Safety Data Sheet

1. Product and Company Identification

Product Name: **Liquidweld™ SA 398**
Material Uses: Sprayable Adhesive
(M)SDS#: SA398-20190814
Validation Date: August-14-2019
Supplier/Manufacturer: Specialty Polymers & Services, Inc.
27822 Fremont Court
Valencia, CA 91355 USA
Tel: (661) 294-1790 or msds@spolymers.com

In case of emergency: Chemtrec (800) 424-9300 or (703) 527-3887

2. Hazards Identification

GHS CLASSIFICATION OF SUBSTANCE OR MIXTURE:

Skin corrosion/irritation:	Category 2, H315	Eye damage/Irritation:	Category 2A, H319
Aspiration Hazard:	Category 1, H304	Flammable liquid:	Category 2, H225
Specific Target Organ Toxicity - Single Exposure:	Category 2, H371	Specific Target Organ Toxicity - Single Exposure (Narcotic Effect):	Category 3, H336
Aquatic Hazard, Chronic:	Category 2, H411	Aquatic Hazard, Acute:	Category 3, H402
Acute toxicity (Inhalation):	Category 4, H332		

GHS LABEL ELEMENTS:

HAZARD SYMBOLS:

SIGNAL WORDS: Danger!

HAZARD STATEMENTS:

H315 Causes skin irritation.
H304 May be fatal if swallowed and enters airways.
H371 May cause damage to organs (respiratory system).
H411 Toxic to aquatic life with long lasting effects.
H332 Harmful if inhaled.
H319 Causes serious eye irritation.
H226 Flammable liquid and vapor.
H336 May cause drowsiness or dizziness.
H402 Harmful to aquatic life.

PRECAUTIONARY STATEMENTS:

PREVENTION:
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P240 Ground and bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/light/…/ equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P260 Do not breathe dust/fume/gas/mist/vapor/spray.
P261 Avoid breathing dust/fume/gas/mist/vapor/spray.
P264 Wash hands thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/eye protection/face protection.

RESPONSE: P301+P330+P331+P310 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER and/or doctor/physician.
P303+P361+P364+P353+P352 IF ON SKIN (or hair): Take off immediately all contaminated clothing and wash before reuse. Rinse skin with water/shower. Wash with plenty of soap and water.
P333+P313 If skin irritation or rash occurs: Get medical attention.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a POISON CENTER or doctor/physician if you feel unwell
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313: If eye irritation persists get medical advice/attention.
P308+P313 IF exposed or concerned: Get medical attention.
P370+P378 In case of fire: Use DRY chemical, alcohol-resistant foam, or carbon dioxide to extinguish.
P391 Collect spillage.

STORAGE: P403+P235 Store in a well-ventilated place. Keep cool.
P405 Keep locked up.

DISPOSAL: P501 Dispose of contents and containers in accordance with local, regional and international regulations.

Precautionary statements are listed according to the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS) – Annex III

See toxicological information (section 11)
General Information: Read entire MSDS for a more thorough evaluation of the hazards

3. Composition / Information on Ingredients

Name	CAS Number	%
Light Aromatic Naphtha	64742-95-6	20 – 26
Methyl Acetate	79-20-9	10 – 20
1,2,4-Trimethylbenzene	95-63-6	10 – 16
Dimethyl, methylhydrogen siloxane copolymers, trimethylsilyl endblocked	68037-59-2	0 – 10
Poly(dimethylsiloxane), hydride terminated	70900-21-9	0 – 10
Benzene, 1-chloro-4(trifluoromethyl)-	98-56-6	0 – 10
Xylenes	1330-20-7	0 – 3

Amounts specified are typical and do not represent a specification. Remaining components are proprietary, non-hazardous, and/or present at amounts below reportable limits.

4. First Aid Measures

Eye Contact: Check for and remove any contact lenses. Immediately flush eyes for at least 15 minutes with running water. Hold eyelids apart to ensure rinsing of the entire eye surface and lids with water. Get medical attention if irritation persist.

