Material Safety Data Sheet

421-4140 PLASTOFIX® 550 40 SHEEN

1 . Product and company identification

Code : 421-4140

Synonym : PLASTOFIX® 550 40 SHEEN

Material uses : Coatings: Surface coatings and finishes.

Manufacturer : Chemcraft® Coating Technology Inc.
311 Otterson Drive, Suite 60
Chico, CA 95928
Ph:530-894-3585 Fax:530-896-0657

In case of emergency : 1-800-424-5571

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Validator : **K. DeBiasi**

2. Hazardous ingredients

Name	CAS number	%
Isopropanol	67-63-0	15 - 30
1-Butanol	71-36-3	5 - 15
Xylenes	1330-20-7	5 - 15
Acetone	67-64-1	5 - 15
Isobutyl alcohol	78-83-1	1 - 5
Light aromatic naphtha	64742-95-6	1 - 5
1,2,4-Trimethylbenzene	95-63-6	1 - 5
Isobutyl acetate	110-19-0	1 - 5
Ethyl alcohol	64-17-5	1 - 5
Ethylbenzene	100-41-4	1 - 5
Silica, amorphous	7631-86-9	1 - 5
Potential additional emission of formaldehyde	50-00-0*	0.1 - 1
Formaldehyde	50-00-0	0.1 - 1

Trace impurities and additional material names not listed above may appear in other sections of this MSDS. These materials may be listed for toxicological concerns, local compliance, or other reasons.

* Toxicological information, if available, is listed in section 11

3. Hazards identification

Physical state : Liquid.

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

OSHA: Standard for Occupational Exposure to Formaldehyde 29CFR 1910.1048 must be consulted before initial use of product.

Routes of entry : Dermal contact. Eye contact. Inhalation. Ingestion.

Effects of Acute Exposure : Do not ingest. Do not get in eyes or on skin or clothing. Wash thoroughly after handling. Risk of cancer depends on duration and level of exposure.

3. Hazards identification

Potential chronic health effects : **CARCINOGENIC EFFECTS**: Classified A5 (Not suspected for humans.) by ACGIH, 4 (Probably not for humans.) by IARC, None. by OSHA [1-Butanol]. Classified A5 (Not suspected for humans.) by ACGIH, 4 (Probably not for humans.) by IARC, None. by OSHA [2-Propanone]. Classified D (Not classifiable for humans or animals.) by EPA [2-Propanone]. Classified A4 (Not classifiable for humans or animals.) by ACGIH [Ethanol]. Classified 1 (Proven for humans.) by IARC [Potential additional emission of formaldehyde]. Classified A2 (Suspected for humans.) by ACGIH, 2 (Reasonably anticipated to be human carcinogens.) by NTP [Potential additional emission of formaldehyde]. Classified 1 (Proven for humans.) by IARC [Formaldehyde]. Classified A2 (Suspected for humans.) by ACGIH, 2 (Reasonably anticipated to be human carcinogens.) by NTP [Formaldehyde].
MUTAGENIC EFFECTS: Not available.
TERATOGENIC EFFECTS: Classified None. for humans [2-Propanone].

Medical conditions aggravated by over-exposure : Repeated or prolonged exposure to the substance can produce target organs damage.

See toxicological information (section 11)

4 . First aid measures

Eye contact : Get medical attention immediately. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses.

Skin contact : Get medical attention immediately. Flush contaminated skin with plenty of water. Continue to rinse for at least 10 minutes. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing or wear gloves. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Inhalation : Get medical attention immediately. Move exposed person to fresh air. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. 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.

Ingestion : Get medical attention immediately. Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. 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.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training.

5 . Fire-fighting measures

Flammability of the product : Flammable.

Products of combustion : These products are carbon oxides (CO, CO_2). Some metallic oxides.

Extinguishing media

Suitable : Use an extinguishing agent suitable for the surrounding fire.

Not suitable : None known.

Special exposure hazards : No specific hazard.

Special Remarks on Fire Hazards : Vapor may travel considerable distance to source of ignition and flash back. When heated to decomposition, it emits acrid smoke and fumes. (2-Propanol)

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.

