Solvent-Grip® Plus

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

Product Name: Solvent-Grip® Plus
Version: 1
Identifier 1: Adhesive
Identifier 2: N/A
Product Type: Mixture
Product Use: PVC Membrane Bonding Adhesive

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

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

SECTION 2 HAZARD(S) IDENTIFICATION

Hazard Classification:

Physical Hazards
Gases Under Pressure: Liquefied Gas
Flammable Liquids, Category 1

Health Hazards
Serious Eye Damage/Eye Irritation, Category 2
Specific Target Organ Toxicity - Single Exposure, Category 3, Respiratory Tract Irritation

Pictogram(s):

Signal Word: DANGER

Hazard Statements:

H224	- Extremely flammable liquid and vapor.
H280	- Contains gas under pressure; may explode if heated.
H319	- Causes serious eye irritation.
H336	- May cause drowsiness or dizziness.

Precautionary Statements:

Prevention

P210	- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. 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.
P261	- Avoid breathing gas, mist, vapors, spray.

P264	- Wash clothing, hands, forearms and face thoroughly after handling.
P271	- Use only outdoors or in a well-ventilated area.
P280	- Wear eye protection, face protection, protective clothing, protective gloves.

Response

P303+P361+P353	- IF ON SKIN (or hair): Immediately take off all contaminated clothing. Rinse skin with water/shower
P304+P340	- IF INHALED: Move person to fresh air and keep comfortable for breathing.
P305+P351+P338	- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	- Call a doctor, a poison center if you feel unwell.
P337+P313	- If eye irritation persists: Get medical advice/attention.
P370+P378	- In case of fire: Use media other than water to extinguish.

Storage

P403+P233	- Store in a well-ventilated place. Keep container tightly closed.
P405	- Store locked up.
P410+P235	- Protect from sunlight. Keep cool.

Disposal

P501	- Dispose of contents/container to an approved waste disposal plant.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients

Chemical Name	CAS Number	Concentration (%)
Acetone	67-64-1	45.00 – 70.00
Dimethyl Ether	115-10-6	5.00 – 10.00
Carbon Dioxide (as compressed gas)	124-38-9	5.00 – 10.00

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

SECTION 4 FIRST-AID MEASURES

Eye Contact: Immediately flush eye(s) with plenty of water, occasionally lifting the upper and lower eyelids and continue to rinse for at least 20 minutes. Remove contact lenses, if present, and easy to do so. Get medical attention if irritation persists.

Inhalation: Move victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway.

Skin Contact: Flush contaminated skin with plenty of soap and water. Continue to rinse for at least 20 minutes. Get medical attention if irritation occurs.

Ingestion: Wash out mouth with water. Remove dentures if any. Do not induce vomiting without advice from a poison control center. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most Important Symptoms and Effects, Both Acute and Delayed:	Causes serious eye irritation. May cause: respiratory irritation, skin irritation, and gastrointestinal irritation.
Protection of First-Aiders:	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Show this Safety Data Sheet to the doctor in attendance.
Notes to Physician:	Treat symptomatically.

SECTION 5 FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:	Foam, dry powder, Carbon Dioxide, and water fog.
Unsuitable Extinguishing Media:	Caution: Use of water spray when fighting fire may cause the fire to spread.
Specific Hazards Arising from the Chemical:	**Fire Hazard** Extremely flammable liquid and vapor. **Explosion Hazard** 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. Under fire conditions closed containers may rupture or explode. **Reactivity Hazard** No dangerous reactions known under normal conditions of use.
Special Protective Equipment for Fire-Fighters:	As in any fire, wear a self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
Other Information:	This material is flammable and may be ignited by heat, sparks, or static electricity. Vapors may travel long distances along ground before igniting/flashing back to vapor source.

SECTION 6 ACCIDENTAL RELEASE MEASURES

General Measures:	Spill should be handled by trained cleaning personnel properly equipped with respiratory and eye protection. Evacuate area. Keep upwind. Ventilate area. Avoid vapor formation. Eliminate all ignition sources if safe to do so. Vapor may cause flash fires. Vapors are heavier than air and can travel long distances to ignition sources.
Environmental Precautions:	Prevent entry to sewers and public waters. Avoid release to the environment.
Containment and Cleanup:	SMALL SPILL: Dike area to contain spill. Take precautions as necessary to prevent contamination of ground and surface waters. Recover spilled material on absorbent, such as sawdust or vermiculite, and sweep into closed containers for disposal. After all visible traces, including ignitable vapors, have been removed, thoroughly wet vacuum the area. 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 those persons who are adequately trained, authorized, and wearing the required personal protective equipment (PPE) should participate in spill response and clean-up.

