

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/14/2015

Reviewed on 10/14/2015

1 Identification

- **Product identifier**
- **Trade name:** Uretek™ 2F Resin
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
 Uretek™
 P.O. Box 1394
 Tomball, TX 77377
 USA
 {ICR}: (888) 810-3107
 {USA}: (888) 287-3835
 uretekicr.com
 uretekusa.com
- **Information department:** EH&S Department
- **Emergency telephone number:**
 During normal operating hours: (770) 528-9556
 ChemTrec: (800) 424-9300

2 Hazard(s) identification

- **Classification of the substance or mixture**



Health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.



Corrosion

Eye Dam. 1 H318 Causes serious eye damage.



Skin Irrit. 2 H315 Causes skin irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS05



GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**
 EcOH™ X
 Tertiary Amine Catalyst
 2-[[2-(dimethylamino)ethyl]methylamino]ethanol

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N,N-bis[3-(dimethylamino)propyl]-*N,N'*-dimethylpropane-1,3-diamine**· Hazard statements***Causes skin irritation.**Causes serious eye damage.**May cause allergy or asthma symptoms or breathing difficulties if inhaled.**May cause an allergic skin reaction.***· Precautionary statements***[In case of inadequate ventilation] wear respiratory protection.**Avoid breathing dust/fume/gas/mist/vapors/spray**Wear protective gloves.**Wear eye protection / face protection.**Wash thoroughly after handling.**Contaminated work clothing must not be allowed out of the workplace.**If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.**Continue rinsing.**Immediately call a POISON CENTER/doctor.**Specific treatment (see on this label).**If experiencing respiratory symptoms: Call a POISON CENTER/doctor.**Wash contaminated clothing before reuse.**If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.**If skin irritation or rash occurs: Get medical advice/attention.**IF ON SKIN: Wash with plenty of water.**Take off contaminated clothing and wash it before reuse.**Dispose of contents/container in accordance with local/regional/national/international regulations.***· Classification system:****· NFPA ratings (scale 0 - 4)**

Health = 1

Fire = 1

Reactivity = 0

· HMIS-ratings (scale 0 - 4)

Health = 1

Fire = 1

Reactivity = 0

· Other hazards**· Results of PBT and vPvB assessment****· PBT:** Not applicable.**· vPvB:** Not applicable.

3 Composition/information on ingredients

· Chemical characterization: Mixtures**· Description:** Mixture of the substances listed below with nonhazardous additions.**· Dangerous components:**

	EcOH™ X	10-30%
	Skin Sens. 1, H317; Eye Irrit. 2B, H320	

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13674-84-5	tris(2-chlorisopropyl)-phosphate Acute Tox. 4, H302	5-10%
460-73-1	1,1,1,3,3-Pentafluoropropane Press. Gas, H280; Simple Asphyxiant	3-7%
2212-32-0	2-[[2-(dimethylamino)ethyl]methylamino]ethanol Resp. Sens. 1B, H334; Skin Sens. 1B, H317; Flam. Liq. 4, H227	1-5%
33329-35-0	N,N-bis[3-(dimethylamino)propyl]-N',N'-dimethylpropane-1,3-diamine Skin Corr. 1A, H314; Eye Dam. 1, H318; Acute Tox. 4, H312	1-5%
	Tertiary Amine Catalyst Acute Tox. 3, H311; Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Flam. Liq. 4, H227	1-5%
· Non-Hazardous Components		
	Polyol(s)	30-60%

4 First-aid measures

· Description of first aid measures**· General information:**

Immediately remove any clothing soiled by the product.

In case of irregular breathing or respiratory arrest provide artificial respiration.

First Aid responders should pay attention to self-protection and use the recommended protective clothing. If potential for exposure exists refer to Section 8 for specific personal protective equipment.

· After inhalation:

Supply fresh air or oxygen; call for doctor.

In case of unconsciousness place patient stably in side position for transportation.

· After skin contact:

Immediately wash with water and soap and rinse thoroughly.

Suitable emergency safety shower should be immediately available.

· After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· After swallowing:

Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

· Information for doctor:

Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

· Most important symptoms and effects, both acute and delayed No further relevant information available.**· Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

5 Fire-fighting measures

· Extinguishing media**· Suitable extinguishing agents:**

CO₂, extinguishing powder or water spray. Fight larger fires with water spray.

Use fire fighting measures that suit the environment.

· For safety reasons unsuitable extinguishing agents: Do not use direct water stream. May spread fire.**· Special hazards arising from the substance or mixture** There are no known unusual fire or explosion hazards.

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· Advice for firefighters**· Protective equipment:**

Mouth respiratory protective device.

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. PVC boots, gloves, safety helmet and protective clothing should be worn.

