SAFETY DATA SHEET

Issue Date 22-May-2014 **Revision Date** 15-Apr-2016 **Version** 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier
Product Name SF

Other means of identification
Synonyms SF

Recommended use of the chemical and restrictions on use
Recommended Use General Purpose UV Cure Resin
Uses advised against No information available

Details of the supplier of the safety data sheet
Manufacturer Address
MakerJuice Labs LLC
7889 Mastin Drive
Overland Park, KS 66204 USA

Email: support@makerjuice.com
Website: http://www.makerjuice.com

Emergency telephone number
Company Phone Number (913) 777-4996 [9-5PM CST, M-F]

2. HAZARDS IDENTIFICATION

Classification

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

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1

Label elements

Emergency Overview

Danger

Hazard statements
Causes skin irritation
Causes serious eye damage
May cause an allergic skin reaction

Appearance viscous **Physical state** liquid **Odor** Ester

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing should not be allowed out of the workplace

Precautionary Statements - Response
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER or doctor/physician
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

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
Not Applicable

Other Information
Unknown Acute Toxicity 0% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight-%	Trade Secret
acrylate ester	proprietary	>60	*
photoinitiator	proprietary	<1	*

* If CAS number is "proprietary", the specific chemical identity has been withheld as a trade secret. The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures

General advice If symptoms persist, call a physician.

Eye contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

Skin Contact Avoid UV-radiation/sunlight. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician. Wash contaminated clothing before reuse.

Inhalation If fumes from reactions are inhaled, move to fresh air immediately. If symptoms persist, call a physician.

Ingestion Rinse mouth. Drink plenty of water. Do NOT induce vomiting. Call a physician immediately.

Self-protection of the first aider Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

Symptoms May cause allergic skin reaction.

Indication of any immediate medical attention and special treatment needed

Note to physicians May cause sensitization of susceptible persons. Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Dry chemical, CO2, alcohol-resistant foam or water spray.

Unsuitable extinguishing media: Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical
In the event of fire and/or explosion do not breathe fumes. May cause sensitization by inhalation and skin contact. Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Hazardous combustion products: Formaldehyde.

Explosion data
Sensitivity to Mechanical Impact: None.
Sensitivity to Static Discharge: None.

Protective equipment and precautions for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions	Ensure adequate ventilation, especially in confined areas. Use personal protective equipment as required. Avoid contact with eyes and skin. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Environmental precautions

Environmental precautions	Do not flush into surface water or sanitary sewer system. See Section 12 for additional ecological information.

Methods and material for containment and cleanup

Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. After cleaning, flush away traces with water.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling	Use only in well-ventilated areas. Avoid breathing fumes from hot material. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray.

Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers. Protect from direct sunlight and ultraviolet (UV). Keep away from heat.
Incompatible materials	Strong oxidizing agents. Strong acids. Strong bases.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering Controls Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles.

Skin and body protection Wear protective nitrile rubber gloves.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

General Hygiene Considerations When using do not eat, drink or smoke. Wash face, hands and any exposed skin thoroughly after handling. Wash contaminated clothing before reuse. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	liquid		
Appearance	viscous	**Odor**	Ester
Color	red, yellow, green, blue, black, white	**Odor threshold**	No information available

Property	**Values**	**Remarks • Method**
pH	No information available	
Melting point/freezing point	No information available	
Boiling point / boiling range	No information available	
Flash point	> 100 °C (> 212 °F)	
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific Gravity	Approx. 1	
Water solubility	Low solubility	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	555 cP	@ 20 °C
Explosive properties	No information available	
Oxidizing properties	No information available	
Softening point	No information available	
Molecular weight	No information available	
VOC Content (%)	No information available	
Density	No information available	
Bulk density	No information available	

10. STABILITY AND REACTIVITY

Reactivity
No data available

Chemical stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Conditions to avoid
Heat, flames and sparks. Extremes of temperature and direct sunlight. To avoid thermal decomposition, do not overheat. UV-radiation/sunlight.

Incompatible materials
Strong oxidizing agents. Strong acids. Strong bases.

Hazardous Decomposition Products
Formaldehyde.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	No data available.
Eye contact	Risk of serious damage to eyes.
Skin Contact	May cause sensitization by skin contact.
Ingestion	No data available.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
acrylate ester	= 4600 mg/kg (Rat)	> 2 g/kg (Rabbit)	-

Information on toxicological effects

Symptoms May cause an allergic skin reaction.

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

Corrosivity	Risk of serious damage to eyes.
Sensitization	May cause sensitization by skin contact.
Germ cell mutagenicity	No information available.
Carcinogenicity	May release formaldehyde when heated to high temperatures [> 150 °C (> 212 °F)] in the presence of air. Formaldehyde is a known skin and lung sensitizer and is regulated as a carcinogen.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

Numerical measures of toxicity - Product Information

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

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life

Persistence and degradability
No information available.

Bioaccumulation
No information available.

Other adverse effects No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Resin Curing Resin is converted from a liquid state into a cured and hardened inert state by photo polymerization. Resin can also be converted from a liquid state into a cured and hardened inert state by raising the temperature above 350°F for one hour. Ensure proper ventilation is available to exhaust any fumes.

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Do not reuse container.

14. TRANSPORT INFORMATION

DOT Not regulated

TDG Not regulated

IATA Not regulated

IMDG Not regulated

ADR Not regulated

15. REGULATORY INFORMATION

International Inventories
TSCA Complies

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

US Federal Regulations
SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No

Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated by state right-to-know regulations

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR WHMIS Hazard Class

D2B - Toxic materials 

16. OTHER INFORMATION

NFPA	**Health hazards** 2	**Flammability** 0	**Instability** 0	**Physical and Chemical Properties** -
HMIS	**Health hazards** 2	**Flammability** 0	**Physical hazards** 0	**Personal protection** X

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Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet