

SAFETY DATA SHEET

According to OSHA Hazard Communication Standard — 29 CFR 1910.1200

TRADE SECRET FORMULATION — CONFIDENTIAL

SECTION 1 — IDENTIFICATION

Product Name	OmniLayer Bed Adhesive
Product Code	OL-0001
Revision Date	2026-03-24
Version	V-3
Recommended Use	Universal 3D printing bed adhesive. Improves first-layer adhesion and reduces warping for PLA, PETG, ABS, ASA, PC, TPU, and carbon-fiber-reinforced filaments.
Manufacturer	3Dreanimation LLC 2942 N 24th St, Suite 115, Tucson, AZ 85016 (520) 244-8720 support@3dreanimation.com www.3dreanimation.com
Emergency Contact	(520) 244-8720 — available during normal business hours

SECTION 2 — HAZARD IDENTIFICATION

GHS / OSHA Classification (29 CFR 1910.1200)

Flammable Liquid — Category 2
 Eye Irritation — Category 2A
 Specific Target Organ Toxicity, Single Exposure — Category 3 (Narcotic Effects)

SIGNAL WORD
DANGER

Hazard Statements

H225 Highly flammable liquid and vapor
 H319 Causes serious eye irritation
 H336 May cause drowsiness or dizziness

Prevention	Response / Storage / Disposal
<p>P210 Keep away from heat, sparks, open flames, and hot surfaces.</p> <p>P233 Keep container tightly closed.</p> <p>P240 Ground/bond container and receiving equipment.</p> <p>P241 Use explosion-proof equipment.</p> <p>P242 Use only non-sparking tools.</p> <p>P243 Take precautionary measures against static discharge.</p> <p>P261 Avoid breathing vapors.</p> <p>P264 Wash hands thoroughly after handling.</p> <p>P271 Use only outdoors or in a well-ventilated area.</p> <p>P280 Wear protective eye equipment.</p>	<p>P303+P361+P353 IF ON SKIN (or hair): Remove contaminated clothing immediately; rinse skin with water.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes; remove contact lenses if present and easy to do; continue rinsing.</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.</p> <p>P370+P378 In case of fire: Use alcohol-resistant foam, dry chemical, or CO₂.</p> <p>P403+P235 Store in a cool, well-ventilated place.</p> <p>P501 Dispose of contents and container in accordance with local regulations.</p>

SECTION 3 — COMPOSITION / INFORMATION ON INGREDIENTS

TRADE SECRET CLAIM — This product is a proprietary mixture. Specific ingredient concentrations are withheld as a trade secret pursuant to OSHA 29 CFR 1910.1200(i). The manufacturer will provide confidential concentration data to a treating physician upon written request where a medical emergency warrants such disclosure. All health hazards associated with this mixture are fully disclosed herein in compliance with applicable law.

Chemical / Component	CAS Number	Concentration Range	Hazard Classification
Isopropyl Alcohol (2-Propanol)	67-63-0	50 – 90%	Flammable Liq. Cat. 2; Eye Irrit. 2A; STOT SE 3
Polyvinyl Acetate (PVA) Emulsion	9003-20-7	1 – 15%	Not classified as hazardous
Polyvinylpyrrolidone (PVP-40)	9003-39-8	< 10%	Not classified as hazardous
Water	7732-18-5	Balance	Not classified as hazardous

Note: Specific percentages are withheld to protect proprietary formulation. Concentration ranges represent the full possible spread across all product lots. All hazards are fully disclosed per OSHA 29 CFR 1910.1200.

SECTION 4 — FIRST AID MEASURES

Route	First Aid Instructions
Inhalation	Remove person to fresh air and keep at rest in a position comfortable for breathing. Administer supplemental oxygen if available. Seek medical attention if symptoms (dizziness, headache) persist.
Skin Contact	Immediately wash affected area with soap and water for at least 15 minutes. Remove contaminated clothing and laundry before reuse. Seek medical attention if irritation develops or persists.
Eye Contact	Immediately flush eyes with large amounts of water for at least 15 minutes, occasionally lifting upper and lower eyelids. Remove contact lenses if present and easy to do so. Seek immediate medical attention if irritation persists.
Ingestion	Rinse mouth thoroughly with water. Do NOT induce vomiting. Give water to drink if person is conscious. Seek medical attention immediately. Never give anything by mouth to an unconscious person.
Key Symptoms	Eye irritation; dizziness or drowsiness from vapor inhalation; mild skin irritation with prolonged contact.
Medical Notes	No specific antidote. Treat symptomatically. Provide SDS and product information to treating physician. Formulation details available to medical professionals upon written request.