Skin Contact: In case of contact, wash affected areas with plenty of water, and soap, if available, for several minutes. Remove and clean contaminated clothing and shoes before re-use. Get medical attention if irritation occurs.

Inhalation: Move exposed person to fresh air. If not breathing, give artificial respiration or oxygen. If breathing is difficult, transport to medical care and, if available, give supplemental oxygen. Loosen tight clothing such as a collar, tie, belt, or waistband. Get immediate medical attention.

Ingestion: Wash out mouth with water. If swallowed dilute by giving two (2) glasses water to drink. Do not induce vomiting until direct to do so by medical personnel. Never give anything by mouth to an unconscious person. Get immediate medical attention.

Note to physician: No specific treatment. Treat symptomatically. Call poison control center if large quantities were ingested.

5. Fire-Fighting Measures

Flash point:	> -10°C (14°F)
Hazardous Thermal Decomposition Products:	Decomposition products may include the following materials: combustion gases of carbon dioxide and carbon monoxide, silicon dioxide, other oxides, chlorine and fluorine gases.
Extinguishing Media:	Carbon dioxide, foam, dry chemical, water spray as suitable for the surrounding fire.
Special Exposure Hazards:	Promptly isolate the scene by removing all persons from the vicinity of the fire. No actions shall be taken involving any personal risk or without suitable training. This product contains silicone which is known to produce Formaldehyde when temperatures reach in excess of 150°C (300°F). Formaldehyde is a known skin, eye, and throat irritant, as well as a potential cancer hazard.
Special Protective equipment for fire-fighters:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental Release Measures

Personal Precautions:	No actions shall be taken involving any personal risk or without suitable training. Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering area. Do not touch or walk through spilled material. Avoid breathing vapor or mist and provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
Environmental Precautions:	Avoid dispersal of spilled material and runoff that leads to contact with soil, waterways, drains, and sewers. Inform the relevant authorities if the product has caused environmental pollution.
Methods of Clean Up:	Stop leak if without risk. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Move containers from spill area. Approach spill from up wind if possible. Prevent spill from entering sewers, rivers and other water courses, basements, or confined areas. Wash into effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material (e.g. sand, earth, vermiculite, or diatomaceous earth) and place in container for disposal according to local regulations. Dispose of only using a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information.

7. Handling and Storage

Handling:	Wear appropriate personal protective equipment (see Section 8) when handling. Eating, drinking, and smoking should be prohibited in areas where chemicals are handled, stored, or processed. Workers should wash hands and face before eating, drinking, and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Persons with a history of skin sensitization problems should not be employed in processes where this material is used. Keep in the original container or a suitable alternate made from a compatible material. Keep all containers tightly closed when not in use. Keep away from heat, sparks, pilot lights, welding operations and open flame. Use non-sparking ventilation systems, approved explosion-proof equipment and intrinsically safe electrical systems in areas where this product is used and stored. Ground and bond containers and receiving equipment. Avoid static electricity by grounding. Empty containers retain product residue and should be disposed of properly. Do not reuse empty containers for other purposes or to hold other materials.
Storage:	Store in accordance with local regulations. Store in original containers, at 15°C - 25°C. Keep away from incompatible materials (see Section 10) and food and drink. Keep all containers tightly closed when not in use and tightly re-seal after use. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. Exposure Controls / Personal Protection

Light Aromatic Naphtha	ACGIH Threshold Limit Values (TLV): 25 ppm OSHA: TWA 100 ppm
Methyl Acetate	NIOSH – TWA: 200 ppm / 610 mg/m^3 NIOSH – STEL: 250 ppm / 760 mg/m^3 OSHA – TWA: 200 ppm / 610 mg/m^3

