

Safety Data Sheet

URECON ACCELERATOR



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Version: 2.0

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1. Identification

Product identifier used on the label

URECON ACCELERATOR

Recommended use of the chemical and restriction on use

Recommended use*: Chemical

Suitable for use in industrial sector: chemical industry

* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Product: URECON ACCELERATOR
**Manufacturer/
Distributor:** Key Resin Company
Address: 4050 Clough Woods Dr. Batavia, OH 45103
Phone: (513) 943-4225
Website: www.keyresin.com
Chemtrec (800) 424-9300

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

Eye Dam./Irrit. 2A Serious eye damage/eye irritation

Label elements

Pictogram:

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Signal Word:
Warning

Hazard Statement:
H319 Causes serious eye irritation.

Precautionary Statements (Prevention):
P280 Wear eye/face protection.
P264 Wash with plenty of water and soap thoroughly after handling.

Precautionary Statements (Response):
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 + P311 If eye irritation persists: Call a POISON CENTER or doctor/physician.
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

Hazards not otherwise classified

Labeling of special preparations (GHS):

The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: $\geq 75\%$ Inhalation - vapour
The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: $\geq 75\%$ Inhalation - mist

According to Regulation 1994 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Emergency overview

CAUTION:
MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION.
INGESTION MAY CAUSE GASTRIC DISTURBANCES.
Avoid contact with the skin, eyes and clothing.
Avoid inhalation of mists/vapours.
Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator.
Wear NIOSH-certified chemical goggles.
Wear chemical resistant protective gloves.
Wear protective clothing.
Eye wash fountains and safety showers must be easily accessible.

3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Weight %
 $\geq 75.0\%$

According to Regulation 1994 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

CAS Number	Weight %	Chemical name
102-60-3	$\geq 75.0\%$	Tetrahydroxypropylethylenediamine

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4. First-Aid Measures

Description of first aid measures

General advice:

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

If on skin:

Wash thoroughly with soap and water.

If irritation develops, seek medical attention.

If in eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open.

If irritation develops, seek medical attention.

If swallowed:

Rinse mouth and then drink plenty of water. Do not induce vomiting. Immediate medical attention required.

Most important symptoms and effects, both acute and delayed

Symptoms: Eye irritation

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
water spray, dry powder, foam

Unsuitable extinguishing media for safety reasons:
water jet

Special hazards arising from the substance or mixture

Hazards during fire-fighting:
harmful vapours

Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters

Protective equipment for fire-fighting:
Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

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Further information:

The degree of risk is governed by the burning substance and the fire conditions. Contaminated extinguishing water must be disposed of in accordance with official regulations.

Impact Sensitivity:

Remarks: Based on the chemical structure there is no shock-sensitivity.

6. Accidental release measures

Further accidental release measures:

High risk of slipping due to leakage/spillage of product.

Personal precautions, protective equipment and emergency procedures

Use personal protective clothing. Information regarding personal protective measures see, section 8.

Environmental precautions

Do not discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up

For small amounts: Pick up with absorbent material (e.g. sand, sawdust, general-purpose binder).

Dispose of absorbed material in accordance with regulations.

For large amounts: Pump off product.

Place absorbed material in the same container as the spilled substance/product for disposal.

7. Handling and Storage

Precautions for safe handling

No special measures necessary provided product is used correctly.

Protection against fire and explosion:

Take precautionary measures against static discharges.

Conditions for safe storage, including any incompatibilities

Further information on storage conditions: Keep container tightly closed and dry; store in a cool place.

Storage stability:

Storage temperature: 70 - 80 °F

Protect against moisture.

8. Exposure Controls/Personal Protection

Advice on system design:

Provide local exhaust ventilation to control vapours/mists.

Personal protective equipment

Respiratory protection:

Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator.

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Hand protection:

Chemical resistant protective gloves

Eye protection:

Safety glasses with side-shields.

Body protection:

Body protection must be chosen based on level of activity and exposure.

General safety and hygiene measures:

Wear protective clothing as necessary to minimize contact. Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Avoid contact with skin and eyes. Remove contaminated clothing.

9. Physical and Chemical Properties

Form:	liquid	
Odour:	mild	
Colour:	white	
pH value:	approx. 10 not applicable	
Melting point:	approx. -40 °C	
glass transition temperature:	100 °C (13 mbar) Literature data.	
Boiling point:	> 200 °C	
Flash point:	not flammable	
Flammability:	dropped	
Autoignition:	1 mmHg (20 °C)	
Vapour pressure:	1.01 g/cm ³ (20 - 25 °C)	
Density:	1.01	
Relative density:	-2.08 (25 °C)	(calculated)
Partitioning coefficient n-octanol/water (log Pow):	No data available.	
Thermal decomposition:	900 mPa.s (60 °C)	
Viscosity, dynamic:		(other)
Particle size:		
Solubility in water:	(20 °C) miscible	
Molar mass:	292 g/mol	

10. Stability and Reactivity

Reactivity

Corrosion to metals:

No corrosive effect on metal.

Formation of flammable gases: Remarks:

Forms no flammable gases in the presence of water.

Chemical stability

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Possibility of hazardous reactions

No hazardous reactions when stored and handled according to instructions.
The product is chemically stable.

Conditions to avoid

Avoid moisture.

Incompatible materials

No data available.

Hazardous decomposition products

Decomposition products:

Hazardous decomposition products: No hazardous decomposition products known.

Thermal decomposition:

No data available.

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity

Assessment of acute toxicity: Ingestion may cause gastrointestinal disturbances.

Oral

Type of value: LD50

Species: rat

Value: 3,280 mg/kg

Information on: Tetrahydroxypropylethylenediamine

Type of value: LD50

Species: rat (female)

Value: 2,890 mg/kg (similar to OECD guideline 401)

Dermal

Type of value: LD50

Species: rat (male/female)

Value: > 2,000 mg/kg (OECD Guideline 402)

No mortality was observed.

