SAFETY DATA SHEET: Bison Paver Tray

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Section 1 – Product Information

Product Name	Bison Paver Tray/PT-Tray-(size)-4 3M™ Polyurethane Adhesive Sealant 550 Fast Cure (Various Colors) - Product Identification Number 62-5265-3430-0
Component Synonyms	Galvanized (Hot Dipped) Sheet—Carbon Steel; Galvannealed (Hot Dipped) Sheet—Carbon Steel; UPI.GalXC Sheet—Carbon Steel Fast curing., Sealant
Chemical Family	Natural Inorganic Products
Supplier's Details	**Manufacturer:** 3M **Division:** Industrial Adhesives and Tapes Division **Address:** 3M Center, St. Paul, MN 55144-1000, USA **Telephone:** 1-888-3M HELPS (1-888-364-3577) or (651) 737-6501 (24 hours)

Section 2 – Hazard(s) Identification

Hazard Identification

Carbon Steel: As sold, this product is not considered hazardous under Cal-OSHA 8CCR Section 5194 and OSHA 29 CFR Parts 1910.1200 Hazard Communication Standard, steel products are considered articles/ mixtures due to further processing which may produce dusts and/or fumes. However, individual customer processes, (such as welding, sawing, brazing, melting, grinding, abrasive blasting, and machining) may result in the formation of fumes, dust (combustible or otherwise), and/ or particulates which may present the following hazards:

OSHA Hazards:

Carcinogen
Skin Sensitizer
Target Organ Effect

Target Organs:

Respiratory system

GHS Classification:

Carbon Steel:

- Carcinogenicity (Category 2)
- Skin Sensitization (Category 1)
- Specific Target Organ Toxicity (STOT)-Repeated Exposure (Category 1)
- Specific Target Organ Toxicity (STOT)-Single Exposure (Category 3)
- Toxic to Reproduction (Category 2)
- Acute Toxicity-Oral (Category 4)
- Eye Irritation (Category 2B)

3M 550 FC:

- Respiratory Sensitizer: Category 1.
- Skin Sensitizer: Category 1A.
- Carcinogenicity: Category 2.
- Specific Target Organ Toxicity (single exposure): Category 1.
- Specific Target Organ Toxicity (repeated exposure): Category 1.

SIGNAL WORD: DANGER/WARNING

Hazard Statement(s):

May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
Suspected of causing cancer.
Suspected of damaging fertility or the unborn child.
Causes damage to lungs through prolonged or repeated inhalation exposure.
Harmful if swallowed.

	May cause respiratory irritation. Causes eye irritation. Causes damage to organs: sensory organs | Causes damage to organs through prolonged or repeated exposure: nervous system | May cause damage to organs through prolonged or repeated exposure: sensory organs | **Precautionary Statement(s):** Keep out of reach of children. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray. In case of inadequate ventilation wear respiratory protection. Wear protective gloves/ protective clothing/ eye protection/ face protection. Contaminated work clothing must not be allowed out of the workplace. Use only outdoors or in well ventilated areas. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. **Response:** IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. If in eyes: Rinse cautiously with water/ eye wash solution for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical advice/attention **Hazard(s) Not Otherwise Classified (HNOC):** None known. **Unknown Acute Toxicity Statement (mixture):** None known. These products do not contain asbestos. Under normal condition these products do not release hazardous materials after installation and are not considered hazardous. Waste and residues should be disposed of in accordance with local authority requirements. 2% of the mixture consists of ingredients of unknown acute dermal toxicity.

Section 3 – Composition/ Information on Ingredients

Product Component	Ingredient Name	CAS Number	Percentage by wt.
Tray-Base Metal	Iron	7439-89-6	>90.0
Tray-Alloying Elements	Calcium	7440-70-2	0.10 max.
	Carbon	7440-44-0	0.60 max.
	Copper	7440-50-8	0.50 max.
	Manganese	7439-96-5	0.90 max.
	Phosphorus	8049-19-2	0.15 max.
	Silicon	7440-21-3	0.60 max.
	Sulfur	7704-34-9	0.04 max.
Tray-Metallic Coating	Aluminum	7429-90-5	0.055 max.
	Antimony	7440-36-0	0.011 max.
	Iron	7439-89-6	0.8 max.
	Lead	7439-92-1	0.004 max.
	Zinc	7440-66-6	0.15-9.1
3M 550 FC	Urethane Polymer	Trade Secret*	25 - 35 Trade Secret *

3M 550 FC	Poly(Vinyl Chloride) Polymer	9002-86-2	20 - 35 Trade Secret *
	Plasticizer Mixture	Trade Secret*	10 - 30 Trade Secret *
	Xylene	1330-20-7	< 6 Trade Secret *
	Calcium Oxide	1305-78-8	1 - 5 Trade Secret *
	Titanium Dioxide	13463-67-7	< 3 Trade Secret *
	Ethylbenzene	100-41-4	< 2 Trade Secret *
	Petroleum Distillate	64742-47-8	< 2 Trade Secret *
	Carbon Black	1333-86-4	< 0.3 Trade Secret *
	P,P'-methylenebis(phenyl isocyanate)	101-68-8	< 0.2 Trade Secret *
	Bis(1,2,2,6,6-pentamethyl-4-piperidinyl) sebacate	41556-26-7	0.01 - 0.1 Trade Secret *

Notes: *Percent weight of metallic coating is a percent of the total product. Galvanized sheet surfaces may be chemically treated, with trace amounts of chromate solution (approx. 1-2 mg/ft^2 per side or 0.002% of total product weight) to prevent humid storage stain, and/ or phosphate solution (<300 mg/ft^2 or <0.3%) to enhance paint adherence and formability. Surface may also be treated with small amounts (<0.05%) of corrosion-inhibiting oil. All commercial steel products may contain small various elements in addition to those specified. These small quantities (less than 0.1%) may exist as intentional additions, or as "trace" or "residual" elements that generally originate in the raw materials used. These elements may include: aluminum, antimony, arsenic, boron, cadmium, calcium, chromium, cobalt, columbium, copper, lead, molybdenum, nickel, silicon, tin, titanium, vanadium, and zirconium. *The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

Section 4 – First-Aid Measures

Inhalation	This product as sold/ shipped is not a likely form of exposure as all constituents are encapsulated. However, during further processing (cutting, grinding, burning, etc.), potential exposure may occur. If inhaled and breathing becomes difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.
Eye Contact	This product as sold/ shipped is not a likely form of exposure. However, during further processing (cutting, grinding, burning, etc.), potential exposure may occur. Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.
Skin Contact	Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.
Ingestion	Rinse mouth. DO NOT induce vomiting. Get medical attention immediately. If ingestion of a large amount does occur, call a poison control center immediately.
Most important symptoms/ effects, acute and delayed	See Section 11 Information on toxicological effects. This product as sold/ shipped is not a likely form of exposure as all constituents are encapsulated. However, during further processing (cutting, grinding, burning, etc.), potential exposure may occur. Breathing or swallowing dusts/ fumes may cause irritation to the nose, throat, and digestive tract. Repeated exposure to dusts/ particulates could expose individuals to constituents including Lead which is known to the state of California to cause Male and Female developmental issues.
Indication of immediate medical attention and special treatment needed	Treat symptomatically. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Section 5 – Fire-Fighting Measures

Suitable extinguishing media	Foam. Dry Chemical Powder. Carbon Dioxide (CO2).
Unsuitable extinguishing media	Water. Do not use jet as an extinguisher, as this will spread the fire.
Special hazards arising from the chemical	Metallic coating will begin to melt around 800°F (427°C) and the metal will begin to melt around 2750°F (1510°C). This product will proceed to a liquid and will form irritating and toxic gaseous metallic oxides at extremely high temperatures.

Unusual fire or explosion hazards	Not applicable for solid product. **DO NOT** use water on molten metal.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and self-contained breathing apparatus (SCBA). Structural firefighter's protective clothing will only provide limited protection.
Fire-fighting equipment/ instructions	Use standard fire-fighting procedures and consider the hazards of other involved materials. DO NOT breathe fumes.
Hazardous Decomposition or By-Products (3M 550 FC)	Substance: Condition Carbon monoxide: During Combustion Carbon dioxide: During Combustion Hydrogen Cyanide: During Combustion Oxides of Nitrogen: During Combustion Oxides of Sulfur: During Combustion

Section 6 – Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.
Environmental precautions	Avoid release to the environment. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water.
Spill/ Leak Procedures	Not applicable for this product as sold/ shipped. For spills involving finely divided particles, clean-up personnel should be protected against contact with eyes and skin. If material is in a dry state, avoid inhalation of dust. Fine, dry material should be removed by vacuuming or wet sweeping methods to prevent spreading of dust. Avoid using compressed air. Do not release into sewers or waterways. Collect material in appropriate, labeled containers for recovery and/ or disposal in accordance with federal, state, and local regulations. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. Dispose of collected material as soon as possible.
Regulatory Requirements	Follow applicable OSHA regulations (29 CFR 1910.120 and Cal-OSHA 8CCR 5192) and all other pertinent state and federal requirements.
Disposal	Follow applicable federal, state, and local regulations.

Section 7 – Handling and Storage

Precautions for safe handling	Trays can become very hot when sitting in the sun. Use caution when handling and always wear gloves. Avoid prolonged exposure to dusts/ fumes and control exposure as necessary. Cut only in well ventilated areas. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Use personal protective equipment (gloves, respirators, etc.) as required.
Conditions for safe storage	Store away from acids and incompatible materials (section 10 of the SDS). Keep container tightly closed to prevent contamination with water or air. If contamination is suspected, do not reseal container. Protect from sunlight. Store away from heat. Store away from amines.

Section 8 – Exposure Control Measures / Personal Protection

Product Component	Ingredient Name	CAS Number	Cal-OSHA PEL[1]	OSHA PEL[1]	ACGIH TLV[2]
Tray-Base Metal	Iron	7439-89-6	5 mg/m^3-Iron Oxide fume	10 mg/m^3-Iron Oxide fume	5 mg/m^3-Iron Oxide dust and fume
Tray-Alloying Elements	Calcium	7440-70-2	2 mg/m^3-Calcium Oxide	5 mg/m^3-Calcium Oxide	2 mg/m^3-Calcium Oxide

Tray-Alloying Elements	Carbon	7440-44-0	10 mg/m^3-Total dust (PNOR)[3] 2 mg/m^3 – Respirable fraction (PNOR)	15 mg/m^3-Total dust (PNOR)[3] 5 mg/m^3 – Respirable fraction (PNOR)	10 mg/m^3-Inhale fraction[4] (PNOS)[5] 3 mg/m^3 – Respirable fraction[6] (PNOS)
	Copper	7440-50-8	0.1 mg/m^3-Fume (as Cu) 1 mg/m^3 – Dusts & mists (as Cu)	0.1 mg/m^3-Fume (as Cu) 1 mg/m^3 – Dusts & mists (as Cu)	0.2 mg/m^3-Fume 1 mg/m^3 – Dusts & mists (as Cu)
	Manganese	7439-96-5	0.2 mg/m^3 (C)-Fume & Mn compounds	0.5 mg/m^3 (C)-Fume & Mn compounds	0.2 mg/m^3
	Phosphorus	8049-19-2	10 mg/m^3-Total dust (PNOR) 5 mg/m^3 – Respirable fraction (PNOR)	15 mg/m^3-Total dust (PNOR) 5 mg/m^3 – Respirable fraction (PNOR)	10 mg/m^3-Total dust (PNOS) 3 mg/m^3 – Respirable fraction (PNOS)
	Silicon	7440-21-3	10 mg/m^3-Total dust 5 mg/m^3 – Respirable fraction	10 mg/m^3-Total dust 5 mg/m^3 – Respirable fraction	10 mg/m^3
	Sulfur	7704-34-9	10 mg/m^3-Total dust (PNOR) 5 mg/m^3 – Respirable fraction (PNOR)	15 mg/m^3-Total dust (PNOR) 5 mg/m^3 – Respirable fraction (PNOR)	10 mg/m^3-Inhalable fraction (PNOS) 3 mg/m^3 – Respirable fraction (PNOS)
Tray-Metallic Coating	Aluminum	7429-90-5	10 mg/m^3-Aluminum metal & oxide total dust 5 mg/m^3 – Respirable fraction	15 mg/m^3-Total dust 5 mg/m^3 – Respirable fraction	10 mg/m^3-Metal dust 5 mg/m^3 – Welding fume
	Antimony	7440-36-0	0.5 mg/m^3	0.5 mg/m^3	0.5 mg/m^3
	Iron	7439-89-6	5 mg/m^3-Iron Oxide fume	10 mg/m^3-Iron Oxide fume	5 mg/m^3-Iron Oxide dust and fume
	Lead	7439-92-1	0.05 mg/m^3 [7]	0.05 mg/m^3 [7]	0.05 mg/m^3 [7]
	Zinc	7440-66-6	5 mg/m^3-Fume 10 mg/m^3 – Total Dust 5 mg/m^3 – Respirable fraction	5 mg/m^3-Fume 15 mg/m^3 – Total Dust 5 mg/m^3 – Respirable fraction	5 mg/m^3-Fume 10 mg/m^3 – Fume (STEL) 10 mg/m^3 – Dust
Product Component	**Ingredient Name**	**CAS Number**	**Agency**	**Limit Type**	**Additional Comments**
3M 550 FC	Ethylbenzene	100-41-4	CMRG	TWA:25 ppm; STEL:75 ppm	
	Ethylbenzene	100-41-4	OSHA	TWA:435 mg/m3 (100 ppm)	
	Ethylbenzene	100-41-4	ACGIH	TWA:20 ppm	A3: Confirmed animal carcinogen
	P,P'-methylenebis (phenylisocyanate)	101-68-8	OSHA	CEIL:0.2 mg/m3 (0.02 ppm)	
	Free Isocyanates	101-68-8	Manufacturer determined	TWA:0.005 ppm; STEL:0.02 ppm	
	P,P'-methylenebis (phenylisocyanate)	101-68-8	ACGIH	TWA:0.005 ppm	
	Calcium Oxide	1305-78-8	OSHA	TWA:5 mg/m3	
	Calcium Oxide	1305-78-8	ACGIH	TWA:2 mg/m3	

3M 550 FC	Xylene	1330-20-7	OSHA	TWA:435 mg/m3 (100 ppm)	
	Xylene	1330-20-7	CMRG	TWA:50 ppm; STE:75 ppm	
	Xylene	1330-20-7	ACGIH	TWA:100 ppm; STEL:150 ppm	A4: Not class. as human carcinogen
	Carbon Black	1333-86-4	CMRG	TWA:0.5 mg/m3	
	Carbon Black	1333-86-4	OSHA	TWA:3.5 mg/m3	
	Carbon Black	1333-86-4	ACGIH	TWA (inhalable fraction):3 mg/m3	A3: Confirmed animal carcinogen
	Titanium Dioxide	13463-67-7	ACGIH	TWA:10 mg/m3	A4: Not class. as human carcinogen
	Titanium Dioxide	13463-67-7	CMRG	TWA (as respirable dust):5 mg/m3	
	Titanium Dioxide	13463-67-7	OSHA	TWA (as total dust):15 mg/m3	
	Bis (1,2,2,6,6-pentamethyl-4-piperidinyl) sebacate	41556-26-7	CMRG	TWA:1 mg/m3	
	Kerosine (petroleum)	64742-47-8	ACGIH	TWA (as total hydrocarbon vapor, non-aerosol):200 mg/m3	A3: Confirmed animal carcinogen., Skin Notation
	Jet Fuels (non-aerosol, as total Hydrocarbon Vapor	64742-47-8	ACGIH	TWA (as total hydrocarbon vapor, non-aerosol):200 mg/m3	A3: Confirmed animal carcinogen., Skin Notation
	Petroleum Distillate	64742-47-8	CMRG	TWA:165 ppm	
	Poly (Vinyl Chloride) Polymer	9002-86-2	ACGIH	TWA (respirable fraction):1 mg/m3	A4: Not class. as human carcinogen

