

# Duro-Last® SB IV Adhesive

SECTION 1	PRODUCT AND COMPANY IDENTIFICATION
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**Product Name:** Duro-Last® SB IV Adhesive  
**Version:** 2  
**Identifier 1:** LA432M  
**Identifier 2:** Low VOC PVC Bonding Adhesive  
**Chemical Family:** Mixture  
**Product Use:** Low VOC PVC Membrane Bonding Adhesive

**Company Information:** Duro-Last®, Inc.  
 525 W Morley Dr.  
 Saginaw, MI 48601  
 Phone: (800) 248-0280  
 Internet Address: www.duro-last.com

**Emergency Phone Numbers:** INFOTRAC  
 1-800-535-5053 (US & Canada)  
 1-352-323-3500 (International)

SECTION 2	HAZARD(S) IDENTIFICATION
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**Hazard Classification:**

**Physical Hazards**  
 Flammable Liquids, Category 2

**Health Hazards**  
 Skin Irritation, Category 2  
 Eye Irritation, Category 2A  
 Reproductive Toxicity, Category 2  
 Target Organ Toxicity (Single Exposure), Category 3  
 Target Organ Toxicity (Repeated Exposure), Category 2  
 Aspiration Hazard, Category 1

**Environmental Hazards**  
 Acute Hazard to the Aquatic Environment, Category 2  
 Chronic Hazard to the Aquatic Environment, Category 3

**Pictogram(s):**



**Signal Word:** DANGER

**Hazard Statements:**

H225	- Highly flammable liquid and vapor.
H304	- May be fatal if swallowed and enters airways.
H315	- Causes skin irritation.
H319	- Causes serious eye irritation.
H335	- May cause respiratory irritation.
H336	- May cause drowsiness or dizziness.
H361	- Suspected of damaging fertility or the unborn child.
H373	- May cause damage to organs through prolonged or repeated exposure.

- H401 - Toxic to aquatic life.
- H412 - Harmful to aquatic life with long lasting effects.

**Precautionary Statements:**

**Prevention**

- P201 - Obtain special instructions before use.
- P202 - Do not handle until all safety precautions have been read and understood.
- P210 - Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
- P233 - Keep container tightly closed.
- P240 - Ground/bond container and receiving equipment.
- P241 - Use explosion-proof electrical/ventilating/lighting equipment.
- P242 - Use only non-sparking tools.
- P243 - Take precautionary measures against static discharge.
- P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
- P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
- P271 - Use only outdoors or in a well-ventilated area.
- P272 - Contaminated work clothing should not be allowed out of the workplace.
- P273 - Avoid release to the environment.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P284 - Wear respiratory protection.

**Response**

- P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
- P303+P361+P353 - IF ON SKIN (or Hair): Immediately remove/take off all contaminated clothing. Rinse skin with water/shower.
- P304+P340 - IF INHALED: Move to fresh air and keep at rest in a position comfortable for breathing.
- P305+P351+P338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses, if present, and easy to do. Continue rinsing.
- P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
- P314 - Get medical advice/attention if you feel unwell.
- P321 - Specific treatment (see Section 4).
- P331 - Do NOT induce vomiting.
- P332+P313 - If skin irritation occurs: Get medical advice/attention.
- P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
- P337+P313 - If eye irritation persists: Get medical advice/attention.
- P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
- P362 - Take off contaminated clothing and wash before reuse.
- P370+P378 - In case of fire: Use appropriate media to extinguish.
- P391 - Collect spillage.

**Storage**

- P403+P233+P235 - Store in a well-ventilated place. Keep container tightly closed. Keep cool.
- P405 - Store locked up.

**Disposal**

- P501 - Dispose of contents/container according to local, state, federal, and international regulations.