Assessment other acute effects

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

Irritation / corrosion

Assessment of irritating effects: Causes serious eye damage.

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Skin

Species: rabbit
Result: non-irritant
Method: OECD Guideline 404

Information on: Tetrahydroxypropylethylenediamine

Species: rabbit
Result: non-irritant
Method: OECD Guideline 404

Eye

Information on: Tetrahydroxypropylethylenediamine

Species: rabbit
Result: non-irritant
Method: OECD Guideline 405

Sensitization

Assessment of sensitization: Skin sensitizing effects were not observed in animal studies.

Guinea pig maximization test
Result: Non-sensitizing.

Information on: Tetrahydroxypropylethylenediamine

Guinea pig maximization test
Species: guinea pig
Result: Non-sensitizing.
Method: OECD Guideline 406

Aspiration Hazard

No aspiration hazard expected.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: No known chronic effects.

Genetic toxicity

Information on: Tetrahydroxypropylethylenediamine

Assessment of mutagenicity: The substance was not mutagenic in bacteria. The substance was not mutagenic in mammalian cell culture. The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.

Carcinogenicity

Assessment of carcinogenicity: Study scientifically not justified.

Reproductive toxicity

Assessment of reproduction toxicity: The results of animal studies gave no indication of a fertility impairing effect. The results were determined in a Screening test (OECD 421/422).

Teratogenicity

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Assessment of teratogenicity: No indications of a developmental toxic / teratogenic effect were seen in animal studies. The results were determined in a Screening test (OECD 421/422).

Symptoms of Exposure

Eye irritation

Medical conditions aggravated by overexposure

Data available do not indicate that there are medical conditions that are generally recognized as being aggravated by exposure to this substance/product. See MSDS section 11 - Toxicological information.

12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Toxicity to fish

LC50 (96 h) > 2,000 mg/l, *Leuciscus idus*

LC0 (48 h) 1,000 mg/l, *Leuciscus idus*

Aquatic invertebrates

EC0 (48 h) >= 100 mg/l, *Daphnia magna* (Directive 92/69/EEC, C.2, static)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. Nominal concentration.

Aquatic plants

EC50 (72 h) 150.67 mg/l (growth rate), *Desmodesmus subspicatus* (Guideline 92/69/EEC, C.3)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. The statement of the toxic effect relates to the analytically determined concentration.

Chronic toxicity to fish

Study does not need to be conducted.

Chronic toxicity to aquatic invertebrates

No observed effect concentration (21 d) >= 10 mg/l, *Daphnia magna* (OECD Guideline 211, semistatic)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. Nominal values (confirmed by concentration control analytics)

Aquatic plants

Information on: Tetrahydroxypropylethylenediamine

EC50 (72 h) 150.67 mg/l (growth rate), *Desmodesmus subspicatus* (Guideline 92/69/EEC, C.3)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. The statement of the toxic effect relates to the analytically determined concentration.

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Assessment of terrestrial toxicity
Study scientifically not justified.

Toxicity to terrestrial plants

Information on: Tetrahydroxypropylethylenediamine

Microorganisms/Effect on activated sludge

Toxicity to microorganisms
DEV-L2 : > 1,000 mg/l

Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations.

Information on: Tetrahydroxypropylethylenediamine
OECD Guideline 209 aerobic
activated sludge, domestic/EC20 (30 min): 1,000 mg/l
The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations. The details of the toxic effect relate to the nominal concentration.
DIN EN ISO 8192 aquatic
activated sludge/No observed effect concentration (3 h): 700 mg/l

Persistence and degradability

Assessment biodegradation and elimination (H₂O)
Experience has shown that the product is difficult to eliminate in effluent treatment plants. Poorly biodegradable.

Elimination information

Information on: Tetrahydroxypropylethylenediamine
9 % BOD of the ThOD (28 d) (OECD 301F; ISO 9408; 92/69/EEC, C.4-D) (aerobic, predominantly domestic sewage)

Assessment of stability in water
In contact with water the substance will hydrolyse slowly.

Information on Stability in Water (Hydrolysis)
< 10 % (120 h) (pH value 7), (OECD Guideline 111)
The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.

Bioaccumulative potential

Assessment bioaccumulation potential
No significant accumulation in organisms is expected as a result of the distribution coefficient of n-octanol/water (log Pow).

Mobility in soil

Assessment transport between environmental compartments
No data available.

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13. Disposal considerations

Waste disposal of substance:

Dispose of in accordance with national, state and local regulations. It is the waste generator's responsibility to determine if a particular waste is hazardous under RCRA.

Container disposal:

Dispose of in a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

14. Transport Information

Land transport

USDOT

Not classified as a dangerous good under transport regulations

Sea transport

IMDG

Not classified as a dangerous good under transport regulations

Air transport

IATA/ICAO

Not classified as a dangerous good under transport regulations

15. Regulatory Information

Federal Regulations

Registration status:

Chemical TSCA, US released / listed

Cosmetic TSCA, US released / exempt

EPCRA 311/312 (Hazard categories): Not hazardous;

CERCLA RQ

100 LBS

CAS Number

75-56-9

Chemical name

Propylene oxide

CA Prop. 65:

WARNING: THIS PRODUCT CONTAINS A CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER.

NFPA Hazard codes:

Health : 2 Fire: 1 Reactivity: 0 Special:

HMIS III rating

Health: 2 Flammability: 1 Physical hazard: 1

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16. Other Information

The information contained herein is based on the data available to us and is believed to be correct. Key Resin Company makes no warranty expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. Key Resin Company assumes no responsibility for injury, loss or damage from the use of the product described.