SECTION 5 — FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Alcohol-resistant foam, dry chemical (ABC powder), carbon dioxide (CO ₂). Apply from a safe distance.
Unsuitable Extinguishing Media	Straight water stream — may scatter burning liquid and spread fire.
Specific Hazards	Vapors are heavier than air and may travel to distant ignition sources and flash back. Vapors form explosive mixtures with air (LEL 2.0% / UEL 12.7% v/v). Closed containers may rupture when exposed to heat.
Hazardous Combustion Products	Carbon monoxide (CO), carbon dioxide (CO ₂), and uncharacterized low-molecular-weight organic vapors.
Protective Equipment for Firefighters	Full protective clothing and self-contained breathing apparatus (SCBA) operated in positive-pressure mode. Cool fire-exposed containers with water spray from a safe distance.

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Personal Precautions	Eliminate all ignition sources (flames, sparks, electrical equipment). Ensure adequate ventilation. Avoid breathing vapors. Wear appropriate PPE (see Section 8).
Environmental Precautions	Prevent entry into sewers, waterways, or soil. Notify local authorities if a significant release enters drainage systems.
Small Spills (< 1 L)	Absorb with inert material (sand, vermiculite, dry earth). Collect in a sealed, labeled container and dispose in accordance with local regulations.
Large Spills (≥ 1 L)	Evacuate non-essential personnel. Eliminate all ignition sources. Use non-sparking tools to contain spill. Absorb or pump to recovery container. Thoroughly ventilate area. Dispose per Section 13.
Decontamination	Flush contaminated surfaces with water. Collect rinse water for proper disposal.

SECTION 7 — HANDLING AND STORAGE

General Handling	Keep away from heat, open flames, sparks, and static electricity. Use in well-ventilated areas or outdoors. Avoid prolonged inhalation of vapors and contact with eyes.
Static Precautions	Ground and bond all containers and receiving equipment. Use non-sparking, anti-static tools. Take precautions against electrostatic discharge during transfer operations.
Hygiene	Wash hands thoroughly after handling. Do not eat, drink, or smoke in areas where product is used. Remove contaminated clothing before entering eating or break areas.
Storage Conditions	Store in tightly closed original containers in a cool (< 25°C / 77°F), dry, well-ventilated area. Keep away from direct sunlight, heat sources, and open flames.
Incompatible Materials	Keep away from strong oxidizers, acids, peroxides, and reactive metals (see Section 10).
Container Integrity	Do not puncture, cut, or weld containers. Use only approved containers for transfer. Ensure containers are clearly labeled at all times.

SECTION 8 — EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical	OSHA PEL	ACGIH TLV	NIOSH REL
Isopropyl Alcohol (67-63-0)	TWA 400 ppm / STEL 500 ppm	TWA 200 ppm / STEL 400 ppm	TWA 400 ppm / STEL 500 ppm
Water (7732-18-5)	Not established	Not established	Not established
PVA / PVP (polymers)	Not established	Not established	Not established

PPE Category	Requirement
Eye / Face	Safety glasses with side shields or chemical splash goggles. Face shield recommended for large-volume transfer or overhead operations.
Skin / Hands	Chemical-resistant gloves (nitrile or neoprene) recommended for prolonged or repeated skin contact. Solvent-resistant apron or lab coat for splash risk.
Respiratory	Not required under normal use with adequate ventilation. If exposure limits may be exceeded, use a NIOSH-approved air-purifying respirator with an organic vapor cartridge (OV/P100).
Engineering Controls	Use in well-ventilated areas or outdoors. Local exhaust ventilation recommended for large-volume use. Maintain vapor concentrations below occupational exposure limits.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Property	Value / Description
Appearance	Dark purple liquid, homogeneous
Odor	Characteristic isopropyl alcohol (alcohol-like)
Physical State	Liquid at ambient conditions
pH	~7 (neutral)
Flash Point	~12°C (54°F) — IPA-dominant (Tag closed cup, ASTM D56)
Boiling Point	~82°C (180°F)
Vapor Pressure	~40 mmHg @ 20°C (68°F)
Vapor Density (air = 1)	>1 — vapors are heavier than air and may accumulate at floor level
Evaporation Rate	Fast (relative to n-butyl acetate = 1)
Solubility in Water	Completely miscible
VOC Content	50 – 90% (isopropyl alcohol dominant)
Viscosity	Low (water-like)
Explosive Limits (v/v)	LEL: 2.0% UEL: 12.7%
Density / Specific Gravity	~0.87 g/mL @ 20°C
Partition Coefficient (log Kow)	IPA: 0.05 — not expected to bioaccumulate

SECTION 10 — STABILITY AND REACTIVITY

Reactivity	Highly flammable liquid and vapor. No self-reactive or pyrophoric properties.
Chemical Stability	Stable under recommended storage and handling conditions.
Conditions to Avoid	Heat, sparks, open flames, hot surfaces, direct sunlight, and static discharge.
Incompatible Materials	Strong oxidizing agents (e.g., hydrogen peroxide, chromic acid, perchlorates), strong acids, reactive metals (sodium, potassium), and acid chlorides.
Hazardous Decomposition Products	Upon combustion or thermal decomposition: carbon monoxide (CO), carbon dioxide (CO ₂), and low-molecular-weight organic vapors.
Hazardous Polymerization	Will not occur under normal storage or handling conditions.

SECTION 11 — TOXICOLOGICAL INFORMATION

Likely Routes of Exposure	Inhalation (vapor), eye contact, skin contact, incidental ingestion.
Acute Toxicity — Oral (IPA)	LD ₅₀ (rat, oral): ~5,045 mg/kg — low acute oral toxicity (GHS Not Classified).
Acute Toxicity — Dermal (IPA)	LD ₅₀ (rabbit, dermal): >12,800 mg/kg — not classified.
Acute Toxicity — Inhalation (IPA)	LC ₅₀ (rat, 4 h): ~72.6 mg/L — not classified for acute inhalation toxicity.
Skin Irritation	Mildly irritating with prolonged or repeated contact.
Eye Irritation	Causes serious eye irritation (Category 2A). Characterized by redness, tearing, and discomfort.
STOT — Single Exposure	Category 3 (Narcotic Effects): High vapor concentrations may cause dizziness, drowsiness, and headache.
Sensitization	Not known to cause skin or respiratory sensitization.
Carcinogenicity	IPA is not listed as a carcinogen by IARC, NTP, OSHA, or ACGIH. No components are classified as carcinogenic.
Reproductive Toxicity	Not classified. No data indicating reproductive or developmental effects at expected occupational exposures.
Mutagenicity	Not classified as mutagenic based on available data.

SECTION 12 — ECOLOGICAL INFORMATION

Aquatic Toxicity (IPA)	LC ₅₀ (fish, 96 h): ~9,640 mg/L — not classified as acutely toxic to aquatic organisms at expected concentrations.
Persistence / Biodegradability	Isopropyl alcohol is readily biodegradable under aerobic conditions (OECD 301). Not expected to persist in the environment.
Bioaccumulation Potential	Log Kow = 0.05 for IPA — negligible bioaccumulation potential.
Mobility in Soil	Highly mobile in soil; may leach into groundwater if released in significant quantities. High vapor pressure contributes to evaporation.
Other Adverse Effects	Avoid large releases to waterways. May deplete dissolved oxygen in aquatic environments at high concentrations.

