

1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY UNDERTAKING

1.1 Product identifier

Product name	SAFASBOND™ ALL COLORS
Chemical Family	Mixture
Product code	-
CAS number	Not applicable

1.2 Manufacturer, Importer or Responsible Party

Name	SAFAS Corporation
Address	2 Ackerman Avenue Clifton New Jersey, 07011 USA
Telephone	+1 973 772 5252

1.5 Emergency phone number

Telephone	<u>USA:</u> 1-800-424-9300 <u>International:</u> 1-703-527-3887
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1.6 Relevant use of the product

Applications	Bonding agent for acrylic composite, polyester composite, quartz composite, and natural stone
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1.7 Product Uses advised against

No data available

2. HAZARDS IDENTIFICATION

2.1 Classification of product or mixture

Note to reader: This product in an untested mixture and GHS classification is based on the classification of the ingredients and their concentrations. Proprietary ingredients, if any, do NOT exhibit any health effects not listed in this SDS.

GHS Classification:	Flammable Liquid: Category 2 Skin irritation: Category 2 Skin Sensitization: Category 1 Specific Target Organ Toxicity, Single Exposure, Respiratory System: Category 3
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2.2 GHS Label Elements, including precautionary statements



Pictogram:
Signal Word: Danger



SAFETY DATA SHEET

SAFASBOND™

Version 1.0

Date: 05/15/2015

GHS Hazard Statements:

H225: Highly flammable liquid and vapour.

H315: Causes skin irritation.

H317: May cause an allergic skin reaction. H335: May cause respiratory irritation.

GHS Precautionary Statements:

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. P261: Avoid breathing mist, vapours or spray

P264: Wash skin thoroughly after handling.

P271: Use only outdoors or in a well-ventilated area.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P321: Specific treatment (see supplemental first aid instruction on this label).

P302+P352: IF ON SKIN: Wash with plenty of soap and water. P303+P361+P353: IF ON SKIN: (or hair): Take off immediately all

contaminated clothing. Rinse skin with water. [or shower]. P304+P340: IF INHALED: Remove victim to fresh air and keep at

rest in a position comfortable for breathing.

P312: Call a POISON CENTER or doctor/physician if you feel unwell.

P332+P313: If skin irritation occurs: Get medical advice/attention.

P333+P313: If skin irritation or rash occurs: Get medical advice/attention.

P362+P364: Take off contaminated clothing and wash it before reuse. P370+P378: In case of fire: Use dry sand, dry chemical or alcohol-

resistant foam for extinction.

P403+P233: Store in a well-ventilated place. Keep container tightly closed.

P403+P235: Store in a well-ventilated place. Keep cool.

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

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS: Lachrymator

2.4 Additional Information

Primary Routes of Entry:

Skin Contact: Yes Skin

Absorption: Yes Eye Contact:

Yes Ingestion: Yes Inhalation:

Yes

Emergency Overview: DANGER. Flammable liquid - may release vapors that form flammable mixtures at or above the flash point. Vapours will be easily ignited by heat, spark or flames. Heat may cause the containers to explode. Irritating to eyes and skin.

Effects of Short-Term (Acute) Exposure:



SAFETY DATA SHEET

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Version 1.0

Date: 05/15/2015

Inhalation: May cause irritation of respiratory tract. Prolonged inhalation may be harmful. Avoid breathing dust/fume/gas/mist/vapors/spray.

Skin Contact: May cause skin irritation. Avoid contact with the skin.

Eye Contact: Contact with eyes may cause irritation. Avoid contact with eyes.

Ingestion: Components of the product may be absorbed into the body by ingestion. Irritating. May cause nausea, stomach pain and vomiting. Do not ingest.

Effects of Long-Term (Chronic) Exposure: This product contains ingredients which have been known to cause skin sensitization in some people. Sensitization may occur after prolonged or repeated exposures to this product. Prolonged contact with skin may defat tissue causing dermatitis or aggravate existing skin problems.