5 . Fire-fighting measures

Fire Hazards in Presence of Various Substances : Highly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.
Slightly flammable in the presence of the following materials or conditions: oxidizing materials.
Non-flammable in the presence of the following materials or conditions: reducing materials, combustible materials and moisture.

Explosion Hazards in Presence of Various Substances : Highly explosive in the presence of the following materials or conditions: open flames, sparks and static discharge.

6 . Accidental release measures

Personal precautions : Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment.

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Methods for cleaning up : If emergency personnel are unavailable, contain spilled material. For small spills, add absorbent (soil may be used in the absence of other suitable materials), scoop up material and place in a sealable, liquid-proof container for disposal. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal.

7 . Handling and storage

Handling : Do not ingest. Do not get in eyes or on skin or clothing. Wash thoroughly after handling.

Storage : Keep container tightly closed. Keep container in a cool, well-ventilated area.

8 . Exposure controls/personal protection

Product name	Exposure limits
Formaldehyde	**OSHA (United States).** STEL: 2 ppm 8 hour/hours. **OSHA PEL (United States, 1995).** TWA: 0.75 ppm **OSHA action level (United States).** TWA: 0.5 ppm 8 hour/hours.

Consult local authorities for acceptable exposure limits.

Engineering measures : Use only with adequate ventilation. If user operations generate dust, fumes, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Personal protection

Eyes : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

Skin : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. 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 : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

8 . Exposure controls/personal protection

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

9 . Physical and chemical properties

Physical state : Liquid.

Flash point : The lowest known value is Closed cup: -18°C (-0.4°F). (T.C.C.). (2-Propanone)

Auto-ignition temperature : The lowest known value is 343°C (649.4°F) (1-Butanol).

Flammable limits : The greatest known range is Lower: 3.3% Upper: 19% (Ethanol)

pH : Neutral.

Boiling/condensation point : The lowest known value is 56.2°C (133.2°F) (2-Propanone). Weighted average: 107.34°C (225.2°F)

Melting/freezing point : May start to solidify at -43.8°C (-46.8°F) based on data for: 1,2,4-Trimethylbenzene. Weighted average: -86.75°C (-124.2°F)

Relative density : 0.9222 (Water = 1)

Vapor pressure : The highest known value is 24.1 kPa (181 mm Hg) (at 20°C) (2-Propanone). Weighted average: 4.62 kPa (34.65 mm Hg) (at 20°C)

Vapor density : The highest known value is 4 (Air = 1) (Acetic acid, 2-methylpropyl ester). Weighted average: 2.57 (Air = 1)

Evaporation rate : The highest known value is 1.4 (Acetic acid, 2-methylpropyl ester) Weighted average: 0.9compared with Butyl acetate.

Dispersibility properties : Not dispersible in cold water, hot water, methanol.
See solubility in methanol, diethyl ether, n-octanol, acetone.

Solubility : Easily soluble in methanol, diethyl ether, acetone.
Soluble in n-octanol.
Insoluble in cold water, hot water.

Physical/chemical properties comments : **California SCAQMD Rule 443: Contains Non-Photochemically Reactive Solvent.** The maximum VOC for this material (including thinners and hardeners if required) is listed on the Product Information Sheet furnished with this product.

10 . Stability and reactivity

Stability and reactivity : The product is stable.

Conditions of instability : Avoid contact with oxidizing agents. (Benzene, (1-methylethenyl)-)

Incompatibility with various substances : Highly reactive or incompatible with the following materials: oxidizing materials. Reactive or incompatible with the following materials: reducing materials, organic materials, metals, acids and alkalis.