SECTION 13 — DISPOSAL CONSIDERATIONS

Waste Disposal Method	Dispose of contents and container in accordance with applicable federal, state, and local regulations. This product may be classified as a flammable hazardous waste under RCRA (U220 — Isopropyl alcohol).
Container Disposal	Empty containers may retain residual product and vapors. Do not cut, puncture, or weld empty containers. Dispose via a licensed hazardous waste contractor.
Prohibited Disposal	Do not pour down drains, sewers, or into waterways. Do not dispose of by incineration unless in a facility equipped to handle flammable vapors.
Regulatory Reference	Consult 40 CFR Parts 261–268 (RCRA) and applicable state environmental agency regulations. Verify local wastewater discharge limits before any drain disposal.

SECTION 14 — TRANSPORT INFORMATION

Parameter	DOT (49 CFR)	IATA (Air)	IMDG (Sea)
UN Number	UN 1219	UN 1219	UN 1219
Proper Shipping Name	Isopropanol Solution	Isopropanol Solution	Isopropanol Solution
Hazard Class	3 — Flammable Liquid	3 — Flammable Liquid	3 — Flammable Liquid
Packing Group	II	II	II
ERG Guide Number	129	—	—
Marine Pollutant	No	N/A	No
Regulated	Yes	Yes	Yes

Note: Transport classification is based on isopropanol content (≥50%). Verify applicable quantity exemptions, packaging requirements, and carrier regulations prior to shipment.

SECTION 15 — REGULATORY INFORMATION

OSHA Hazard Communication (29 CFR 1910.1200)	This product is classified as a hazardous chemical. An SDS and proper container labeling are required.
TSCA (Toxic Substances Control Act)	All components are listed on the TSCA Chemical Substance Inventory (40 CFR § 720).
CERCLA / SARA Title III	Isopropyl alcohol is not listed as a CERCLA hazardous substance at this time. Not reportable under SARA 302/304/313.
RCRA	May be classified as a flammable hazardous waste (U220) upon disposal. Refer to Section 13.
California Proposition 65 (State Regulation)	No components of this product are listed as California Proposition 65 substances.
Carcinogenicity Listings	No components are listed as carcinogens by IARC, NTP, or OSHA.
Trade Secret Status	Formulation concentrations are claimed as trade secret per OSHA 29

	CFR 1910.1200(i). Emergency disclosure procedures are established and on file.
--	--

SECTION 16 — OTHER INFORMATION

Revision Date	2026-03-24
Version	V-3
Previous Version Date	2026-01-07 (V-2)
Prepared By	3Dreanimation LLC — EHS / Regulatory Affairs
Key Changes in V-3	Updated physical properties table; clarified trade secret disclosure procedure; revised transport table; added ACGIH TLV column; corrected typographical errors throughout.
Training Recommendation	Personnel handling this product should receive training on safe handling of flammable liquids per OSHA 29 CFR 1910.1200 and applicable facility SOP requirements.

Abbreviations Used in This Document	
ACGIH — American Conference of Governmental Industrial Hygienists CAS — Chemical Abstracts Service CFR — Code of Federal Regulations DOT — U.S. Department of Transportation GHS — Globally Harmonized System IARC — International Agency for Research on Cancer IATA — International Air Transport Association IMDG — International Maritime Dangerous Goods LEL — Lower Explosive Limit NIOSH — National Institute for Occupational Safety and Health NTP — National Toxicology Program OSHA — Occupational Safety and Health Administration PEL — Permissible Exposure Limit PPE — Personal Protective Equipment RCRA — Resource Conservation and Recovery Act SARA — Superfund Amendments and Reauthorization Act SCBA — Self-Contained Breathing Apparatus SDS — Safety Data Sheet STOT SE — Specific Target Organ Toxicity, Single Exposure TLV — Threshold Limit Value TSCA — Toxic Substances Control Act TWA — Time-Weighted Average UEL — Upper Explosive Limit VOC — Volatile Organic Compound	

Disclaimer: The information in this Safety Data Sheet is believed to be accurate as of the revision date and is provided in good faith. It does not constitute a warranty of any kind, expressed or implied. 3Dreanimation LLC shall not be liable for any damage resulting from handling or from contact with the product described herein. Users should satisfy themselves that they have all current information necessary for the safe use of this product.