Medical Conditions Aggravated By Exposure: Persons susceptible to skin problems may find that the use of this product will cause increased symptoms of existing skin problems

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	% (w/w)	Exposure Limits (ACGIH)*	LD50	LC50
Methyl Methacrylate (CAS No. 80-62-6) (EINECS No. 201-297-	35 - 50	TLV-TWA: 50 ppm TLV-STEL: 100 ppm	7872 mg/kg (oral/rat) >5,000 mg/kg	78,000 mg/m ³ (rat inhalation/ 4 hour)
Non-hazardous ingredients and ingredients below disclosure	50 - 65	N/ap	N/ap	N/ap

GHS CLASSIFICATION: FLAM LIQ. CAT 2; SKIN IRR., Cat 2; SKIN SENS. Cat 1; STOT SE. Respiratory System. Cat

* ACGIH: American Conference of Governmental Industrial Hygienists. Exposure limits may vary from time to time and from one jurisdiction to another. Check with local regulatory agency for the exposure limits in your area.

ABBREVIATION KEY: N/p: not published, N/d: not determined, N/ap: not applicable, N/av: not available

4. FIRST AID MEASURES

4.1 Description of First Aid Measures

General advice: In case of shortness of breath, give oxygen. Get medical attention if symptoms occur. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Keep victim under observation. Keep victim warm.

In case of eye contact: Flush eyes with water, as a precaution.

In case of skin contact: Take off immediately all contaminated clothing. Wash off immediately with soap and plenty of water. Get medical attention if irritation develops and persists. For minor skin contact, avoid spreading material on unaffected skin.

If inhalation: Move to fresh air. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical attention, if needed.



If ingestion: Rinse mouth thoroughly. Never give anything by mouth to a victim who is unconscious or is having convulsions. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If ingestion of a large amount does occur, call a poison control center immediately.

4.2 Most important symptoms and effects, both acute and delayed

Effects of Short-Term (Acute) Exposure:

Inhalation: May cause irritation of respiratory tract. Prolonged inhalation may be harmful. Avoid breathing dust/fume/gas/mist/vapors/spray.

Skin Contact: May cause skin irritation. Avoid contact with the skin.

Eye Contact: Contact with eyes may cause irritation. Avoid contact with eyes.

Ingestion: Components of the product may be absorbed into the body by ingestion. Irritating. May cause nausea, stomach pain and vomiting. Do not ingest.

Effects of Long-Term (Chronic) Exposure: This product contains ingredients which have been known to cause skin sensitization in some people. Sensitization may occur after prolonged or repeated exposures to this product. Prolonged contact with skin may defat tissue causing dermatitis or aggravate existing skin problems.

Medical Conditions Aggravated By Exposure: Persons susceptible to skin problems may find that the use of this product will cause increased symptoms of existing skin problems.

4.3 Indication of any immediate medical attention and special treatment needed None

5. FIRE FIGHTING MEASURES

5.1 Extinguishing Media

Suitable extinguishing media: Water spray, dry sand, alcohol-resistant foam, dry chemical, or carbon dioxide. Do not use water jet, which may spread a fire.

5.2 Special hazards arising from mixture: Vapors may travel to source of ignition and flash back. Avoid ignition sources or excessive temperatures. Container may explode under fire conditions. Spontaneous polymerization may occur with prolonged aging or exposure to light.

Advice for firefighters: Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also consider initial evacuation for 800 meters (1/2 mile) in all directions. ALWAYS stay away from tanks engulfed in flame. In the event of fire, cool tanks with water spray. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out. Some of these materials, if spilled, may evaporate leaving a flammable residue.

5.3 Further Information:

Sensitivity to Impact: No

Sensitivity to Static Discharge: Yes

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) HAZARD INDEX:

HEALTH: 2 FLAMMABILITY: 3 REACTIVITY: 0

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment listed below. Avoid breathing vapours, mist or spray. Ensure adequate ventilation. Remove all sources of ignition and heat. Evacuate area. Beware of vapours accumulating to form explosive mixtures with air. Vapours may travel long distances and collect in low-lying areas. Flash backs may occur.

Respiratory Protection: 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. At minimum, use a NIOSH approved organic vapour respirator. When cartridge type respirators are used, ensure that the cartridges are changed frequently according to the manufacturer's recommendations. Respirator selection must be done by a qualified person and be based upon a risk assessment of the work activities and exposure levels. Respirators must be fit tested and users must be clean shaven where the respirator seals to face. Exposure must be kept at or below the applicable exposure limits and the maximum use concentration of the respirator must not be exceeded.

