

Manufacturer:

ÅngströmBond

Product Name:

ÅngströmBond AB9088LV Plastic Bonding UV Cure Adhesive (3cc)

Manufacturer Part Number:

AB9088LV-3CC

Click here for more details on the AngströmBond AB9088LV Plastic Bonding UV Cure Adhesive (3cc)

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Advanced Polymers for High Tech Applications SDS # AB 9088LV

Safety Data Sheet

according to HazCom 2012

SDS #: AB 9088LV

Issue Date: 9/18/2016 Revision Date: 3/18/2020

Section 1: Identification

GHS Product Identifier/Name ÅngstromBond® AB 9088LV

Other means of identification

AB 9088LV Product Code Other means of identification Not available

Recommended use of the chemical and restrictions on use Identified Uses Adhesive

Details of the supplier of the Safety Data Sheet

Supplier Address

Fiber Optic Center, Inc.

23 Centre Street

New Bedford, MA 02740-6322 USA

Tel: 1-508-992-6464 Fax: 1-508-991-8876

Emergency Telephone CHEMTREC 1-800-424-9300 (24 hrs)

For product emergencies involving spill, leak, fire exposure or accident please contact CHEMTREC.

For all other inquires please contact Fiber Optic Center, Inc.TM at 1-800-473-4237

Section 2: Hazard(s) Identification

Emergency Overview:

Physical State- Liquid Odor- Characteristic Color- Colorless Appearance- Transparent

Classification of the Substance or mixture:

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute Toxicity – Oral Axute Toxicity – Inhalation (Gases) Skin corrosion/irritation Category 4 Category 4 Category 2 Serious eye damage/eye irritation Category 1 Skin sensitization Category 1A Reproductive toxicity Category 2 Specific target organ toxicity (single exposure)

Target Organ Effects Respiratory system, EYES, Skin.

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Section 2: Hazard(s) Identification

Continued

<u>GHS Label Elements:</u>
This product is classified and labeled according to the Globally Harmonized System (GHS).

Hazard Pictograms:







Signal word:

DANGER

Hazard Statements:

H302 - Harmful if swallowed

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H318 - Causes serious eye damage

H332 - Harmful if inhaled

H335 - May cause respiratory irritation

H361 - Suspected of damaging fertility or the unborn child

Precautionary statements:

Prevention:

Do not handle until all safety precautions have been read and understood

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

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

Use only outdoors or in a well-ventilated area

Wear protective gloves/protective clothing/eye protection/face protection

Response:

IF ON SKIN: Wash with plenty of soap and water, Take off contaminated clothing and wash before reuse, If skin irritation or rash occurs: Get medical advice/attention.

IF IN EYES: Remove contact lens and rinse immediately with plenty of water, also under the eyelids for at least 15 minutes

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell, Rinse mouth Storage:

Store in a well-ventilated place. Keep container tightly closed Disposal:

Dispose of contents/container to an approved waste disposal plant.

Other Information: Unknown acute toxicity

0 % of the mixture consists of ingredient(s) of unknown toxicity

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Section 3: Composition / Information on Ingredients

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Chemical Name	CAS No.	%	Trade Secret	Classification (Reg.
				1272/2008)
N,N-Dimethylacrylamide	2680-03-7	10-24	*	Acute Tox. 3 (H301)
		-		Acute Tox. 3 (H311)
				Acute Tox. 3 (H331)
				Eye Dam. 1 (H318)
Isobornyl Methacrylate	Proprietary	10-24	*	STOT SE 3 (H335)
	- 1 7	-		Skin Irrit. 2 (H315)
				Eye Irrit. 2 (H319)
				Aquatic Chronic 3 (H412)
Acrylic Monomer	Proprietary	10-24	*	Acute Tox. 4 (H312)
•	- 1 7	-		Skin Irrit. 2 (H315)
				Eye Irrit. 2B (H320)
				Skin Sens. 1 (H317)
2-Hydroxyethyl methacrylate	868-77-9	4-9	*	Skin Irrit. 2 (H315)
		-		Eye Irrit. 2A (H319)
				Skin Sens. 1 (H317)
Acrylic acid	79-10-7	1-3	*	Flam. Liq. 3 (H226)
		-		Acute Tox. 4 (H302)
				Acute Tox. 4 (H312)
				Acute Tox. 4 (H332)
				Skin Corr. 1A (H314)
				STOT SE 3 (H335)
				Aquatic Acute 1 (H400)
Photoinitiator	Proprietary	1-3	*	Acute Tox. 4 (H302)
	,,			Aquatic Chronic 2 (H411)
Visible Photoinitiator	Proprietary	<1	*	Repr. 2 (H361f)
	' ' '		1	Aquatic Chronic 2 (H411)
Silane Coupling Agent	Proprietary	<1	*	Skin Sens. 1 (H317)

Remaining ingredients are not considered hazardous in accordance with the Globally Harmonized System (GHS) *The exact percentage (concentration) of composition has been withheld as a trade secret.