LARGE SPILL: Keep spectators away. Only those persons who are adequately trained, authorized and wearing the required personal protective equipment (PPE) should participate in spill response and clean-up. Ventilate the area by natural means or by explosion proof means (i.e. fans). Know and prepare for spill response before using or handling this product. 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). Transfer liquids to covered and labeled metal containers for recovery or disposal, or remove with inert absorbent. Use only non-sparking tools and appropriate PPE. Place absorbent diking materials in covered metal containers for disposal. Prevent contamination of sewers, streams, and groundwater with spilled material or used absorbent.

Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1940.120).

SECTION 7 HANDLING AND STORAGE

Handling Precautions: For professional or industrial use only. Follow label instructions. Keep out of 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 another source of ignition. Explosion may occur causing injury or death.

Storage Requirements: Keep container closed when not in use. Store in a cool, dry, well ventilated area away from sunlight. Isolate from oxidizers, heat, sparks, electrical equipment and open flame. Closed containers may explode if exposed to extreme heat.

Technical Measures: Avoid ignition sources. Ground/bond container and receiving equipment. Ensure adequate ventilation, especially in confined areas.

Incompatible Materials: Strong oxidizing agents. Strong acids. Strong bases.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits

Component	CAS Number	Basis**	Value	Exposure Limit(s)* / Form of Exposure
Acetone	67-64-1	ACGIH OEL	TWA	500 ppm
		ACGIH OEL	STEL	750 ppm
		OSHA PEL	TWA	2400 mg/m³; 1000 ppm
		OSHA PEL	STEL	2400 mg/m³ (The acetone STEL does not apply to the cellulose acetate fiber industry. It is in effect for all other sectors.)
		OSHA PEL	STEL	1000 ppm
		NIOSH	IDLH	2500 ppm (10% LEL)
		NIOSH REL	TWA	590 mg/m³; 250 ppm
Carbon Dioxide (as compressed gas)	124-38-9	ACGIH OEL	TWA	5000 ppm
		ACGIH OEL	STEL	30000 ppm

		OSHA PEL	TWA	9000 mg/m³; 5000 ppm
		OSHA PEL	IDLH	24000 mg/m³; 30000 ppm
		NIOSH IDLH	STEL	40000 ppm

*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)
NIOSH. Immediately Dangerous To Life or Health (IDLH) Values
OSHA P0. Table Z-1, Limit for Air Contaminant (1989 Vacated Values)
OSHA P1. Permissible Exposure Limits (PEL), Table Z-1, Limit for Air Contaminants
OSHA P2. Permissible Exposure Limits (PEL), Table Z-2, TWA's and Ceiling Concentrations
OSHA Z3. Table Z-3, Mineral Dust

Engineering Measures: Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof equipment with flammable materials. Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment:

Respiratory Protection
If exposure limits are exceeded or irritation is experienced, a NIOSH/MSHA approved respiratory protection should be worn.

Hand Protection
Chemically impervious gloves should be worn. Gloves should be classified under Standard EN 374 or ASTM F1296. Suggested glove materials are: Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, PVC or vinyl.

Eye Protection
Wear eye protection, including chemical splash goggles and a face shield when possibility exists for eye contact due to spraying liquid or airborne particles.

Skin and Body Protection
Wear long sleeves, and chemically impervious PPE/coveralls to minimize bodily exposure. Chemically impervious apron over lab coat and full coverage clothing should be worn.

Hygiene Measures
Handle in accordance with good industrial hygiene and safety practice.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid	**Density:**	7.25 lb/gal
Color:	Brown	**Oxidizing Properties:**	N/A
pH:	N/A	**Decomposition Temperature:**	N/A
Odor:	Solvent	**Solubility:**	N/A
Flash Point:	- 42°F (- 41°C)	**Explosive Properties:**	N/A
Boiling Point/Range:	- 42 – 31.1°F (41 – - 0.5°C)	**Evaporation Rate:**	N/A
VOC:	232.5 g/l EPA Method 24 VOC	**Freezing Point:**	N/A

SECTION 10 STABILITY AND REACTIVITY

Reactivity: No dangerous reactions known under normal conditions of use.

Chemical Stability: Stable under recommended handling and storage conditions (see Section 7).

Possibility of Hazardous Reactions: None under normal processing.

Conditions to Avoid: Heat, open flame, and ignition sources.

Incompatible Materials: Strong oxidizers. Strong acids. Strong bases.

Hazardous Decomposition Products: Carbon oxides (CO, CO2). Aldehydes.

SECTION 11 TOXICOLOGICAL INFORMATION

Toxicity

Hazardous Ingredient Name	CAS Number	Oral LD_{50}	Dermal LD_{50}	Inhalation LC_{50}
Acetone	67-64-1	5800 mg/kg (Rat)	> 15700 mg/kg (Rat & Rabbit)	50100 mg/m³ 8h
Dimethyl Ether	115-10-6	-	-	308.5 mg/L 4h
Carbon Dioxide (as compressed gas)	124-38-9	-	-	Not Classified

Symptoms/Effects: Causes serious eye irritation. May cause skin irritation. May cause respiratory irritation. May cause gastrointestinal irritation.