Skin protection: Handle with gloves. Gloves must be inspected before use. Use proper gloove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good industrial practices. Wash and dry hands after use. Wear appropriate chemical resistant clothing. Gloves and protective clothing may be made from butyl rubber, minimum thickness, 0.3 mm. Breakthrough time is approximately 66 minutes.

Eye and Face Protection: Wear safety glasses with side shields (or goggles).

Footwear: No specific recommendation.

Other: Emergency eyes wash fountains should be available in vicinity of use. At minimum, an eye lavage kit should be kept on hand.

6.2 Environmental precautions

Ensure that any release of this material is contained to prevent leakage into waterways and sanitary sewers.

6.3 Methods and materials for containment and cleanup

Extinguish all flames in the vicinity. Should not be released into the environment. The product is only slightly soluble in water and will spread on the water surface.

Remedial Measures: Wash spill area with strong detergent and water solution, rinse with minimal water, if possible.

Large Spills: Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet brushing and place in container for disposal in accordance with local regulations.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

6.4 Reference to other sections : For disposal see section 13

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Use in a well-ventilated area. Wear suitable protective equipment during handling. Avoid breathing vapors, fumes or dust. Avoid contact with skin, eyes and clothing. Keep away from heat, sparks, and open flames. No sparking tools should be used. Avoid contact with incompatible materials.



Wash thoroughly after handling.

7.2 Conditions for safe storage

Store in a cool, dry, well-ventilated area. Keep away from direct sunlight. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. No smoking in the area.

7.3 Incompatible Materials

Part A: Strong oxidizing agents; Strong alkalis; Strong acids; Reducing agents; Amines; Halogens; Catalytic metals.
Part B: Strong acids; Strong bases; Strong oxidizing agents; Amines; Reducing agents.
Part B is an organic peroxide listed as an incompatible substance to Part A. Mixing Part A and B must be done under controlled conditions as prescribed in the product directions. Use of the resin dispensers provided with the resin kits is adequate for measuring correct amounts of each.

7.4 Special packaging materials

Always keep in containers made of the same materials as the supply container.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

Methyl Methacrylate: ACGIH TLV-TWA: 50 ppm, STEL: 100 ppm

8.2 Exposure Controls

Engineering Controls: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Ensure adequate ventilation, especially in confined areas. **Respiratory Protection:** 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. At minimum, use a NIOSH approved organic vapour respirator. When cartridge type respirators are used, ensure that the cartridges are changed frequently according to the manufacturer's recommendations. Respirator selection must be done by a qualified person and be based upon a risk assessment of the work activities and exposure levels. Respirators must be fit tested and users must be clean shaven where the respirator seals to face. Exposure must be kept at or below the applicable exposure limits and the maximum use concentration of the respirator must not be exceeded.

Skin protection: Handle with gloves. Gloves must be inspected before use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good industrial practices. Wash and dry hands after use. Wear appropriate chemical resistant clothing.

Gloves and protective clothing may be made from butyl rubber, minimum thickness, 0.3 mm. Breakthrough time is approximately 66 minutes.

Eye and Face Protection: Wear safety glasses with side shields (or goggles).

Footwear: No specific recommendation.

Other: Emergency eyes wash fountains should be available in vicinity of use. At minimum, an eye lavage kit should be kept on hand.

Control of environmental exposure: Prevent further leakage or spillage, if safe to do so.

Do not let product enter drains.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance:	Clear, transparent liquid, may be tinted
Odour:	Typical resin
Odour Threshold:	Not available
pH:	Not applicable
Melting Point/Freezing Point:	Not available
Initial Boiling Point:	101°C
Flash Point:	9°C (TCC), (Methyl Methacrylate)
Evaporation Rate:	Not available
Flammability:	Flammable
Upper Explosion Limit:	12.5%, (Volume/Methyl Methacrylate)
Lower Explosion Limit:	2.12%, (Volume/Methyl Methacrylate)
Vapour Pressure:	51 hPa @ 25°C (Methyl Methacrylate)
Vapour Density:	Heavier than air
Relative Density:	1.06 @ 25°C (water =1)
Solubility:	Slightly soluble in water
Partition Coefficient:	Log pow: 1.38 (Methyl Methacrylate)
Autoignition Temperature:	Not available
Decomposition Temperature:	Not available
Viscosity:	Not available
Explosive Properties:	Not available
Oxidizing Properties:	Not available
Percent Volatiles:	Not available

9.2 Other safety information: None

10. STABILITY AND REACTIVITY

10.1 Reactivity

No information available.