	ACGIH – STEL: 250 ppm / 757 mg/m^3
	ACGIH – TWA: 200 ppm / 606 mg/m^3
1,2,4-Trimethylbenzene	ACGIH TLV: 25 ppm
	OSHA: TWA 25 ppm
Benzene, 1-chloro-	OSHA – None established
4(trifluoromethyl)-	ACGIH – None established
	Corporate Exposure Limit (CEL) – TWA: 25 ppm – 8 hour
Xylene	ACGIH TLV: TWA 100 ppm, STEL 150 ppm
	Remarks: Central Nervous System Impairment Upper Respiratory Tract Irritation Eye irritation
	NIOSH Recommended Exposure Limits: TWA 25 ppm 100 mg/m^3
	Occupational Exposure Limits (OSHA): Table Z-1 - TWA: 100 ppm / 435 mg/m^3

Recommended Monitoring Procedures:	If this product contains ingredients with exposure limits, personal, workplace, atmospheric, or biological monitoring may be required to determine the effectiveness of the ventilation system or other control measures and/or to determine whether it is necessary to use respiratory protective equipment. Consider European Standard EN 689 or similar industry or governmental guidelines for appropriate methods for the assessment of exposure by inhalation to chemical agents and/or hazardous substances.
Engineering measures:	No special ventilation requirements are necessary for this product. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation, or other engineering controls to keep worker exposure below the recommended or statutory limits
Hygiene measures:	Wash hands, forearms, and face thoroughly after handling any chemical products, before eating, smoking, and using the lavatory and at the end of the work period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protection

Respiratory:	A respiratory protection program in compliance with 29CFR1910.134, or other applicable regulatory standard must be followed whenever exposure limits may be exceeded. If engineering controls are not feasible, or if inadequate ventilation wear respiratory protection. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Hands:	Wear neoprene, nitrile rubber or other suitable impervious gloves; consider European Standard EN374 or similar industry or governmental guidelines. Consider the parameters specified by the glove manufacture and check gloves during use to ensure they are retaining their protective properties. Gloves selected must have a breakthrough rating appropriate for the work shift. If a risk assessment indicates that it is necessary, gloves should always be worn when handling chemical products.
Eyes:	When a risk assessment indicates, safety eyewear complying with an approved standard, such as OSHA Standard 29CFR1910.133 or European Standard EN166, should be used to avoid exposure to liquid splashes, mists, or dusts. If contact is possible, at a minimum use chemical splash googles. If significant splash hazard may occur, consider using a full-face shield.
Skin:	Personal Protective equipment for the body should be selected based on the task being performed and the risks involved. Typical protective equipment includes non-absorbent lab coats, disposable protective sleeves, coats, or whole-body suits. Consider CFR1910.132 and CFR1910.136 for OSHA approved standards on protective clothing and footwear. Consider seeing a safety specialist to determine the appropriate level of protection for your task.
Environmental Exposure Controls:	Emissions from ventilation or work processes should be checked to ensure they comply with the requirements of environmental regulations. In some cases, fume scrubbers, filters, or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and Chemical Properties

Appearance:	Clear to hazy liquid	Odor	Aromatic
Boiling Point:	> 57°C (135°F)	Freezing Point:	Not determined
Flash Point:	> -10°C (14°F)	pH:	Not determined
Auto-ignition Temperature:	Not determined	Flammable Limits:	Not determined
Vapor Pressure:	Not determined	Water Solubility:	Partially solubility
Specific Gravity:	0.94	Vapor Density:	Not determined
Evaporation Rate:	Not determined	VOC:	Not determined

Viscosity: low

10. Stability and Reactivity

Chemical Stability: This product is stable, under normal conditions of storage and use, hazardous reactions will not occur.

Hazardous Polymerization: Under normal conditions of storage and use, hazardous polymerization will not occur.

Conditions to Avoid: Avoid sources of ignition (sparks or flames). Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to heat. Avoid high temperatures and exposure to strong oxidizing agents, alkalis, strong acids, and strong bases.