**Emergency Overview:****Physical Appearance:** Amber.**Immediate Concerns:** DANGER! Extremely flammable liquid and vapor. Vapor may cause flash fire and explosion. Harmful or fatal if swallowed. Harmful if absorbed through the skin. Pulmonary aspiration hazard. After ingestion, may enter lungs and produce damage. High vapor concentrations may cause drowsiness. Can cause eye, skin and respiratory tract irritation.**SECTION 3****COMPOSITION/INFORMATION ON INGREDIENTS****Hazardous Ingredients**

Chemical Name	CAS Number	Concentration (%)
Acetone	67-64-1	55 – 75%
Methyl Ethyl Ketone	78-93-3	3 – 10%
Toluene	108-88-3	1 – 5%
p-Chlorobenzotrifluoride	98-56-6	<1%

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, that are classified as hazardous to health or the environment and hence require reporting in this section.

**SECTION 4****FIRST-AID MEASURES****Inhalation:**

If affected:  
 Move to fresh air.  
 Restore breathing.  
 If not breathing, give artificial respiration or give oxygen by trained personnel.  
 Seek immediate medical attention.

**Skin Contact:**

Wash off with soap and plenty of water.  
 Remove contaminated clothing.  
 If symptoms develop or persist, get medical attention.  
 Wash or dispose of clothing before reuse.

**Eye Contact:**

Immediately flush eye(s) with plenty of water (at least 15-20 minutes).  
 Remove contact lenses, if present, and easy to do so.  
 Keep eye(s) wide open while rinsing.  
 Occasionally lift upper and lower eye lids.  
 Get immediate medical attention.

**Ingestion:**

Do NOT induce vomiting.  
 Keep person warm, quiet and get medical attention immediately.  
 If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration.  
 Aspiration of this material into the lungs due to vomiting can cause chemical pneumonitis which can be fatal.

**Most Important Symptoms and Effects, Both Acute and Delayed:**

**Eyes:** Liquid and vapor can severely irritate the eyes depending on type of exposure (splash, vapor) and exposure time.

**Skin:** Mild to moderate skin irritant.

**Skin Absorption:** May be absorbed through the skin and can contribute to overall exposure. Effects are similar to central nervous system (CNS) depression.

**Ingestion:** May result in CNS depression with symptoms such as headaches, nausea, vomiting, diarrhea, dizziness, incoordination and unconsciousness.

Aspiration of material into lungs may cause chemical pneumonitis which can be fatal.

- Inhalation:** High vapor concentrations may cause CNS depression with symptoms including light headedness, giddiness, nausea, drowsiness, headache, nose, throat and respiratory tract irritation, reduced appetite, confusion, and unconsciousness.
- Acute Toxicity:** High vapor concentrations may cause CNS depression with symptoms including light headedness, giddiness, nausea, drowsiness, headache, nose, throat and respiratory tract irritation, reduced appetite, confusion, and unconsciousness.
- Chronic Effects:** Damage to the nervous system of the extremities, peripheral neuropathy, with symptoms including numbness, tingling and weakness in the toes and fingers, sensory impairment to touch, pain, vibration and temperature, muscular weakness, blurred vision, coldness of extremities, loss of body weight and reflexes, and even paralysis. Frequent or prolonged contact may irritate the skin and cause a skin rash (dermatitis).

**SECTION 5**

**FIRE-FIGHTING MEASURES**

- Flammable Class:** Class IB
- General Hazard:** Flammable liquid and vapor.
- Suitable Extinguishing Media:** Foam, dry chemical, Carbon Dioxide, water spray or fog.
- Hazardous Combustion Products:** Carbon Monoxide, Carbon Dioxide, Aldehydes.
- Explosion Hazards:** Avoid fire, sparks, static electricity and hot surfaces. Liquid readily evaporates at room/ambient temperature. Vapors are invisible, flammable, heavier than air, and may accumulate in low areas and spread long distances. Distant ignition and flashback are possible.
- Special Protective Equipment for Firefighters:** In the event of fire, wear self-contained breathing apparatus with pressure-demand, full face piece SCBA (MSHA/NIOSH approved or equivalent) and full protective gear.
- Hazardous Decomposition Products:** Carbon Monoxide and Carbon Dioxide may form when heated to decomposition.

