oxygen or artificial respiration if necessary. Consult a doctor/medical service if you feel unwell.
First-aid measures after skin contact	: Gently wash with plenty of soap and water. Consult a physician after significant exposure.
First-aid measures after eye contact	: Immediately rinse with plenty of water (for at least 15 minutes). Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.
First-aid measures after ingestion	: Never give anything by mouth to an unconscious person. Rinse mouth out with water. Obtain medical attention.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation	: None under normal conditions.
Symptoms/effects after skin contact	: Irritation.
Symptoms/effects after eye contact	: Mild eye irritation.
Symptoms/effects after ingestion	: None under normal conditions.

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

Other medical advice or treatment	: Treat symptomatically.
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SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Dry chemical. ABC-powder. Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Do not use a heavy water stream.

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5.2. Specific hazards arising from the chemical

- Fire hazard : On exposure to high temperature, may decompose, releasing toxic gases. irritating vapors. Carbon oxides (CO, CO2).
- Explosion hazard : No direct explosion hazard.
- Hazardous decomposition products in case of fire : Toxic fumes may be released. Carbon oxides (CO, CO2).

5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
- Other information : Move containers away from the fire area if this can be done without risk. Control run-off water by containing and keeping it out of sewers and watercourses.

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage.

For non-emergency personnel

- Protective equipment : Wear recommended personal protective equipment.
- Emergency procedures : Evacuate unnecessary personnel. Only qualified personnel equipped with suitable protective equipment may intervene. Avoid breathing (dust, vapor, mist, gas).

For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
- Emergency procedures : Evacuate unnecessary personnel. Stop leak if safe to do so.
- Environmental precautions : Avoid release to the environment. Do not allow to enter drains or water courses.

6.2. Methods and materials for containment and cleaning up

- For containment : Recover small spills with a suitable absorbent, like diatomaceous earth. Collect absorbed substance in open drums. For large spills, confine the spill in a dike and charge it with wet sand or earth for subsequent safe disposal. Wear personal protective equipment. Carefully shovel or sweep up spilled material and place in suitable container. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk.
- Methods for cleaning up : Take up liquid spill into absorbent material.
- Other information : Dispose of materials or solid residues at an authorized site.

For further information refer to section 13

SECTION 7 Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station, ventilate curing ovens to prevent emissions in the workplace. Avoid contact with skin and eyes. Wear personal protective equipment.
- Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
- Additional hazards when processed : Not expected to present a significant hazard under anticipated conditions of normal use.

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7.2. Conditions for safe storage, including incompatibilities

Technical measures	: Ensure adequate ventilation, especially in confined areas.
Storage conditions	: Keep container tightly closed. Open drums with care.
Storage area	: Protect from heat and direct sunlight. Store in a clean, dry, fire resistant area.
Incompatible products	: Store, if possible, in a cool, well ventilated place away from incompatible materials.
Packaging materials	: Store always product in container of same material as original container.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

Monitoring methods

Monitoring methods	Contains no substances with occupational exposure limits.
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8.2. Appropriate engineering controls

Appropriate engineering controls	: Use only with adequate ventilation. Provide readily accessible eye wash stations and safety showers. Monitoring of oxygen level is recommended. Ensure good ventilation of the work station, ventilate curing ovens to prevent emissions in the workplace.
Environmental exposure controls	: Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment

Personal protective equipment:

Wear recommended personal protective equipment.

Hand protection:

Gloves. neoprene/butyl rubber. nitrile rubber gloves, natural rubber gloves

Eye protection:

Safety glasses

Skin and body protection:

Impervious clothing

Respiratory protection:

No respiratory protection needed under normal use conditions. If respiratory protection is needed, use only protection authorized in 29 CFR 1910.134, or applicable State regulations. Use supplied air respiration protection if oxygen levels are below 19.5% or are unknown.

Personal protective equipment symbol(s):



SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	: Liquid
Color	: Clear Yellow
Odor	: Odorless
Odor threshold	: No data available
pH	: 7 – 11
Melting point	: No data available

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Freezing point	: No data available
Boiling point	: No data available
Flash point	: > 93 °C
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Density	: 1 g/cm³
Solubility	: Solubility in water (mg/l).
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Explosion limits	: No data available
Particle characteristics	: No data available

9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

SECTION 10 Stability and reactivity

10.1. Reactivity

No specific data.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid high temperatures. Incompatible materials.