· Additional information

Keep people away. Isolate fire and deny unnecessary entry. Use water spray to cool fire exposed containers. Fight fire from protected location or safe distance. Move container(s) from fire area if this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Contain fire water run-off if possible. Fire water run-off if not contained, may cause environmental damage.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Isolate area. Keep unnecessary and unprotected personnel from entering the area. Spilled material may cause slipping hazard. Refer to Section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

· Environmental precautions:

Inform respective authorities in case of seepage into water course or sewage system.

Prevent from entering into soil or ditches. Inform the relevant authorities if the product has caused environmental pollution.

Do not allow to enter sewers/ surface or ground water.

· Methods and material for containment and cleaning up:

Ensure adequate ventilation.

Contain spilled material if possible. Absorb with materials such as: Dirt, Sand, Sawdust. Collect in suitable and properly labeled containers. Wash the spill site with water. See Section 13, Disposal Considerations, for additional information.

· Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

· Handling:**· Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Do not swallow. Wash thoroughly after handling. Keep container closed. See Section 8, Exposure Controls and Personal Protection.

· Information about protection against explosions and fires: Keep respiratory protective device available.**· Conditions for safe storage, including any incompatibilities****· Storage:****· Requirements to be met by storerooms and receptacles: No special requirements.****· Information about storage in one common storage facility: Not required.****· Further information about storage conditions:**

Keep receptacle tightly sealed.

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Storage Period: 6 months

Storage Temp: 15 -35 °C

· **Specific end use(s)** See the technical data sheet on this product for further information.

8 Exposure controls/personal protection

· Control parameters

· Components with limit values that require monitoring at the workplace:

460-73-1 1,1,1,3,3-Pentafluoropropane

TWA	Long-term value: 1644 mg/m ³ 300 ppm
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· **Additional information:** The lists that were valid during the creation were used as basis.

· Exposure controls

· Personal protective equipment:

· General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes and skin.

· Breathing equipment:

In case of brief exposure at low atmospheric levels use an approved air-purifying respiratory equipped with an organic vapor sorbent and a particle filter. In case of intensive or longer exposure use a positive pressure air-supplying respirator (air line or self-contained breathing apparatus).

Use suitable respiratory protective device in case of insufficient ventilation.

· Protection of hands:



Protective gloves

The workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

· Material of gloves

Use chemical resistant gloves classified under Standard EN374: Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include: Butyl rubber, Polyethylene, EVAL, Neoprene, Nitrile, Viton. When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher is recommended.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:

Safety glasses



Tightly sealed chemical goggles consistent with EN 166 or equivalent. Wear a face-shield which allows use of chemical goggles, or wear full-face respirator to protect face and eyes when there is any likelihood of splashes.

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· Body protection:

Personal protective clothing 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.

9 Physical and chemical properties

· Information on basic physical and chemical properties**· General Information****· Appearance:**

Form:	Fluid
Color:	According to product specification
Odor:	Characteristic
Odour threshold:	Not determined.

· pH-value: Not determined.**· Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.

· Flash point: Not applicable.**· Flammability (solid, gaseous):** Not applicable.**· Ignition temperature:****Decomposition temperature:** Not determined.**· Auto igniting:** Product is not selfigniting.**· Danger of explosion:** Product does not present an explosion hazard.**· Explosion limits:**

Lower:	Not determined.
Upper:	Not determined.

· Vapor pressure: Not determined.**· Density:** Not determined.**· Relative density** Not determined.**· Vapour density** Not determined.**· Evaporation rate** Not determined.**· Solubility in / Miscibility with****Water:** Not miscible or difficult to mix.**· Partition coefficient (n-octanol/water):** Not determined.**· Viscosity:****Dynamic:** Not determined.**Kinematic:** Not determined.**· Other information** No further relevant information available.

10 Stability and reactivity

· Reactivity No further relevant information available.

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- **Chemical stability** This product is stable at recommended storage conditions (See Section 7).
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** Avoid moisture to protect product quality.
- **Incompatible materials:**
Avoid contact with oxidizing materials. Avoid contact with: Strong acids. Strong bases. Avoid unintended contact with isocyanates. The reaction of polyols and isocyanates generate heat.
- **Hazardous decomposition products:** CO and CO₂

11 Toxicological information

Information on toxicological effects**Acute toxicity:****LD/LC50 values that are relevant for classification:****33329-35-0 N,N-bis[3-(dimethylamino)propyl]-N',N'-dimethylpropane-1,3-diamine**

Oral	LD50	2445 mg/kg (rat)
Dermal	LD50	1150 mg/kg (rabbit)
Inhalative	LC50/4 h	1.9 mg/l (rat)

Tertiary Amine Catalyst

Oral	LD50	1290 mg/kg (rat)
Dermal	LD50	370 mg/kg (rabbit)
Inhalative	LC50/4 h	>2.63 mg/l (rat)

Primary irritant effect:**on the skin:** Irritant to skin and mucous membranes.**on the eye:** Irritating effect.**Sensitization:** Sensitization possible through skin contact.**Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Toxic

Irritant

Carcinogenic categories**IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

NTP (National Toxicology Program)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

13674-84-5 tris(2-chlorisopropyl)-phosphate

12 Ecological information

Toxicity**Aquatic toxicity:** No further relevant information available.**Persistence and degradability** No further relevant information available.**Behavior in environmental systems:****Bioaccumulative potential** No further relevant information available.**Mobility in soil** No further relevant information available.