11 . Toxicological information

Toxicity data

Product/ingredient name	Test	Result	Route	Species
1-Butanol	LD50	2510 mg/kg	Oral	Rat
	LD50	790 mg/kg	Oral	Rat
	LD50	5300 mg/kg	Dermal	Rabbit
	LD50	3400 mg/kg	Dermal	Rabbit
	LC50	8000 mg/l (4 hour/hours)	Inhalation	Rat
Xylenes	LD50	4300 mg/kg	Oral	Rat
2-Propanone	LD50	5800 mg/kg	Oral	Rat
	LD50	3000 mg/kg	Oral	Mouse
	LD50	20000 mg/kg	Dermal	Rabbit.
	LC50	50100 mg/m^3 (8	Inhalation	Rat

11 . Toxicological information

		hour/hours)		
	LC50	44000 mg/m^3 (4 hour/hours)	Inhalation	Mouse
1-Propanol, 2-methyl-	LD50	2500 mg/kg	Oral	Rat.
	LD50	3200 mg/kg	Oral	Mouse
	LD50	4200 mg/kg	Dermal	Rabbit.
Solvent naphtha (petroleum), light arom.	LD50	6960 mg/kg	Oral	Rat.
Ethanol	LD50	7060 mg/kg	Oral	Rat.
	LC50	8000 mg/l (4 hour/hours)	Inhalation	Rat.
Potential additional emission of formaldehyde	LD50	100 mg/kg	Oral	Rat
	LD50	270 mg/kg	Dermal	Rabbit
Formaldehyde	LD50	100 mg/kg	Oral	Rat
	LD50	270 mg/kg	Dermal	Rabbit
	LC50	250 mg/l (4 hour/hours)	Inhalation	Rat
	LC50	590 mg/l (4 hour/hours)	Inhalation	Rat

Chronic effects on humans : **CARCINOGENIC EFFECTS**: Classified A5 (Not suspected for humans.) by ACGIH, 4 (Probably not for humans.) by IARC, None. by OSHA [1-Butanol]. Classified A5 (Not suspected for humans.) by ACGIH, 4 (Probably not for humans.) by IARC, None. by OSHA [2-Propanone]. Classified D (Not classifiable for humans or animals.) by EPA [2-Propanone]. Classified A4 (Not classifiable for humans or animals.) by ACGIH [Ethanol]. Classified 1 (Proven for humans.) by IARC [Potential additional emission of formaldehyde]. Classified A2 (Suspected for humans.) by ACGIH, 2 (Reasonably anticipated to be human carcinogens.) by NTP [Potential additional emission of formaldehyde]. Classified 1 (Proven for humans.) by IARC [Formaldehyde]. Classified A2 (Suspected for humans.) by ACGIH, 2 (Reasonably anticipated to be human carcinogens.) by NTP [Formaldehyde].
TERATOGENIC EFFECTS: Classified None. for humans [2-Propanone].
Contains material which causes damage to the following organs: blood, kidneys, lungs, the nervous system, the reproductive system, liver.

Other toxic effects on humans : Hazardous in case of ingestion, of inhalation.
Slightly hazardous in case of skin contact (permeator).

Special remarks on toxicity to animals : Formaldehyde has caused cancer in test animals at high concentrations (5-15 ppm). (Potential additional emission of formaldehyde)

Special remarks on chronic effects on humans : Detected in maternal milk in human. (2-Propanol)

Special remarks on other toxic effects on humans : Exposure can cause nausea, headache and vomiting. (2-Propanol)

Specific effects

Carcinogenic effects : Contains material which can cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenic effects : No known significant effects or critical hazards.

Teratogenicity / Reproductive toxicity : No known significant effects or critical hazards.

12 . Ecological information

Environmental precautions : No known significant effects or critical hazards.

Octanol/water partition coefficient : The product is much more soluble in octanol.

Bioconcentration factor : Not available.

Products of degradation : These products are carbon oxides (CO, CO_2) and water. Some metallic oxides.

Toxicity of the products of biodegradation : The products of degradation are less toxic than the product itself.

13 . Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. 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 regional local authority requirements.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14 . Transport information

Regulatory information	UN number	Class	PG*	Label
TDG Classification	1263PAINT	3	II	

PG* : Packing group

15 . Regulatoryinformation

United States

HCS Classification : Highly toxic material
Carcinogen
Target organ effects

U.S. Federal regulations : SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: No products were found.
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: 2-Propanol: Fire hazard, Delayed (chronic) health hazard; Acetic acid, 2-methylpropyl ester: Fire hazard, Immediate (acute) health hazard; Benzene, ethyl-: Fire hazard, Immediate (acute) health hazard; Benzene, dimethyl-: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; 1-Propanol, 2-methyl-: Fire hazard, Delayed (chronic) health hazard; Isobutyl alcohol: Fire hazard, Delayed (chronic) health hazard

Clean Water Act (CWA) 307: Benzene, ethyl-

Clean Water Act (CWA) 311: No products were found.