[1]OSHA Permissible Exposure Limits (PELs) are 8-hour TWA (time-weighted average) concentrations unless otherwise noted. A ("C") designation denotes a ceiling limit, which should not be exceeded during any part of the working exposure unless otherwise noted. A Short Term Exposure Limit (STEL) is defined as a 15-minute exposure, which should not be exceeded at any time during the workday.
[2]Threshold Limit Values (TLV) established by the American Conference of Governmental Industrial Hygienists (ACGIH) are 8-hour TWA concentrations unless otherwise noted.
[3]PNOR (Particulates Not Otherwise Regulated). All inert or nuisance dusts, whether mineral, inorganic, or organic, not listed specifically by substance name are covered by the PNOR limit which is the same as the inert or nuisance dust limit of 15 mg/m^3 for total dust and 5 mg/m^3 for the respirable fraction.
[4]Inhalable fraction. The concentration of inhalable particulate for the application of this TLV is to be determined from the fraction passing a size-selector with the characteristics defined in ACGIH TLVs and BEIs Appendix D, paragraph C.
[5]PNOS (Particulates Not Otherwise Specified). Particulates identified under the PNOS heading are "nuisance dusts" containing no asbestos and <1% crystalline silica. A TWA-TLV of 10 mg/m^3 for inhalable particulate and 3 mg/m^3 for respirable particulate has been recommended.
[6]Respirable fraction. The concentration of respirable dust for the application of this limit is to be determined from the fraction passing a size-selector with the characteristics defined in the ACGIH TLVs and BEIs Appendix D, paragraph C.
[7]The 8-hour PEL is 50 µg/m^3. If an employee is exposed to lead for more than 8 hours in any work day, the PEL as a TWA for that day, shall be reduced according to the following formula: Maximum permissible limit (in µg/m^3) = 400 divided by hours worked in that day. The Action Level is 30 µg/m^3 averaged over an 8-hour period.
ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
CMRG : Chemical Manufacturer's Recommended Guidelines
OSHA : United States Department of Labor - Occupational Safety and Health Administration
TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit CEIL: Ceiling	
Biological Limit Values	No biological exposure limits noted for the ingredient(s).
Engineering Controls	Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.
Administrative Controls	Do not use compressed air to clean-up dust or particles generated by grinding, sawing, or cutting operations.

Personal Protective Equipment	**Eyes**	**Skin/Hand**	**Other**	**Respiratory**
	Use of safety glasses with side shields or goggles required for any cutting, grinding, drilling, etc. operation. A face shield may also be required depending on the circumstance.	Wear suitable gloves to prevent contact, cuts and abrasions. Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity. Gloves made from the following material(s) are recommended: Polymer laminate.	Wear appropriate clothing to prevent any possibility of contact to undesired parts of the body.	Not normally required. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fumes at levels exceeding the exposure limits. Seek professional advice prior to respirator selection and use. Follow Cal-OSHA and Federal OSHA respiratory regulations (8CCR Section 5144; 29 CFR 1910.134) and, if necessary, wear a NIOSH-Approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure: Half facepiece or full facepiece air-purifying respirator suitable for organic vapors and particulates.
Thermal Hazards	When material is heated, wear gloves to protect against thermal burns. Be aware that the adhesive will soften to a liquid form as it heats up.			
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. For questions about suitability for a specific application, consult with your respirator manufacturer.			

Section 9 – Physical and Chemical Properties

TRAY		
Physical State: Solid	**Flammability Classification:** Non-flammable, non-combustible	**Surface Tension:** N/A
Appearance and Odor: Metallic Gray, Odorless	**LEL:** N/A	**Vapor Pressure:** N/A
Odor Threshold: N/A	**UEL:** N/A	**Vapor Density (Air=1):** N/A
Formula Weight: N/A	**Auto-Ignition Temperature:** N/A	**pH:** N/A
Density: 7.85 g/cc	**Water Solubility:** Insoluble	**% Volatile:** N/A
Specific Gravity (H_2O=1, at 4°C): 7.85	**Other Solubilities:** N/A	**Evaporation Rate:** N/A

Flash Point: N/A	**Boiling Point:** N/A	**Freezing/ Melting Point:** Base Metal - 2750°F Metallic Coating – 800-900°F
Flash Point Method: N/A	**Viscosity:** N/A	
Burning Rate: N/A	**Refractive Index:** N/A	

3M 550 FC		
Physical State: Solid	**LEL:** N/A	**Viscosity:** >=300,000 centipoise [@73.4°F]
Appearance and Odor: Paste, Mild Xylene Odor	**UEL:** N/A	**Hazardous Air Pollutants:** 7.3% weight [*Test Method*: Calculated]
Odor Threshold: N/A	**Vapor Pressure:** N/A	**VOC Less H2O & Exempt Solvents:** 55 g/l [*Test Method*: tested per EPA method 24]
pH: N/A	**Vapor Density (Air=1):** N/A	**Solids Content:** 91-95.4% weight
Melting Point: N/A	**Density:** 1.2 g/ml	**Partition coefficient: n-octanol/ water:** N/A
Boiling Point: >=137°C	**Specific Gravity (H_2O=1, at 4°C):** 1.2	**Decomposition temperature:** N/A
Flash Point: No Flash Point	**Water Solubility:** Nil	
Evaporation Rate: N/A	**Other Solubilities:** N/A	
Flammability Classification: Not Classified	**Auto-Ignition Temperature:** >=200°C	

Section 10 – Stability and Reactivity

Stability & Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport. This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.
Polymerization	Hazardous reactions or polymerization will not occur.
Chemical Incompatibilities	Will react with strong acids to form hydrogen. Iron oxide dusts in contact with calcium hypochlorite evolve oxygen and may cause an explosion. Amines, Alcohols, Water.
Conditions to Avoid	Storage with strong acids or calcium hypochlorite. Heat.
Hazardous Decomposition Products	Thermal oxidative decomposition of galvanized steel products can produce fumes containing oxides of zinc, iron, and manganese as well as other elements.