**SECTION 6**

**ACCIDENTAL RELEASE MEASURES**

- Small Spills:** Dike off the area to contain spill. Take precautions as necessary to prevent contamination of ground and surface waters. Soak up spills with absorbent material, such as sawdust or vermiculite, and sweep into closed containers for disposal. Do not flush to sewer. If area of spill is porous, remove as much contaminated earth and gravel, etc. as necessary and place in closed containers for disposal. Only allow access to those who are adequately trained, authorized, and wearing the appropriate personal protective equipment (PPE) to participate in spill response and clean-up.
- Large Spills:** Keep spectators away. Only allow access to those who are adequately trained, authorized, and wearing the appropriate personal protective equipment (PPE) to participate in spill response and clean-up. Ventilate the area by natural means or by explosion proof

mechanical means (i.e. fans). Eliminate all ignition sources (flames, hot surfaces, portable heaters and sources of electrical, static, or frictional sparks). Dike and contain spill with inert material (e.g. sand, earth, etc.). Transfer liquids to covered and labeled metal containers for disposal, or remove with inert absorbent. Use only non-sparking tools and appropriate PPE. Place absorbent materials used to dike off the spill in covered containers for disposal. Prevent contamination of sewers, streams, and groundwater from spilled material using absorbent material.

**Handling Precautions:** Use personal protective equipment.  
Deny access to unprotected persons.  
Avoid breathing dust/fumes/gas/mist/vapors/spray.

**SECTION 7**

**HANDLING AND STORAGE**

**General Procedures:** For professional or industrial use only.  
Follow label instructions.  
Keep out of the reach of children.  
Not for consumption.  
No smoking.  
Do not breathe vapors.  
Avoid contact with body.  
Turn off all pilot lights, flames, stoves, heaters, electric motors, welding equipment and other sources of ignition.  
Empty containers must not be washed and re-used for any purpose.  
Contact lens wearers must wear protective eye wear around chemical vapors and liquid.  
Wash hands thoroughly after handling.  
Flammable vapors may cause flash fire or ignite explosively.  
To prevent build-up of vapors, use adequate natural and/or mechanical ventilation (e.g. open all windows and doors to achieve cross ventilation).  
Containers may be hazardous when empty.  
Never use welding or cutting torch on or near container.  
Do not cut, drill, grind, or expose containers to heat, sparks, static electricity or other source of ignition.  
Explosion may occur causing injury or death.  
Avoid exceeding the given occupational exposure limits (see Section 8).

**Handling Precautions:** Use adequate ventilation and appropriate respiratory protection to avoid breathing vapors when cover is removed. Ground and bond all equipment when handling flammable solvent-borne material. Employee education and training in the safe handling of this product are required under the Federal OSHA Hazard Communication Standard. Follow standard hygiene measures when handling chemical products. Containers should be tightly closed to prevent contamination with foreign materials and moisture.

**Storage Requirements:** Keep container closed when not in use.  
Store in a dry, well-ventilated area and out of the sun.  
Store between 60°F (15.5°C) and 95°F (35°C).  
Observe label precautions.  
Store in accordance with local regulations.

## SECTION 8

## EXPOSURE CONTROLS/PERSONAL PROTECTION

## Exposure Limits

Component	CAS Number	Basis **	Value	Exposure Limit(s)* / Form of Exposure
Acetone	67-64-1	OSHA	TWA	1000 ppm
	67-64-1	OSHA	STEL	NL (not listed)
	67-64-1	ACGIH	TWA	500 ppm
	67-64-1	ACGIH	STEL	750 ppm
Methyl Ethyl Ketone	78-93-3	OSHA	TWA	200 ppm
	78-93-3	OSHA	STEL	NL (not listed)
	78-93-3	ACGIH	TWA	200 ppm
	78-93-3	ACGIH	STEL	300 ppm
Toluene	108-88-3	OSHA	TWA	200 ppm
	108-88-3	OSHA	STEL	300 ppm
	108-88-3	ACGIH	TWA	20 ppm
	108-88-3	ACGIH	STEL	NL (not listed)
p-Chlorobenzotrifluoride	98-56-6	OSHA	TWA/STEL	NL (not listed)
	98-56-6	ACGIH	TWA/STEL	NL (not listed)

\*The above mentioned values are in accordance with the legislation in effect at the date of the release of this Safety Data Sheet.

**\*\*Basis**

ACGIH. Threshold Limit Values (TLV)

OSHA P0. Table Z-1, Limit for Air Contaminant (1989 Vacated Values)

OSHA P1. Permissible Exposure Limits (PEL), Table Z-1, Limit for Air Contaminant

OSHA P2. Permissible Exposure Limits (PEL), Table Z-2

OSHA Z3. Table Z-3, Mineral Dust

**Engineering Measures:**

Provide sufficient explosion proof mechanical (general and/or local exhaust) ventilation or other engineering controls to keep the airborne concentrations of vapor or mists below the applicable workplace exposure limits. Use only in a well-ventilated area. Ground and bond all equipment.

**Personal Protective Equipment:****Respiratory Protection**

Use a properly fitted NIOSH approved air-purifying or air-fed respirator with an organic vapor cartridge or canister complying with an approved standard if a risk assessment indicates this is necessary.

Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known or any other circumstances where air purifying respirators may not provide adequate protection. A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

**Hand Protection**

Chemical resistant impervious gloves such as nitrile rubber, complying with an approved standard should be worn, if needed, to prevent repeated or prolonged skin contact.

**Eye and Face Protection**

Safety eyewear with side-shields complying with an approved standard should be used when a risk assessment indicates this is necessary. A face shield may be necessary if spraying the product.

**Skin and Body Protection**

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific workplace.

**Hygiene Measures**

Avoid contact with skin, eyes, and clothing.

Wash hands before breaks and immediately after handling the product.

Remove respiratory, and skin/eye protection only after vapors have been cleared from the area.

Remove contaminated clothing and protective equipment before entering eating areas.

Wash thoroughly after handling.

Follow good hygiene practices when handling this material.

**Other Use Precautions:**

Facilities storing or utilizing this material should be equipped or have access to an eyewash facility and safety shower.

**SECTION 9****PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical State:</b>	Liquid	<b>Evaporation Rate:</b>	> 1 (n-Butyl Acetate = 1)
<b>Color:</b>	Amber	<b>Density:</b>	7.081 lbs/Gal
<b>Percent Volatile:</b>	74.8%	<b>Specific Gravity:</b>	0.849
<b>Flash Point:</b>	1.4°F (-17°C)	<b>VOC:</b>	199.400 gr/L EPA Method 24 VOC
<b>Flammable Limits:</b>	1.0 to 12.8	<b>Photochemically Reactive Only VOC:</b>	53.0 gr/L
<b>Auto-Ignition Temperature:</b>	759°F to 997°F	<b>Pour Point:</b>	N/A
<b>Freezing Point:</b>	N/A	<b>Particle Size:</b>	N/A
<b>Melting Point:</b>	N/A	<b>Vapor Density:</b>	N/A
<b>Solubility in Water:</b>	Slight	<b>Vapor Pressure:</b>	N/A
<b>Viscosity:</b>	N/A	<b>Oxidizing Properties:</b>	N/A
<b>Odor:</b>	Solvent-like	<b>pH:</b>	N/A

**Comments:** 0.25 lbs. VHAP/lbs. Solid 6.2% by weight HAP

**Notes:** The upper and lower flammable limits are for Toluene, not for the adhesive as a whole. The adhesive is a water based product categorized as a combustible liquid.

**SECTION 10****STABILITY AND REACTIVITY**

<b>Hazardous Polymerization:</b>	No.
<b>Hazardous Decomposition Products:</b>	Carbon Monoxide and Carbon Dioxide may form when heated to decomposition.
<b>Chemical Stability:</b>	The product is chemically stable.
<b>Possibility of Hazardous Reactions:</b>	None expected.
<b>Incompatible Materials:</b>	Strong oxidizing materials, strong acids and strong bases.
<b>Conditions to Avoid:</b>	Avoid fire, sparks, static electricity, and hot surfaces.

## SECTION 11

## TOXICOLOGICAL INFORMATION

**Toxicity**

Hazardous Ingredient Name	Acute or Chronic?	Oral LD <sub>50</sub> (rat)	Dermal LD <sub>50</sub> (rabbit)	Inhalation LC <sub>50</sub> (rat)
Acetone	Acute	5,800 mg/kg	20,000 mg/kg	50,100 mg/cub m (8-hr dose)
Methyl Ethyl Ketone	Acute	2,300 to 3,500 mg/kg	>8,000 mg/kg	11,700 mg/L (4-hr dose)
Toluene	Acute	2,600 to 7,500 mg/kg	12,124 mg/kg	8,000 ppm (4-hr dose)
p-Chlorobenzotrifluoride	Acute	>6,800 mg/kg	>2,700 mg/kg	4,479 ppm (4-hr dose)

**Irritation:** Possible eye, nose, throat, and respiratory tract irritation.

**Sensitization:** Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

**Carcinogenicity:** Toluene has an IARC status of 3.

## SECTION 12

## ECOLOGICAL INFORMATION

**Environmental Data:** This product contains components that will normally float on water. These components may be harmful to aquatic organisms and could potentially cause long term adverse effects on the aquatic environment.

**Ecotoxicity:** Contains components that are potentially toxic to aquatic ecosystems, both of fresh and salt water.

**Bio-accumulation:** Contains components with the potential to bio-accumulate.

**Other Information:** Do not empty into drains; dispose of this material and its container in accordance with federal, state, and local regulations. Avoid dispersal of spilled material and runoff, and contact with soil, waterways, drains, and sewers.

## SECTION 13

## DISPOSAL CONSIDERATIONS

**Disposal Methods:** **Waste from Residues**  
Disposal of this product, solutions, and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any federal, state and local authority requirements.

**Contaminated Packaging**

Empty containers should be taken to an approved waste handling site for recycling or disposal in accordance with federal, state and local requirements.

## SECTION 14

## TRANSPORT INFORMATION

<b>DOT (Department of Transportation):</b>	<b>Proper Shipping Name:</b>	Adhesives
	<b>UN/NA Number:</b>	1133
	<b>Packing Group:</b>	II
	<b>NAERG:</b>	128
	<b>Marine Pollutant #1:</b>	None
	<b>Other Shipping Information:</b>	Contains (Toluene, Acetone)



## SECTION 15

## REGULATORY INFORMATION

<b>TSCA List:</b>	All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.
<b>CERCLA Reportable Quantity:</b>	This material contains the following materials with CERCLA RQ's:  Acetone (67-64-1): 5,000 lbs. Methyl Ethyl Ketone (78-93-3): 5,000 lbs. Toluene (108-88-3): 1,000 lbs.
<b>SARA 304 Reportable Quantity:</b>	This material does not contain any components with a section 304 EHS RQ.
<b>SARA 302:</b>	This material contains the following chemicals that are subject to the reporting requirements of SARA Title III, Section 302:  Toluene (108-88-3): 1,000 lbs.
<b>SARA 313:</b>	This material contains the following chemical components with known CAS numbers that have threshold (De Minimis) reporting levels established by SARA Title III, Section 313:  Methyl Ethyl Ketone (78-93-3): 3 – 10% Toluene (108-88-3): 1 – 5%
<b>Clean Air Act:</b>	This product contains the following hazardous air pollutant (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61):  Methyl Ethyl Ketone (78-93-3): 3 – 10% Toluene (108-88-3): 1 – 5%  This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).
<b>California Prop 65:</b>	<b>WARNING:</b> This product can expose you to chemicals including Toluene, which is known to the State of California to cause <a href="#">developmental or reproductive harm</a> and p-Chlorobenzotrifluoride, which is known to the State of California to cause <a href="#">cancer</a> . For more information, go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> .

## SECTION 16

## OTHER INFORMATION

<b>Previous Editions:</b>	First Published: 08/22/2018 Revised: 09/19/2019
<b>General Statements:</b>	Keep out of reach of children. For professional or industrial use only.
<b>Further Information:</b>	This SDS was prepared in accordance with OSHA regulatory standards for Toxic and Hazardous Substances: 29 CFR 1910.1200
<b>Disclaimer:</b>	To the best of our knowledge, the information contained herein is accurate. However Duro-Last®, Inc. does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be handled with care. Although Duro-Last®, Inc. has described herein all of the hazards to which we are currently aware; we cannot guarantee that these are the only hazards which exist.