Hazardous Decomposition: Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition products may include the following materials: combustion gases of carbon dioxide and carbon monoxide, silicon dioxide, other oxides, chlorine and fluorine gases. Contact with acids or bases releases flammable hydrogen gas. This product contains silicone which is known to produce Formaldehyde when temperatures reach in excess of 150°C (300°F). Formaldehyde is a known skin, eye, and throat irritant, as well as a potential cancer hazard.

11. Toxicological Information

Acute Toxicity

Product/Ingredient Name	Test	Endpoint	Species	Result
Benzene, 1-chloro-4(trifluoromethyl)-	-	LD50 Oral	Rat	> 6,800 mg/kg
	-	LD50 Dermal	Rabbit	> 2,700 mg/kg
	-	LC50 Inhalation	Rat	> 4479 ppm

Irritation / Corrosion

Product/Ingredient Name	Test	Species	Result
Light Aromatic Naphtha	-	-	Eye and Skin Irritant
Methyl Acetate	-	-	Eye and Skin Irritant
1,2,4-Trimethylbenzene	-	-	Eye and Skin Irritant
Dimethyl, methylhydrogen siloxane copolymers, trimethylsilyl endblocked	-	-	Eye and Skin Irritant
Poly(dimethylsiloxane), hydride terminated	-	-	Eye and Skin Irritant
Benzene, 1-chloro-4(trifluoromethyl)-	-	-	Eye and Skin Irritant
Xylenes	-	-	Eye and Skin Irritant

Sensitizer

Product/Ingredient Name	Test	Species	Result
Methyl Acetate	Respiratory system	-	Respiratory System-Slightly irritating

Mutagenicity

Product/Ingredient Name	Test	Result
Not available		

Conclusion/ Summary: the weight of scientific evidence indicates that the components of this product are not genotoxic

Carcinogenicity

Xylene is classified by IARC as Group 3 (Not classifiable as to its carcinogenicity to humans)

No other component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive Toxicity

Product/Ingredient Name	Test	Species	Maternal Toxicity	Fertility	Developmental Effects
Not available					

Teratogenicity

Product/Ingredient Name	Test	Species	Results
Not available			

Potential Acute Health Effects

Inhalation: Harmful if inhaled, may be fatal if swallowed and enters airways. May cause drowsiness or dizziness.

Ingestion: May be fatal if swallowed and enters airways.

Skin Contact: Causes skin irritation.

Eye Contact: Causes serious eye irritation.

Potential Chronic Health Effects

Product/Ingredient Name	Test	Endpoint	Species	Results
None Known				

General: Once sensitized, an allergic reaction may occur when subsequently exposed to very low levels
Target Organs: May cause damage to organs (respiratory system).
Carcinogenicity: No known significant effects or critical hazards
Mutagenicity: No known significant effects or critical hazards
Teratogenicity: No known significant effects or critical hazards
Developmental Effects: No known significant effects or critical hazards
Fertility Effects: No known significant effects or critical hazards

12. Ecological Information

Environmental Effects: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Water polluting material. May be harmful to the environment if released in large quantities.

Aquatic Ecotoxicity

Product/Ingredient Name	Test	Endpoint	Exposure	Species	Result
Benzene, 1-chloro-4(trifluoromethyl)-	-	LC50	96 hours	Rainbow Trout	13.5 mg/l
	-	LC50	96 hours	Bluegill sunfish	12.0 mg/l
	-	LC50	48 hours	Water flea	12.4 mg/l
	-	IC50	72 hours	Algae	500 mg/l

Persistence and Degradability

Product/Ingredient Name	Test	Period	Result
Benzene, 1-chloro-4(trifluoromethyl)-	-	-	Inconclusive due to volatility

Product/Ingredient Name	Aquatic half-life	Photolysis	Biodegradability
Product	-	-	Not Biodegradable

Bioaccumulative potential

Product/Ingredient Name	Log P_{ow}	BCF	Potential
Benzene, 1-chloro-4(trifluoromethyl)-	3.7	121.8	-

Other adverse effects: No known significant effects or critical hazards
Other information: BOD5: Not determined COD: Not Determined TOC: Not determined

13. Disposal Consideration

Waste Disposal Method: Disposal of this products, solutions, and by-products should always comply with the requirements of environmental and waste disposal legislation and any regional or local authority requirements. Dispose of surplus, non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed on untreated to the sewer system unless this is complaint with all applicable laws and regulations. Incineration by an approved and licensed contractor is the most common disposal method. Packaging materials that and absorbents containing the product can typically be landfilled or incinerated. Contact local authorities to determine the proper means of disposal in your area.

