

SAFETY DATA SHEET

According to Regulation (EC) No 1907/2006 (REACH)

1. PRODUCT IDENTIFICATION

Trade Name(s): XT1 Bonding Agent
Product Description: Bonding agent for urethane coatings
Synonyms: N/A
CAS No: N/A

Supplier:
EPRO Services, Inc.
PO Box 347
Derby, KS 67037
800-882-1896 (8:00am – 5:00pm CST)

2. HAZARD(S) IDENTIFICATION

Physical hazards

Flammable liquids: Category 2

Health hazards

Serious eye damage/eye irritation: Category 2A

Specific target organ toxicity, single exposure: Category 3 narcotic effects

Environmental hazards: Not classified

OSHA defined hazards: Not classified.

Label elements:



Signal word: Danger

Hazard statement: Highly flammable liquid and vapor. Causes serious eye irritation. May cause drowsiness or dizziness.

Precautionary statement

Prevention: Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist or vapor. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/eye protection/face protection.

Response: If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison

center/doctor if you feel unwell. If eye irritation persists: Get medical advice/attention. In case of fire: Use appropriate media to extinguish.

Storage: Store in a well-ventilated place. Keep container tightly closed. Store locked up.

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

Hazards not otherwise classified (HNOC): Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.

Supplemental information: 99.1% of the mixture consists of components of unknown acute hazards to the aquatic environment. 99.1% of the mixture consist of components of unknown long-term hazards to the aquatic environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

<u>Chemical Name</u>	<u>CAS No.</u>	<u>%</u>
2-PROPANONE (ACETONE)	67-64-1	90-100
Other components below reportable levels*		< 1

*Designate that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

Inhalation: Move to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or physician if you feel unwell.

Skin contact: Remove contaminated clothing immediately. Rinse skin with water/shower. Get medical attention if irritation develops and persists.

Eye contact: Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develop and persists.

Ingestion: Rinse mouth. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed: May cause drowsiness and dizziness, headache, nausea, vomiting, or severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Indication of immediate medical attention and special treatment needed: Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

General information: Take off all contaminated clothing immediately. Ensure that medical personnel are aware of the materials involved and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Water fog. Alcohol resistant foam. Carbon dioxide (CO₂). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

Unsuitable extinguishing media: Do not use water jet as an extinguisher as this will spread the fire.

Specific hazards arising from the chemical: Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may

significantly increase by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Firefighting equipment/instructions: In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

Specific methods: Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards: Highly flammable liquid and vapor.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures: Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged container or spilled material unless wearing appropriate protective clothing. Ventilate closed space before entering them. Use appropriate containment to avoid environmental contamination. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. Local authorities should be advised if significant spillages cannot be contained. For personal protection see section 8 of the SDS.

Methods and materials for containment and cleaning up: Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. This product is miscible in water. Large spills: Stop the flow of material if this is without risk. Dike the spilled material where possible. Use a non-combustible material like vermiculite, dry sand, or earth to soak up product and place into containers for later disposal. Following product recovery, flush area with water. Small spills: Absorb with earth, sand, or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions: Avoid discharge into drains, water courses, or onto the ground. Use appropriate containment to avoid environmental contamination.

7. HANDLING AND STORAGE

Precautions for safe handling: Do not handle, store, or open near an open flame, sources of heat or source of ignition. Protect material from direct sunlight. When using do not smoke. Explosion-proof general and local exhaust ventilation. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reaction with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Take precautionary measure against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid prolonged exposure. Avoid contact with eyes. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities: Store locked up. Keep away from heat, sparks, and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Eliminate sources of ignition. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of SDS).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLB or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

<u>Components</u>	<u>Type</u>	<u>Value</u>
2-PROPANONE (ACETONE) (CAS 67-64-1)	PEL	2400 mg/m ³ 1000 ppm

US ACGIH Threshold Limit Values

<u>Components</u>	<u>Type</u>	<u>Value</u>
2-PROPANONE (ACETONE) (CAS 67-64-1)	STEL	500 ppm
	TWA	250 ppm

US NIOSH: Pocket Guide to Chemical Hazards

<u>Components</u>	<u>Type</u>	<u>Value</u>
2-PROPANONE (ACETONE) (CAS 67-64-1)	TWA	590 mg/m ³ 250 ppm

Biological limit values

ACGIH Biological Exposure Indices

<u>Components</u>	<u>Value</u>	<u>Determinant</u>	<u>Specimen</u>
2-PROPANONE (ACETONE) (CAS 67-64-1)	25 mg/l	Acetone	Urine

Appropriate engineering controls: Good general ventilation should be used (typically 10 air changes per hour). Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.