10.5. Incompatible materials

Acids. Oxidizing agents. Strong reducing agents. Acid anhydrides. Acid chlorides. chloroformates.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11 Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: No data available
Acute toxicity (dermal)	: No data available
Acute toxicity (inhalation)	: No data available

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LD50 oral rat	LD50 Oral - mouse: 5,500 mg/kg
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potassium formate (590-29-4)	
LD50 oral	5500 mg/kg body weight (Equivalent or similar to OECD 401, Mouse, Inconclusive, insufficient data, Oral)
LD50 dermal rat	> 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
ATE US (oral)	5500 mg/kg body weight

Water, distilled (7732-18-5)	
LD50 oral rat	≥ 90000 mg/kg

Skin corrosion/irritation : Causes skin irritation.
pH: 7 – 11

potassium formate (590-29-4)	
pH	7 – 8.5 (8.4 %)

Water, distilled (7732-18-5)	
pH	7

Serious eye damage/irritation : Causes eye irritation.
pH: 7 – 11

potassium formate (590-29-4)	
pH	7 – 8.5 (8.4 %)

Water, distilled (7732-18-5)	
pH	7

Respiratory or skin sensitization : No data available
Germ cell mutagenicity : No data available

Carcinogenicity : No data available

Reproductive toxicity : No data available
STOT-single exposure : No data available
STOT-repeated exposure : No data available
Aspiration hazard : No data available

potassium formate (590-29-4)	
Viscosity	Not applicable

Water, distilled (7732-18-5)	
Viscosity	1.004 mm²/s

Symptoms/effects after inhalation : None under normal conditions.
Symptoms/effects after skin contact : Irritation.
Symptoms/effects after eye contact : Mild eye irritation.
Symptoms/effects after ingestion : None under normal conditions.

SECTION 12 Ecological information

12.1. Ecotoxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

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Hazardous to the aquatic environment, short-term : No data available
(acute)

Hazardous to the aquatic environment, long-term : No data available
(chronic)

potassium formate (590-29-4)	
LC50 - Fish [1]	3500 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Semi-static system, Fresh water, Experimental value, GLP)
EC50 - Crustacea [1]	> 1000 mg/l (EPA 660/3 - 75/009, 48 h, Daphnia magna, Flow-through system, Fresh water, Read-across, GLP)
EC50 72h - Algae [1]	> 1000 mg/l (EPA 600/9-78-018, Pseudokirchneriella subcapitata, Static system, Fresh water, Read-across, GLP)

12.2. Persistence and degradability

Polycool HC-50 060330	
Persistence and degradability	Not rapidly degradable
potassium formate (590-29-4)	
Persistence and degradability	Readily biodegradable in water.
Water, distilled (7732-18-5)	
Persistence and degradability	Not rapidly degradable

12.3. Bioaccumulative potential

potassium formate (590-29-4)	
Partition coefficient n-octanol/water (Log Pow)	-2 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

12.4. Mobility in soil

potassium formate (590-29-4)	
Surface tension	72 mN/m (20 °C, Experimental value, 1 g/l, OECD 115: Surface Tension of Aqueous Solutions)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.49 (log Koc, Read-across)
Ecology - soil	Highly mobile in soil.

12.5. Other adverse effects

Ozone : No data available
Fluorinated greenhouse gases : No

SECTION 13 Disposal considerations

Regional waste regulation : Disposal must be done according to official regulations.
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations : Disposal must be done according to official regulations.
Product/Packaging disposal recommendations : Disposal must be done according to official regulations.
Additional information : Do not re-use empty containers.

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SECTION 14 Transport information

In accordance with DOT / IMDG / IATA

14.1. UN number

Not regulated for transport

14.2. UN Proper Shipping Name

Proper Shipping Name (DOT) : Not regulated
Proper Shipping Name (IMDG) : Not regulated
Proper Shipping Name (IATA) : Not regulated

14.3. Transport hazard class(es)

DOT
Transport hazard class(es) (DOT) : Not regulated

IMDG
Transport hazard class(es) (IMDG) : Not regulated

IATA
Transport hazard class(es) (IATA) : Not regulated

14.4. Packing group

Packing group (DOT) : Not regulated
Packing group (IMDG) : Not regulated
Packing group (IATA) : Not regulated

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Transport in bulk

Not applicable

14.7. Special precautions for user

DOT
Not regulated

IMDG
Not regulated

IATA
Not regulated

SECTION 15 Regulatory information

15.1. Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
potassium formate	590-29-4	Present	Active	
Water, distilled	7732-18-5	Present	Active	

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15.2. International regulations

CANADA

potassium formate (590-29-4)

Listed on the Canadian DSL (Domestic Substances List)

Water, distilled (7732-18-5)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

potassium formate (590-29-4)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Water, distilled (7732-18-5)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

potassium formate (590-29-4)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

Water, distilled (7732-18-5)

Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

15.3. State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16 Other information

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)

Issue date : 6/12/2025

Full text of hazard classes and H-statements	
H315	Causes skin irritation
H320	Causes eye irritation

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.