Section 11 – Toxicological Information – Information on likely exposure routes

Ingestion	As sold and under normal use this product does not present an ingestion, inhalation, skin, or eye hazard. However, during further processing (cutting, grinding, burning, etc.), potential exposure may occur from dust or fumes. **Ingestion** of dust generated may cause nausea or vomiting. Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea. May cause additional health effects (see below). **Inhalation** of dusts, fumes, or metal oxides generated during processing especially in high concentrations can produce symptoms of metal fever. Typical symptoms last 12-48 hours and are characterized by metallic taste in the mouth, dryness, and irritation of the throat, followed by weakness, muscle pain, fever, and chills. Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. Allergic Respiratory Reaction: Signs/symptoms may include difficulty breathing, wheezing, cough, and tightness of chest. May cause additional health effects (see below). Dust may **irritate the skin**, and contact with hot material can cause thermal burns which may result in permanent damage. Repeated or prolonged contact with chemical surface treatments or oil residue may cause skin irritation, dermatitis, ulceration, or allergic reactions in sensitized individuals. Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness. Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching. Dust or fumes produced during further processing may **irritate the eyes**, as can direct contact to the eye from a piece of heated metal or the adhesive. Heating steel products with surface treatments, oil coatings, or acrylic films may produce emissions which may irritate the eyes. 3M 550 FC contact with the eyes during product use is not expected to result in significant irritation.
Inhalation	
Skin Contact	
Eye Contact	

Symptoms related to the physical, chemical, and toxicological characteristics	Symptoms may include itching, burning, redness, and tearing of the eyes. Mechanical irritation of the skin. Heating above the melting point releases metallic oxides which may cause metal fume fever by inhalation. The symptoms are shivering, fever, malaise and muscular pain. Directly contacting the adhesive to one's eyes may cause temporary irritation.		
Acute Exposure	Cutting the trays can potentially generate ozone. Ozone can cause irritation of eyes, nose, and respiratory tract. Auditory Effects: Signs/symptoms may include hearing impairment, balance dysfunction and ringing in the ears.		
Tray (Acute Exposure)	**Iron (CAS 7439-89-6)** *Oral*	Rat	LD50 30 g/kg
	Manganese (CAS 7439-96-5) Oral	Rat	LD50 9 g/kg
3M 550 FC (Acute Exposure)	**Overall product** Dermal		No data available; calculated ATE > 5,000 mg/kg
	Overall product Inhalation-Vapor (4hr)		No data available; calculated ATE > 50 mg/l
	Overall product Ingestion		No data available; calculated ATE > 5,000 mg/kg
	Urethane Polymer Ingestion	Rat	LD50 > 5,000 mg/kg
	Poly(Vinyl Chloride) Polymer Dermal		LD50 estimated to be > 5,000 mg/kg
	Poly(Vinyl Chloride) Polymer Ingestion		LD50 estimated to be > 5,000 mg/kg
	Xylene Dermal	Rabbit	LD50 > 4,200 mg/kg
	Xylene Inhalation-Vapor (4hr)	Rat	LC50 29 mg/l
	Xylene Ingestion	Rat	LD50 3,523 mg/kg
	Titanium Dioxide Dermal	Rabbit	LD50 > 10,000 mg/kg
	Titanium Dioxide Inhalation-Vapor (4hr)	Rat	LC50 > 6.82 mg/l
	Titanium Dioxide Ingestion	Rat	LD50 > 10,000 mg/kg
	Calcium Oxide Ingestion	Rat	LD50 > 2,500 mg/kg
	Ethylbenzene Dermal	Rabbit	LD50 15,433 mg/kg
	Ethylbenzene Inhalation-Vapor (4hr)	Rat	LC50 17.4 mg/l
	Ethylbenzene Ingestion	Rat	LD50 4,769 mg/kg
	Petroleum Distillate Dermal	Rabbit	LD50 > 3,160 mg/kg
	Petroleum Distillate Inhalation-Vapor (4hr)	Rat	LC50 > 3 mg/l
	Petroleum Distillate Ingestion	Rat	LD50 > 5,000 mg/kg
	Carbon Black Dermal	Rabbit	LD50 > 3,000 mg/kg
	Carbon Black Ingestion	Rat	LD50 > 8,000 mg/kg
	P,P'-methylenebis(phenyl isocyanate) Inhalation-Vapor		LC50 estimated to be 10 - 20 mg/l
	P,P'-methylenebis(phenyl isocyanate) Dermal	Rabbit	LD50 > 5,000 mg/kg
	P,P'-methylenebis(phenyl isocyanate) Inhalation-Dust/Mist (4hr)	Rat	LC50 0.369 mg/l
	P,P'-methylenebis(phenyl isocyanate) Ingestion	Rat	LD50 31,600 mg/kg
	Bis(1,2,2,6,6-pentamethyl-4-piperidinyl) sebacate Ingestion	Rat	LD50 3,125 mg/kg