Individual protection measures, such as personal protective equipment

Eye/face protection: Wear safety glasses with side shields (or goggles).

Skin protection – hand: Wear appropriate chemical resistant gloves.

Skin protection – other: Wear appropriate chemical resistant clothing.

Respiratory protection: Chemical respirator with organic vapor cartridge and full facepiece.

Thermal hazards: Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations: Observe any medical surveillance requirements. When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid

Odor: Acetone

pH: Not available

Initial boiling point & range: 132.89°F (56.05°C) est

Evaporation rate: Not available

Flammability limit-lower %: 2.6% est

Color: Colorless

Odor threshold: Not available

Melting/freezing point: -138.46°F (-94.7° C) est

Flash point: -4.0°F (-20.0°C) est

Flammability (solid, gas): Not available

Flammability limit-upper %: 12.8% est

Explosive limit-lower %: Not available
Vapor pressure: 30.6 kPa @ 25°C
Relative density: Not available
Partition coefficient (n-octanol/water): Not available
Decomposition temperature: Not available
Density: 0.79 g/cm³
Flammability class: Combustible 1B est
Specific gravity: 0.79

Explosive limit-upper %: Not available
Vapor density: Not available
Solubility (water): Miscible
Auto-ignition temperature: 869°F (465°C) est
Viscosity: 0.3 cP
Explosive properties: Not explosive
Oxidizing properties: Not oxidizing
VOC: 0 g/l (exempt solvent)

10. STABILITY AND REACTIVITY

Reactivity: The product is stable and non-reactive under normal condition of use, storage, and transport.

Chemical stability: Material is stable under normal conditions.

Possibility of hazardous reactions: Hazardous polymerization does not occur.

Conditions to avoid: Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. Avoid temperature exceeding the flash point. Contact with incompatible materials.

Incompatible materials: Acids. Strong oxidizing agents.

Hazardous decomposition products: No hazardous decomposition products are known.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation: May cause drowsiness and dizziness, headache, nausea, vomiting. Prolonged inhalation may be harmful.

Skin contact: No adverse effects due to skin contact are expected.

Eye contact: Causes serious eye irritation.

Ingestion: Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical, and toxicological characteristics: May cause drowsiness and dizziness, headache, nausea, vomiting, severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Information on toxicological effects

Acute toxicity

<u>Components</u>	<u>Species</u>	<u>Test Results</u>
2-PROPANONE (ACETONE) (CAS 67-64-1)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	20000 mg/kg
Inhalation		
LC50	Rat	50.1 mg/l, 8 hours
Oral		
LD50	Rat	5800 mg/kg

Skin corrosion/irritation: Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation: Causes serious eye irritation.

Respiratory or skin sensitization

Respiratory sensitization: Not a respiratory sensitizer.

Skin sensitization: Not expected to cause skin sensitization.

Germ cell mutagenicity: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity: May cause cancer.

IARC Monographs. Overall Evaluation of Carcinogenicity: Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052): Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens: Not listed.

Reproductive toxicity: This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity – single exposure: May cause drowsiness and dizziness.

Specific target organ toxicity – repeated exposure: Not classified.

Aspiration hazard: Not an aspiration hazard.

Chronic effects: Prolonged inhalation may be harmful.