Clean Air Act (CAA) 112 accidental release prevention: No products were found.

Clean Air Act (CAA) 112 regulated flammable substances: No products were found.

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

15 . Regulatoryinformation

State regulations : **WARNING:** This product contains chemical/chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.: Formaldehyde
WARNING: This product contains chemical/chemicals known to the state of California to cause reproductive harm (male).: Benzene
WARNING: This product contains chemical/chemicals known to the state of California to cause birth defects or other reproductive harm.: Benzene, methyl-; Benzene
WARNING: This product contains chemical/chemicals known to the state of California to cause cancer.: Benzene; Formaldehyde
Illinois toxic substances disclosure to employee act: Benzene, ethyl-
New York acutely hazardous substances: Benzene, ethyl-
Rhode Island RTK hazardous substances: Benzene, ethyl-
Pennsylvania RTK: Isopropyl alcohol; Acetic acid, 2-methylpropyl ester; Benzene, ethyl-; Benzene, dimethyl-; Benzene, methyl-; 1,2,4-Trimethylbenzene; Ethanol
Florida: Benzene, ethyl-
Minnesota: Benzene, ethyl-; Ethanol
Massachusetts RTK: Isopropyl alcohol; Acetic acid, 2-methylpropyl ester; Benzene, ethyl-; Ethanol
New Jersey: Isopropyl alcohol; Acetic acid, 2-methylpropyl ester; Benzene, ethyl-; Benzene, methyl-; 1,2,4-Trimethylbenzene; Ethanol
TSCA 8(b) inventory: Isopropyl alcohol; Acetic acid, 2-methylpropyl ester; Benzene, ethyl-; Benzene, dimethyl-; Benzene, methyl-; N-Butyl Alcohol; Ethanol
TSCA 8(d) H and S data reporting: Benzene, ethyl-
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: 2-Propanol: Fire hazard, Delayed (chronic) health hazard; Acetic acid, 2-methylpropyl ester: Fire hazard, Immediate (acute) health hazard; Benzene, ethyl-: Fire hazard, Immediate (acute) health hazard; Benzene, dimethyl-: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; 1-Propanol, 2-methyl-: Fire hazard, Delayed (chronic) health hazard; Isobutyl alcohol: Fire hazard, Delayed (chronic) health hazard
CERCLA: Hazardous substances.: Acetic acid, 2-methylpropyl ester; Benzene, ethyl-: 1000 lbs. (453.6 kg); Benzene, dimethyl-: 100 lbs. (45.36 kg); N-Butyl Alcohol; Acetone; 1-Propanol, 2-methyl-; Isobutyl alcohol;

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Acetic acid, 2-methylpropyl ester	No.	No.	No.	No.
Formaldehyde	Yes.	No.	No.	No.
Benzene, methyl-	No.	Yes.	No.	No.
Benzene	Yes.	Yes.	No.	No.

Canada

WHMIS (Canada) : Class B-2: Flammable liquid
Class D-2A: Material causing other toxic effects (Very toxic).
Class D-2B: Material causing other toxic effects (Toxic).

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

16 . Other information

Label requirements : EXTREMELY FLAMMABLE LIQUID AND VAPOR.
VAPOR MAY CAUSE FLASH FIRE.
CANCER HAZARD.
CONTAINS MATERIAL WHICH CAN CAUSE CANCER.
CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS:
BLOOD, KIDNEYS, LUNGS, NERVOUS SYSTEM, REPRODUCTIVE SYSTEM, LIVER.
MAY BE HARMFUL IF SWALLOWED.

Hazardous Material Information System (U.S.A.) :

Health	*	2
Fire hazard		3
Reactivity		0
Personal protection		G

* Indicates may be chronic effects

National Fire Protection Association (U.S.A.) :

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes 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 used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.