Section 4: First-Aid Measures

Description of first aid measures:

IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR EMERGENCY MEDICAL CARE.

Eye contact

Flush eyes with water for at least 15 minutes. Get medical attention if eye irritation develops or persists. Skin Contact

Wash off immediately with plenty of water, get medical attention if irritation develops and persists.

Inhalation

Remove to fresh air, if symptoms persist, call a physician.

Ingestion

If swallowed, Rinse mouth, Get medical attention.

Self-protection of the first aider

Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

Most important symptoms and effects, both acute and delayed

Main Symptoms: No information available.

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Section 4: First-Aid Measures

Continued

Indication of any immediate medical attention and special treatment needed

Note to physicians

Treat symptomatically.

Section 5: Fire-Fighting Measures

Extinguishing Media:

Suitable extinguishing media

Use CO2, dry chemical, or foam.

Unsuitable extinguishing media

Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), dense black smoke.

Hazardous combustion products

Hazardous decomposition products due to incomplete combustion.

Explosion data

Sensitivity to Mechanical Impact None
Sensitivity to Static Discharge None

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures:

Personal precautions

Ensure adequate ventilation, Wear protective gloves/clothing and eye/face protection.

Environmental precautions:

Environmental precautions

Do not allow material to contaminate ground water system. Try to prevent the material from entering drains or water courses, See Section 12 for additional Ecological Information, Local authorities should be advised if significant spillages cannot be contained.

Other Information

See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up:

Methods for containment

Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

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Section 7: Handling and Storage

Precautions for safe handling:

Advice on safe handling

Handle in accordance with good industrial hygiene and safety practice, ensure adequate ventilation, protect from light.

Conditions for safe storage, including any incompatibilities:

Technical measures and storage conditions

Keep container tightly closed in a dry and well-ventilated place, protect from light.

Incompatible products

Amines, Strong oxidizing agents, Strong acids, Strong bases, Oxygen scavengers, Thiosulfates.

Section 8: Exposure Controls / Personal Protection

Control Parameters:

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Acrylic Acid	TWA: 2 ppm S*	(vacated) TWA: 10 ppm (vacated) TWA: 30 mg/m ₃ S*	TWA: 2 ppm TWA: 6 mg/m ₃
		(vacated) 1 vvv. oo mg/mso	1 VVV. O Hig/His

ACGIH (American Conference of Governmental Industrial Hygienists)

TLV - Threshold Limit Value

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

PEL - Permissible Exposure Limits

NIOSH IDLH

Immediately Dangerous to Life or Health

Appropriate engineering controls:

Engineering Measures

Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.

Individual protection measures, such as personal protective equipment

Eye/face protection

Safety glasses with side-shields, if splashes are likely to occur, wear: Goggles.

Skin and body protection

Wear protective gloves and protective clothing.

Respiratory protection

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required, do not breathe vapors, mist or gas.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice, when using do not eat, drink or smoke, Wear suitable gloves and eye/face protection, Wash hands before breaks and at the end of workday, Regular cleaning of equipment, work area and clothing is recommended.

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Section 9: Physical and Chemical Properties

Information on basic physical and chemical properties:

Physical state Liquid Appearance Transparent Color Colorless Odor Characteristic

Odor threshold No information available

Property Values Remarks / • Method pH Melting point / freezing point No information available No information available Boiling point / boiling range Flash point No information available 101 °C / 213 °F Evaporation rate No information available No information available

Flammability (solid, gas) Flammability Limit in Air Upper flammability limit -

Lower flammability limit -

Vapor pressure Vapor density Specific Gravity Water Solubility Practically insoluble Solubility in other solvents

Partition coefficient: n-octanol/water Autoignition temperature No information available No information available Decomposition temperature No information available 450 cP

Dynamic viscosity Kinematic viscosity No information available Explosive properties No information available Oxidizing properties No information available

Other Information:

No information available No information available Softening point Molecular weight VOC Content (%) 2.00189999991562 No information available Density **Bulk density** No information available

Section 10: Stability and Reactivity

Reactivity:

No data available Chemical Stability:

Stable under normal conditions

Possibility of hazardous reactions:

None under normal processing Conditions to avoid:

Protect from light, heat, flames and sparks

Incompatible materials:

Amines, Strong oxidizing agents, Strong acids, Strong bases, Oxygen scavengers.

Hazardous decomposition products:

No decomposition if stored and applied as directed.

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Section 11: Toxicological Information

Information on toxicological effects:

Acute toxicity

Information on likely routes of exposure

Inhalation There is no data for this product Eye contact There is no data for this product Skin Contact There is no data for this product Ingestion There is no data for this product

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization May cause sensitization of susceptible persons

Mutagenic effects No information available.

Reproductive toxicity No information available.

Carcinogenicity Contains no ingredients above reportable quantities listed as a carcinogen.

STOT - single exposure

Target Organ Effects Respiratory system, EYES, Skin.

Aspiration hazard No information available.

Other adverse effects No information available.

Chronic toxicity Repeated contact may cause allergic reactions in very susceptible persons Avoid repeated exposure

Numerical measures of toxicity - Product Information

0 % of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 1229 mg/kg ATEmix (dermal) 2848 mg/kg ATEmix (inhalation-gas) 4080 ppm ATEmix (inhalation-dust/mist) 75 mg/l ATEmix (inhalation-vapor) 489 mg/l

Component Information

	···		
Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
N,N-Dimethylacrylamide	252 mg/kg (Rat)	907 mg/kg (Rabbit)	776 ppm (Rat) 1 h
Isobornyl Methacrylate	LD50 2400 mg/kg (Rat)	LD50 > 3000 mg/kg (Rabbit)	
Acrylate Monomer		LD50 > 1,000 mg/kg (Rabbit)	
2-Hydroxyethyl	= 5050 mg/kg (Rat)	> 3000 mg/kg (Rabbit)	
methacrylate			
Acrylic Acid	= 193 mg/kg (Rat)	= 280 µL/kg (Rabbit)	= 5300 mg/m3 (Rat) 2 h
-	= 33500 µg/kg (Rat)	= 295 mg/kg (Rabbit)	
Photinitiator	> 1700 mg/kg (Rat)	6929 mg/kg (Rat)	
Silane Coupling Agent	>5000 mg/kg (Rat)		

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Section 12: Ecological Information

Ecotoxicity:

0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment.

Acute aquatic toxicity

Product Information

Testing for acute and chronic aquatic effects determined no environmental classification is required.

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
N,N-Dimethylacrylamide		LC50 > 120 mg/L 96 h (Oncorhynchus mykiss)	EC50 > 120 mg/l 48 h (Daphnia magna)
Isobornyl Methacrylate	EbC50 0.9 mg/l ErC50 2.7 mg/l NOEC 0.3 mg/l	LC0 1.8 mg/l 96 h (Danio rerio) NOEC 1.0 mg/l (Danio rerio)	EC50 1.1 mg/l 48 h (Daphnia)
2-Hydroxyethyl methacrylate		LC50 = 227 mg/L 96 h (Pimephales promelas)	EC50 > 380 mg/l 48 h (Daphnia magna)
Acrylic Acid	EC50 0.04 mg/L 72 h (Desmodesmus subspicatus)	LC50 = 222 mg/L 96 h (Brachydanio rerio)	EC50 = 95 mg/L 48 h
Photoinitiator	EC50 195 mg/l 72 h (green algae)	LC50 160 mg/l 48 h (Leuciscus idus)	EC50 > 119 mg/l 48 h (Daphnia magna)
Visible Photoinitiator		LC50 = 10 mg/l 48 h (Oryzias latipes)	
Silane Coupling Agent	EC50 > 536,00 mg/L 72 h (Scenedesmus subspicatus)	LC50 > 1024,00 mg/l 96 h (Brachydanio rerio))	EC50 > 876,00 mg/l 48 h (Daphnia magna)

Persistence and degradability No information available.

Bioaccumulation

Component Information

Chemical Name	log Pow
Acrylic Acid	0.46
2-Hydroxyethyl methacrylate	0.47

Mobility in soil No product level data available.

Section 13: Disposal Considerations

Waste treatment methods:

Dispose of waste in compliance with local and national regulations.

Contaminated packaging

Dispose of in accordance with local regulations.

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Section 14: Transport Information

DOT Not regulated Not regulated IMDG/IMO Not regulated

Section 15: Regulatory Information

International Inventories:

TSCA Complies **AICS** Complies DSL/NDSL Complies **EINECS/ELINCS** Complies **ENCS** Complies **IECSC** Complies **KECL** Complies **NZIoC** Complies **PICCS** Complies TCSI Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

AICS - Australian Inventory of Chemical Substances

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

PICCS - Philippines Inventory of Chemicals and Chemical Substances

TCSI - Taiwan Chemical Substance Inventory

US Federal Regulations:

OSHA Regulatory Status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200) SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	SARA 313 - Threshold Values %
2-(2-ethoxyethoxy)ethyl acrylate	1.0
Acrylic Acid	1.0

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Section 15: Regulatory Information

continued

SARA 311/312 Hazard Categories

Acute health hazard Yes
Chronic Health Hazard Yes
Fire hazard No
Sudden release of pressure hazard No
Reactive Hazard No

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Acrylic Acid	5000 lb		RQ 5000 lb final RQ
			RQ 2270 kg final RQ

US State Regulations

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Acrylate Monomer	X		X
Acrylic Acid	X	X	X
Stabilizer	X	X	X
2-Propenoic acid, 2-methyl-	X	X	X

California Proposition 65

This product does not contain any Proposition 65 chemicals.

Section 16: Other Information

SDS Creation Date: 9/18/2016 SDS Revision Date: 3/18/2020

Reason for Revision: Update information for GHS format

For more information: phone: 1-800-473-4237, fax: 1-508-991-8876

Prepared by Fiber Optic Center, Inc.

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