12. ECOLOGICAL INFORMATION (non-mandatory)

Ecotoxicity: The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

<u>Product</u>	<u>Species</u>	<u>Test Results</u>
Bonding Agent		
<u>Aquatic</u>		
Crustacea EC50	Daphnia	1688.3506 mg/l, 48 hrs estimated
Fish LC50	Fish	8511.8486, 96 hrs estimated

<u>Components</u>	<u>Species</u>	<u>Test Results</u>
2-PROPANONE (ACETONE) (CAS 67-64-1)		
<u>Aquatic</u>		
Crustacea EC50	Water flea (Daphnia magna)	102940 - 17704 mg/l, 48 hrs
Fish LC50	Rainbow trout, donaidson (Oncorhynchus mykiss)	4740 - 6330 mg/l, 96 hrs

Persistence and degradability: No data is available on the degradability of any ingredients in the mixture.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

2-PROPANONE (ACETONE) (CAS 67-64-1): -0.24

Mobility in soil: No data available.

Other adverse effects: No other adverse environmental effect (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. DISPOSAL CONSIDERATIONS (non-mandatory)

Disposal instructions: Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the material under controlled conditions in an approved incinerator. Do not incinerate sealed containers. If discarded, this product is considered a RCRA ignitable waste, D001. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations: Dispose in accordance with all applicable regulations.

Hazardous waste code: D001: Waste flammable material with a flash point <140°F. Waste code should be assigned in discussion between user, producer, and waste disposal company.

Waste from residues / unused products: Dispose of in accordance with local regulations. Empty containers or liner may retain some product residues. This material and its container must be disposed of in a safe manner (see Disposal instructions).

Contaminated packaging: Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty container should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION (non-mandatory)

DOT

UN number: UN1090

UN proper shipping name: Acetone, solution (2-PROPANONE (ACETONE) RQ = 5045 lbs)

Transport hazard classes

Class: 3

Subsidiary risk: -

Label: 3

Packing group: II

Special precautions for user: Read safety instructions, SDS, and emergency procedures before handling.

Special provisions: IB2, T4, TP1

Packaging exceptions: 150

Packaging non bulk: 202

Packaging bulk: 242

IATA

UN number: UN1090

UN proper shipping name: Acetone, solution (2-PROPANONE (ACETONE)

Transport hazard classes

Class: 3

Subsidiary risk: -

Packing group: III

Environmental hazards: No

ERG Code: 3H

Special precautions for user: Read safety instructions, SDS and emergency procedures before handling.

Other information

Passenger and cargo aircraft: Allowed with restrictions.

Cargo aircraft only: Allowed with restrictions.

IMDG

US number: UN1090

UN proper shipping name: Acetone, solution (2-PROPANONE (ACETONE)

Transport hazard classes

Class: 3

Subsidiary risk: -

Packing group: III

Environmental hazards

Marine pollutant: No

EmS: F-E, S-D

Special precautions for user: Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPO 73/78 and the IBC Code: Not established.

DOT



IATA; IMDG



15. REGULATORY INFORMATION (non-mandatory)

US federal regulations: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D): Not regulated.

CERLA Hazardous Substance List (40 CFR 302.4): 2-PROPANONE (ACETONE) (CAS 67-64-1) Listed

SARA 304 Emergency release notification: Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): Not regulated.

Superfund Amendment and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance: Not listed.

SARA 311/312 Hazardous chemical: Yes

Classified hazard categories: Flammable (gases, aerosols, liquids, or solids). Serious eye damage or eye irritation. Specific target organ toxicity (single or repeated exposure). Hazard not otherwise classified (HNOC).

SARA 313 (TRI reporting): Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List: Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130): Not regulated.

Safe Drinking Water Act (SDWA): Not regulated.

US state regulations

California Proposition 65: Warning: California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65). This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

US California Candidate Chemicals List. Safer Consumer Products Regulation (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

2-PROPANONE (ACETONE) (CAS 67-64-1)

Volatile organic compounds (VOC) regulations

EPA Architectural coatings (40 CFR 59, Subpt. D): Compliant

International Inventories

Country or region	Inventory Name	On Inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	No
US & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*"Yes" indicates that all components of this product comply with the inventory requirements by the governing countries. "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country.

16. OTHER INFORMATION

This information provided on this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designated only as a guide for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.