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· Additional ecological information:**· General notes:***Water hazard class 1 (Self-assessment): slightly hazardous for water**Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.***· Results of PBT and vPvB assessment****· PBT:** Not applicable.**· vPvB:** Not applicable.**· Other adverse effects** No further relevant information available.

13 Disposal considerations

· Waste treatment methods**· Recommendation:***Waste Disposal:* Incinerate in a licensed facility. Do not discharge into waterways or sewer systems.*Container Disposal:* Steel drums must be emptied (as defined by RCRA, Section 261.7 or state regulations that may be more stringent) and can be sent to a licensed drum reconditioner for reuse, a scrap metal dealer, or an approved landfill. Drums destined for a scrap dealer or landfill must be punctured or crushed to prevent reuse.**· Uncleaned packagings:****· Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· UN-Number**· DOT, ADN, IMDG, IATA** not regulated**· UN proper shipping name****· DOT, ADN, IMDG, IATA** not regulated**· Transport hazard class(es)****· DOT** DOT Non-Bulk: Not Regulated**· Class** not regulated**· ADN/R Class:** not regulated**· Packing group****· DOT, IMDG, IATA** not regulated**· Environmental hazards:** Not applicable.**· Special precautions for user** Not applicable.**· Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.**· UN "Model Regulation":** not regulated

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15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Clean Air Act**

None of the ingredients is listed.

· **Clean Water Act**

None of the ingredients is listed.

· **SARA**

· **SARA 302/304 Extremely Hazardous Substance**

None of the ingredients is listed.

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **Massachusetts Right To Know**

460-73-1 | 1,1,1,3,3-Pentafluoropropane

· **Proposition 65**

· **Chemicals known to cause cancer:**

13674-84-5 | tris(2-chlorisopropyl)-phosphate

460-73-1 | 1,1,1,3,3-Pentafluoropropane

· **Chemicals known to cause reproductive toxicity for females:**

13674-84-5 | tris(2-chlorisopropyl)-phosphate

· **Chemicals known to cause reproductive toxicity for males:**

13674-84-5 | tris(2-chlorisopropyl)-phosphate

· **Chemicals known to cause developmental toxicity:**

13674-84-5 | tris(2-chlorisopropyl)-phosphate

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

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· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS05 GHS08

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· **Signal word** *Danger*

· **Hazard-determining components of labeling:**

EcOH™ X

Tertiary Amine Catalyst

2-[[2-(dimethylamino)ethyl]methylamino]ethanol

N,N-bis[3-(dimethylamino)propyl]-N',N'-dimethylpropane-1,3-diamine

· **Hazard statements**

Causes skin irritation.

Causes serious eye damage.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause an allergic skin reaction.

· **Precautionary statements**

[In case of inadequate ventilation] wear respiratory protection.

Avoid breathing dust/fume/gas/mist/vapors/spray

Wear protective gloves.

Wear eye protection / face protection.

Wash thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Immediately call a POISON CENTER/doctor.

Specific treatment (see on this label).

If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

Wash contaminated clothing before reuse.

If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.

If skin irritation or rash occurs: Get medical advice/attention.

IF ON SKIN: Wash with plenty of water.

Take off contaminated clothing and wash it before reuse.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.*

16 Other information

Uretek™ urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown on this (M)SDS. However, no warranty, express or implied is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his/her activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDS, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.

· **Recommended restriction of use** *FOR PROFESSIONAL USE ONLY*

· **Department issuing SDS:** *Environmental Health & Safety Department.*

· **Contact:** *M. Phillips*

· **Date of preparation / last revision** *10/14/2015 / -*

· **Abbreviations and acronyms:**

DOT: US Department of Transportation

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ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Press. Gas: Gases under pressure: Compressed gas
Flam. Liq. 4: Flammable liquids, Hazard Category 4
Acute Tox. 4: Acute toxicity, Hazard Category 4
Acute Tox. 3: Acute toxicity, Hazard Category 3
Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A
Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
Eye Irrit. 2B: Serious eye damage/eye irritation, Hazard Category 2B
Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1
Resp. Sens. 1B: Sensitisation - Respirat., Hazard Category 1B
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
Skin Sens. 1B: Sensitisation - Skin, Hazard Category 1B

US