Skin corrosion/ irritation	Contact with dusts or particulates produced by cutting, grinding, drilling may be abrasive and mildly irritate the skin. Particulates may cause a red-brown pigmentation of the skin following repeated or prolonged exposure.		
	Poly(Vinyl Chloride) Polymer	Professional judgement	No significant irritation
	Xylene	Rabbit	Mild irritant
	Titanium Dioxide	Rabbit	No significant irritation
	Calcium Oxide	Human	Corrosive
	Ethylbenzene	Rabbit	Mild irritant
	Petroleum Distillate	Rabbit	Mild irritant
	Carbon Black	Rabbit	No significant irritation
	P,P'-methylenebis(phenyl isocyanate)	Official Classification	Irritant
	Bis(1,2,2,6,6-pentamethyl-4-piperidinyl) sebacate	Rabbit	No significant irritation
Serious eye damage/ eye irritation	Contact with dusts or particulates produced by cutting, grinding, drilling may be abrasive and irritate the eyes causing stinging, redness, and watering.		
	Overall product	Rabbit	Mild irritant
	Xylene	Rabbit	Mild irritant
	Titanium Dioxide	Rabbit	No significant irritation
	Calcium Oxide	Rabbit	Corrosive
	Ethylbenzene	Rabbit	Moderate irritant
	Petroleum Distillate	Rabbit	Mild irritant
	Carbon Black	Rabbit	No significant irritation
	P,P'-methylenebis(phenyl isocyanate)	Official Classification	Severe irritant
	Bis(1,2,2,6,6-pentamethyl-4-piperidinyl) sebacate	Rabbit	No significant irritation
Respiratory Sensitization	P,P'-methylenebis(phenyl isocyanate)	Human	Sensitizing
Skin Sensitization	Titanium Dioxide	Human and animal	Not sensitizing
	Ethylbenzene	Human	Not sensitizing
	Petroleum Distillate	Guinea pig	Not sensitizing
	P,P'-methylenebis(phenyl isocyanate)	Official Classification	Sensitizing
	Bis(1,2,2,6,6-pentamethyl-4-piperidinyl) sebacate	Guinea pig	Sensitizing
Germ Cell Mutagenicity	Poly(Vinyl Chloride) Polymer	In Vitro	Not Mutagenic
	Xylene	In Vitro	Not Mutagenic
	Xylene	In Vitro	Not Mutagenic
	Titanium Dioxide	In Vitro	Not Mutagenic

	Titanium Dioxide	In Vitro	Not Mutagenic
	Calcium Oxide	In Vitro	Not Mutagenic
	Ethylbenzene	In Vitro	Not Mutagenic
	Ethylbenzene	In Vitro	Some positive data exists, but the data is not sufficient for classification.
	Petroleum Distillate	In Vitro	Not Mutagenic
	Carbon Black	In Vitro	Not Mutagenic
	Carbon Black	In Vitro	Some positive data exists, but the data is not sufficient for classification.
	P,P'-methylenebis(phenyl isocyanate)	In Vitro	Some positive data exists, but the data is not sufficient for classification.
	Bis(1,2,2,6,6-pentamethyl-4-piperidinyl) sebacate	In Vitro	Not Mutagenic
Carcinogenicity	The International Agency for Research on Cancer (IARC), the National Laboratory Toxicology Program (NTP), and OSHA do not list steel products as carcinogens. IARC identifies lead and welding fumes as group 2B carcinogen (possibly carcinogenic to humans). EPA lists lead as Group B2 (probable human carcinogen) based on a combination of sufficient evidence in animals and inadequate evidence in humans. When specified, a hexavalent chromium passivation treatment is applied to the product surface. IARC lists hexavalent chromium compounds as Group 1 (sufficient evidence for carcinogenicity in humans). NTP lists certain hexavalent chromium compounds as Group 1 (known to be carcinogenic). The American Conference of Governmental Industrial Hygienists (ACGIH) lists hexavalent chromium compounds as A1 (confirmed human carcinogen). Carbon Black (CAS 1333-86-4) Grp. 2B: Possible human carc. International Agency for Research on Cancer Ethylbenzene (CAS 100-41-4) Grp. 2B: Possible human carc. International Agency for Research on Cancer Titanium Dioxide (13463-67-7) Grp. 2B: Possible human carc. International Agency for Research on Cancer		
	Poly(Vinyl Chloride) Polymer Not Specified	Rat	Some positive data exist, but the data are not sufficient for classification
	Xylene Dermal	Rat	Not carcinogenic
	Xylene Ingestion	Multiple animal species	Not carcinogenic
	Xylene Inhalation	Human	Some positive data exist, but the data are not sufficient for classification
	Titanium Dioxide Ingestion	Multiple animal species	Not carcinogenic
	Titanium Dioxide Inhalation	Rat	Carcinogenic
	Ethylbenzene Inhalation	Multiple animal species	Carcinogenic
	Petroleum Distillate Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
	Carbon Black Dermal	Mouse	Not carcinogenic
	Carbon Black Ingestion	Mouse	Not carcinogenic
	Carbon Black Inhalation	Rat	Carcinogenic
	P,P'-methylenebis(phenyl isocyanate) Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification

Reproductive Toxicity	Manganese and lead are constituents and have demonstrated some effects on the male and female reproductive system. The expected exposure is not sufficient enough to classify the material as a reproductive hazard.				
(Reproductive and/or Developmental Effects)	**Poly(Vinyl Chloride) Polymer** Not Specified	Not toxic to development	Mouse	NOAEL Not available	during gestation
	Xylene Dermal	Some positive female reproductive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
	Xylene Dermal	Some positive female reproductive data exist, but the data are not sufficient for classification	Mouse	NOAEL Not available	during organogenesis
	Xylene Dermal	Some positive female reproductive data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL Not available	during gestation
	Ethylbenzene Inhalation	Some positive female reproductive data exist, but the data are not sufficient for classification	Rat	NOAEL 4.3 mg/l	premating & during gestation
	P,P'-methylenebis(phenyl isocyanate) Inhalation	Some positive female reproductive data exist, but the data are not sufficient for classification	Rat	NOAEL 0.004 mg/l	during organogenesis
(Lactation)	**Xylene** Ingestion	Mouse		Does not cause effects on or via lactation.	
Specific Target Organ Toxicity-Single Exposure	**Xylene** Inhalation	Auditory system; Causes damage to organs	Rat	LOAEL 6.3 mg/l 8 hours	
	Xylene Inhalation	Central nervous system depression; May cause drowsiness or dizziness	Human	NOAEL Not available	
	Xylene Inhalation	Respiratory irritation; Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
	Xylene Inhalation	Eyes; Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 3.5 mg/l	
	Xylene Inhalation	Liver; Some positive data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL Not available	
	Xylene Ingestion	Central nervous system depression; May cause drowsiness or dizziness	Multiple animal species	NOAEL Not available	
	Xylene Ingestion	Eyes; Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 250 mg/kg	
	Calcium Oxide Inhalation	Respiratory irritation; May cause respiratory irritation	N/A	NOAEL Not available Occupational exposure	
	Ethylbenzene Inhalation	Central nervous system depression; May cause drowsiness or dizziness	Human	NOAEL Not available	
	Ethylbenzene Inhalation	Respiratory irritation; Some positive data exist, but the data are not sufficient for classification	Human and animal	NOAEL Not available	

Specific Target Organ Toxicity-Single Exposure	**Ethylbenzene** Ingestion	Central nervous system depression; May cause drowsiness or dizziness	Professional Judgement	NOAEL Not available
	Petroleum Distillate Inhalation	Central nervous system depression; May cause drowsiness or dizziness	Human and animal	NOAEL Not available
	Petroleum Distillate Inhalation	Respiratory irritation; Some positive data exist, but the data are not sufficient for classification		NOAEL Not available
	Petroleum Distillate Ingestion	Central nervous system depression; May cause drowsiness or dizziness	Professional Judgement	NOAEL Not available
	P,P'-methylenebis(phenyl isocyanate) Inhalation	Respiratory irritation; May cause respiratory irritation	Official Classification	NOAEL Not available
Specific Target Organ Toxicity-Repeated Exposure	**Poly(Vinyl Chloride) Polymer** Inhalation	Respiratory system; Some positive data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL 0.013 mg/l 22 months
	Xylene Inhalation	Nervous system; Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.4 mg/l 4 weeks
	Xylene Inhalation	Auditory system; May cause damage to organs though prolonged or repeated exposure	Rat	LOAEL 7.8 mg/l 5 days
	Xylene Inhalation	Liver; Some positive data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL Not available
	Xylene Inhalation	heart | endocrine system | hematopoietic system | muscles | kidney and/or bladder | respiratory system All data are negative	Multiple animal species	NOAEL 3.5 mg/l 13 weeks
	Xylene Ingestion	Auditory system; Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 900 mg/kg/day 2 weeks
	Xylene Ingestion	Kidney and/or bladder; Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1,500 mg/kg/day 90 days
	Xylene Ingestion	Liver; Some positive data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL Not available
	Xylene Ingestion	heart | skin | endocrine system | bone, teeth, nails, and/or hair | hematopoietic system | immune system | nervous system | respiratory system - All data are negative	Mouse	NOAEL 1,000 mg/kg/day 103 weeks
	Titanium Dioxide Inhalation	Respiratory system; Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 0.01 mg/l 2 years
	Titanium Dioxide Inhalation	Pulmonary fibrosis; All data are negative	Human	NOAEL Not available Occupational exposure

Specific Target Organ Toxicity-Repeated Exposure	**Ethylbenzene** Inhalation	Kidney and/or bladder; Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1.1 mg/l 2 years
	Ethylbenzene Inhalation	Liver; Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 1.1 mg/l 103 weeks
	Ethylbenzene Inhalation	Hematopoietic system; Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 3.4 mg/l 28 days
	Ethylbenzene Inhalation	Auditory system; Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 2.4 mg/l 5 days
	Ethylbenzene Inhalation	Endocrine system; Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 3.3 mg/l 103 weeks
	Ethylbenzene Inhalation	bone, teeth, nails, and/or hair | muscles All data are negative	Multiple animal species	NOAEL 4.2 mg/l 90 days
	Ethylbenzene Inhalation	heart | immune system | respiratory system All data are negative	Multiple animal species	NOAEL 3.3 mg/l 2 years
	Ethylbenzene Ingestion	liver | kidney and/or bladder; Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 680 mg/kg/day 6 months
	Carbon Black Inhalation	Pneumoconiosis; Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available Occupational exposure
	P,P'-methylenebis(phenyl isocyanate) Inhalation	Respiratory system; Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.004 mg/l 13 weeks
Aspiration Hazard	Xylene: Aspiration hazard Ethylbenzene: Aspiration hazard Petroleum Distillate: Aspiration hazard			
Chronic Exposure	Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases. Exposure to manganese fume/ dust can affect the central nervous system (apathy, drowsiness, weakness, and other chronic symptoms such as postural tremors). Auditory Effects: Signs/symptoms may include hearing impairment, balance dysfunction and ringing in the ears. Neurological Effects: Signs/symptoms may include personality changes, lack of coordination, sensory loss, tingling or numbness of the extremities, weakness, tremors, and/or changes in blood pressure and heart rate.			
Further Information	In its manufactured and shipped state, this product is considered non-hazardous. Processing may generate hazardous fumes and dusts and may affect those with chronic respiratory disorders (I,=.e., asthma, chronic bronchitis, emphysema, etc.). **Manganese CAS# 7439-96-5** Repeated administration of manganese resulted in limited evidence of male reproductive effects in laboratory animals. The adverse effects included decreased spermatids, spermatocytes and degeneration of seminiferous tubules. Chronic administration of certain inorganic manganese salts has resulted in limited evidence of central nervous system effects in laboratory animals. The effects included degenerative changes in basal ganglionic cells. These effects do not meet the criteria for classifying it as a reproductive toxicant. **Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.**			