14. Transport Information

Note: Some small package sizes of this product when packed and shipped as required under DOT 49 CFR regulations may qualify for ground shipment within the United States under the Consumer Commodity / ORM-D classification.

DOT, 49CFR: Non-Bulk and TDG (Canadian) Classification: **UN/ID Number:** UN1993
Proper Shipping Name: Flammable Liquid, N.O.S. (Methyl Acetate, Aromatic Hydrocarbons)
Hazard Class: 3 **Label:** Flammable liquid **Packing Group:** PGII

IATA: Non-Bulk **UN/ID Number:** UN1993
Proper Shipping Name: Flammable Liquid, N.O.S. (Methyl Acetate, Aromatic Hydrocarbons)
Hazard Class: 3 **Label:** Flammable liquid **Packing Group:** PGII

15. REGULATORY INFORMATION

US Federal Regulations:

Occupational Safety and Health Act (OSHA): This product is a hazardous chemical under the OSHA Hazard Communication Standard (29 CFR 1910.1200).

SARA Title III: Section 304 - CERCLA: This product contains chemicals regulated under Section 304 as extremely hazardous substance(s) for emergency release notification ("CERCLA" List):

Ingredient	CAS #	Component RQ (lbs.)	Calculated Product RQ (Lbs.)
Xylene	1330-20-7	100	>3,000

SARA Title III: Section 311/312 - Hazard Communication Standard (HCS): Per the June 13, 2016 Federal Register notice, EPA harmonized the EPCRA 311/312 hazard categories with the 2012 OSHA hazard communication standard for classifying and labeling of chemicals (i.e. GHS). Please refer to section 2 of the SDS to identify the appropriate hazard categories for reporting purposes.

SARA Title III: Section 313 Toxic Chemical List (TCL): This product contains one or more toxic chemicals for routine annual Toxic Chemical Release Reporting under section 313 (40 CFR 372).

1,2,4-Trimethylbenzene (CAS 95-63-6), 0 – 10%

Xylene (CAS 1330-20-7), 0 – 3%

TSCA Section 8(b) - Inventory Status: All chemical(s) comprising this product are listed on the TSCA inventory.

TSCA Section 12(b) - Export Notification: This product does not contain chemicals which are subject to Section 12(b) export notification.

State Regulations:

California Proposition 65: This product does not contain a chemical known to the state of California to cause cancer or reproductive harm.

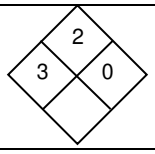
International Regulations:

WHMIS: Class B-2: Combustible Liquids: Flashpoint of < 37.8°C (100°F)
Class D-2B: Material causing other toxic effects

16. OTHER INFORMATION

Hazardous Material Information System (HMIS) - USA	
Health	3
Flammability	2
Physical Hazards	0
Personal Protection	C*

National Fire Protection Association (USA):



*suggested minimum personal protection equipment. End user must determine appropriateness of these suggestions for their applications and usage conditions.

Reason Issued: update
Prepared by: P. White **Approved by:** **C. Meyer** Title: Vice President

NOTICE TO READER: While the information and recommendations in this publication are to the best of our knowledge, information and belief accurate at the date of publication, NOTHING HEREIN IS TO BE CONSTRUED AS A WARRANTY, EXPRESS OR OTHERWISE.

IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF PRODUCTS FOR THE USER'S PARTICULAR PURPOSE(S).

THIS PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

The product(s) has not been tested for, and is therefore not recommended for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended; or for uses for which implantation within the human body is intended.