10.2 Chemical Stability

Polymerizes with evolution of heat. Avoid contact with incompatible materials as listed in Part 10.5. Stable under normal storage conditions.

10.3 Possibility of hazardous reactions

High temperatures, inhibitor depletion, accidental impurities or oxidizers may initiate spontaneous polymerization, generating heat and pressure. Closed containers may rupture during hazardous polymerization. Vapours may form explosive mixtures in air.

10.4 Conditions to avoid

May polymerize on exposure to direct sunlight. Avoid heat, flames and ignition sources.

10.5 Incompatible materials

Oxidizing agents. Peroxides, amines, bases, halogens or reducing agents.

10.6 Hazardous decomposition products : No Data

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity



LD50 7,872mg/kg (oral/rat)
LC50 78,000 mg/kg (inhalation/rat) LD50
>5,000mg/kg (dermal/rabbit)

Skin corrosion/irritation

Components of this mixture may cause skin irritation, H315, Category 2, Warning

Serious eye damage/eye irritation

Not classifiable.

Respiratory or skin sensitization

Components of this mixture may cause skin sensitization, H317, Category 1, Warning

Germ Cell Mutagenicity

Not classifiable.

Carcinogenicity

Not classifiable.

Reproductive toxicity

Not classifiable.

Specific Target Organ Toxicity – Single exposure

Components of this mixture may cause respiratory irritation, H335, Category 3, Warning

Specific Target Organ Toxicity – Repeated exposure

Not classifiable.

Aspiration Hazard

Not classifiable.

Aquatic Toxicity

Not classifiable.

Additional information

No information available

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish LC50 Pimephales promelas (fathead minnow), 125.5 – 275.0 mg/l (96 hour)

Toxicity to daphnia and other aquatic invertebrates EC50 Daphnia Magna (Water Flea), 720 mg/l

Toxicity to algae EC50 Pseudokirchneriella subcapitata (green algae), 170 mg/l (96 hour)

12.2 Persistence and degradability

No data available

12.3 Bio-accumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Not conducted

12.6 Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

13. DISPOSAL CONSIDERATION

13.1 Waste treatment methods

Product:

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Dispose in accordance with all applicable regulations. Residual vapors may explode on ignition; do not cut, drill, or weld on or near the container. Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to an approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations.

Contaminated Packaging:

Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. TRANSPORT INFORMATION

Transport of Dangerous Goods (TDG and CLR): UN 1133, Adhesives, Class 3, PG III

United States Department of Transport (49CFR): UN 1133, Adhesives, Class 3, PG III

International Air Transport Association (IATA): UN 1133, Adhesives, Class 3, PG III

International Maritime Organization (IMO): UN 1133, Adhesives, Class 3, PG III

Flash Point = 31°C, EmS F-E, S-D, Stowage Category A

15. REGULATORY INFORMATION

CANADIAN FEDERAL REGULATIONS:

CEPA, DOMESTIC SUBSTANCES LIST: Listed

UNITED STATES – FEDERAL REGULATIONS:

TOXIC SUBSTANCES CONTROL ACT (TSCA): All components are listed in the inventory. **CALIFORNIA Proposition 65, Safe Drinking Water and Toxicity Enforcement Act, 1986:** None listed **OSHA, 29 CFR 1910, Subpart Z:** Meets criteria for a hazardous substance.

CERCLA, 40 CFR 302: No ingredients are listed.

SARA 302, 40 CFR 355: No ingredients are listed.

SARA 313, 40 CFR 372: Methyl Methacrylate, Revision Date 2007-07-01

SARA 311/312, 40 CFR 370: Immediate (Acute), Delayed(Chronic) Health

16. OTHER INFORMATION

Indications on the revision

Revision on 15th of May 2015:

Addition of all fields as required by regulation (US) HazCom 1910.1200 [HCS 2012].

Update of the classification information and update of related sections accordingly.

Abbreviations and acronyms used

CAS N^o.: Chemical Abstract Service Number

UN N^o.: United Nations Number

Methods of evaluation for the classification of mixtures

The classification of the mixture was set based on the regulation (US) HazCom 1910.1200 [HCS 2012].

Other information

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