STOT – Single Exposure: May cause drowsiness or dizziness.

STOT – Repeated Exposure: Not classified.

SECTION 12 ECOLOGICAL INFORMATION

Toxicity: No information available.

Persistence and Degradability: No information available.

Bioaccumulation: No information available.

Other Adverse Effects: No information available.

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal Methods: Do not discharge to public wastewater systems without permit of pollution control authorities. No discharge to surface waters is allowed without an NPDES permit.

Contaminated Packaging: Dispose in a safe manner in accordance with local/national regulations. Do not allow the product to be released into the environment.

SECTION 14 TRANSPORT INFORMATION

Department of Transportation (DOT):

Transport Document Description: UN3501 Chemical under pressure, flammable, n.o.s. (contains Carbon Dioxide, Dimethyl Ether), 2.1

UN-No. UN3501

Proper Shipping Name:	Chemical under pressure, flammable, n.o.s.
Class:	2.1 – Class 2.1 – Flammable gas 49 CFR 173.115
Hazard Label:	
DOT Quantity Limitations Passenger Aircraft/Rail (49 CFR 173.27):	Forbidden
DOT Quantity Limitations Cargo Aircraft Only (49 CFR 175.75):	75 kg
DOT Vessel Stowage Location:	D - The material must be stowed "on deck only" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers or one passenger per each 3 m of overall vessel length, but the material is prohibited on passenger vessels in which the limiting number of passengers is exceeded.
DOT Vessel Stowage Other:	40 – Stow "clear of living quarters".
Emergency Response Guide (ERG) Number:	115
Other Information:	No supplementary information available.

Transportation by Sea (IMDG):

Transport Document Description:	UN 3501 CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S. (contains Carbon Dioxide, Dimethyl Ether), 2.1
UN-No.	3501
Proper Shipping Name:	CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S.
Class:	2 - Gases
Limited Quantities:	0

Air Transport (IATA):

Transport Document Description:	UN 3501 Chemical under pressure, flammable, n.o.s. (contains Carbon Dioxide, Dimethyl Ether), 2.1
UN-No.	3501
Proper Shipping Name:	Chemical under pressure, flammable, n.o.s.
Class:	2 - Gases

SECTION 15 REGULATORY INFORMATION

TSCA List: All chemical substances in this product are listed as "Active" in the EPA (Environmental Protection Agency) "TSCA Inventory Notification (Active-Inactive) Requirements Rule" ("the Final Rule") of Feb. 2019, as amended Feb. 2021, or are otherwise exempt or regulated by other agencies such as FDA or FIFRA.

DSL List: All chemical substances in this product are listed on the Canadian Domestic Substances List (DSL) or are exempt.

SARA 311/312 Hazard Classes:
Physical Hazard – Flammable (gases, aerosols, liquids, or solids).
Health Hazard – Serious eye damage or eye irritation.
Health Hazard – Specific target organ toxicity (single or repeated exposure).

California Prop 65: **WARNING**: This product can expose you to 1,3-Butadiene, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

Chemical Name	Carcinogenicity	Developmental Toxicity	Reproductive Toxicity Male	Reproductive Toxicity Female	No Significant Risk Level	Maximum Allowable Dose Level
Ethyleneimine (151-56-4)	X				0.01 µg/day	
Vinyl Chloride (75-01-4)	X				3 µg/day	
Acetaldehyde (75-07-0)	X				90 (inhalation)	
1,3-Butaadiene (106-99-0)	X	X	X	X		
Formaldehyde (50-00-0)	X				40 µg/day	
Methyl Alcohol (67-56-1)		X				47000 µg/day (inhalation); 23000 µg/day (oral)

US State Right-to-Know Regulations:

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Ethyleneimine (151-56-4)	X	X	X
Vinyl Chloride (75-01-4)	X	X	X
Acetaldehyde (75-07-0)	X	-	X
1,3-Butaadiene (106-99-0)	X	X	X
Formaldehyde (50-00-0)	X	X	X
Vinyl Acetate (108-05-4)	X	X	X
Acetone (67-64-1)	X	-	X
Dimethyl Ether (115-10-6)	X	X	X
Carbon Dioxide (as compressed gas) (124-38-9)	X	-	X
Nitrogen (7727-37-9)	X	X	X
Methyl Alcohol (67-56-1)	X	X	X
Talc (14807-96-6)	X	X	X

SECTION 16 OTHER INFORMATION

NFPA:	Health Hazards 1	Flammability 4	Instability 0
HMIS:	Health Hazards 1	Flammability 4	Physical Hazards 0

Previous Editions: First Published: 01/16/2023

Further Information: This SDS was prepared in accordance with OSHA regulatory standards for Toxic and Hazardous Substances: 29 CFR 1910.1200.

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