Section 12 – Ecological Information

Ecotoxicity (aquatic & terrestrial)	Individual components of the product when tested have been found to be toxic to the environment. Metal dusts may migrate into the soil and groundwater and be ingested by wildlife as follows. Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.		
	Iron (CAS 7439-89-6) Aquatic *Fish* LC50	Channel catfish (Ictalurus punctatus)	>500mg/l, 96 hours
	Zinc (CAS 7440-66-6) Aquatic *Fish* LC50	Rainbow trout, Donaldson Trout (Oncorhynchus mykiss)	0.24 mg/l, 96 hours
Environmental Fate	No data available.		
Environmental Degradation	No data available.		
Bio accumulative potential	No data available.		
Soil Absorption/ Mobility	No data available for the product. However, individual components of the product have been found to be absorbed by plants from soil.		
Mobility in general	Not relevant due to the form of the product. No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this product. This product does not contain any of the controlled substances listed in the Annexes to the Montreal Protocol at concentrations of ≥ 0.1%.		

Section 13 – Disposal Considerations

Disposal	Dispose of contents/ container in accordance with the local/regional/national/international regulations. Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.
Container cleaning and disposal	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may contain residual products, follow label warnings even after the container is emptied. Dispose of in accordance with applicable federal, state, and local regulations.

Section 14 – Transport Information

The DOT, IATA, and IMDG do NOT regulate this product as a dangerous good. For Transport Information, please visit http://3M.com/Transport info or call 1-800-364-3577 or 651-737-6501.

Section 15 – Regulatory Information

OSHA Regulations	Under some use conditions, this material may be considered hazardous in accordance with OSHA 29 CFR 1910.1200. Air contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A): The product as a whole is not listed. However individual components of the product are listed. OSHA Specifically Regulated Substance: Lead (29 CFR 1910.1025). This material has not been identified as a carcinogen by NTP, IARC, or OSHA.
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)	The components of this product are in compliance with the chemical notification requirements of TSCA. Contact manufacturer for more information.
CERCLA Hazardous Substance List (40 CFR 302.4)	The product as a whole is not listed. However, individual components of the product are listed: Antimony (CAS 7440-36-0) LISTED Copper (CAS 7440-50-8) LISTED Lead (CAS 7439-92-1) LISTED Manganese (CAS 7439-96-5) LISTED Zinc (CAS 7440-66-6) LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)	Immediate Hazard-No Delayed Hazard-No Fire Hazard-No Pressure Hazard-No Reactivity Hazard-No		
SARA 302 Extremely hazardous substance	Not listed.		
SARA 311/312 Hazardous chemical	Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No Immediate Hazard - Yes Delayed Hazard - Yes		
SARA 313 (TRI reporting)	Chemical Name:	CAS Number:	% by wt.
	Antimony	7440-36-0	0.011 max.
	Copper	7440-50-8	0.50 max.
	Lead	7439-92-1	0.004 max.
	Zinc	7440-66-6	0.5-19.0
	Manganese	7439-96-5	0.0-1.35
	Xylene	1330-20-7	<6
	Ethylbenzene	100-41-4	<2
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List	Manganese (CAS 7439-96-5)		
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)	Not regulated.		
Safe Drinking Water Act (SDWA)	Not regulated.		
RCRA (40CFR261)	Steel scrap is not regulated as a solid waste or a hazardous waste under this act. If product dusts and/ or fumes from processing operations are not recycled, they are considered to be a solid waste and may be classified as a hazardous waste depending on the toxicity characteristics of the dust as defined within 40CFR261.24.		

State Regulations

This product as a whole is not listed in any state regulations. However, individual components of the product are listed in various state regulations.

- Massachusetts Right-to-Know – Substance List
  - Aluminum (CAS 7429-90-5)
  - Antimony (CAS 7440-36-0)
  - Copper (CAS 7440-50-8)
  - Lead (CAS 7439-92-1)
  - Manganese (CAS 7439-96-5)
  - Zinc (CAS 7440-66-6)
- New Jersey Worker and Community Right-to-Know Act
  - Aluminum (CAS 7429-90-5)
  - Antimony (CAS 7440-36-0)
  - Copper (CAS 7440-50-8)
  - Lead (CAS 7439-92-1)
  - Manganese (CAS 7439-96-5)
  - Sulfur (CAS 7704-34-9)
  - Zinc (CAS 7440-66-6)
- Pennsylvania Worker and Community Right-to-Know Law
  - Aluminum (CAS 7429-90-5)
  - Antimony (CAS 7440-36-0)
  - Copper (CAS 7440-50-8)
  - Lead (CAS 7439-92-1)
  - Manganese (CAS 7439-96-5)

- Zinc (CAS 7440-66-6)
- Calcium (CAS 7440-70-2)
- Silicon (CAS 7440-21-3)
- Sulfur (CAS 7704-34-9)

- Rhode Island Right-to-Know
  - Aluminum (CAS 7429-90-5)
  - Antimony (CAS 7440-36-0)
  - Copper (CAS 7440-50-8)
  - Lead (CAS 7439-92-1)
  - Manganese (CAS 7439-96-5)
  - Zinc (CAS 7440-66-6)
- California Proposition 65 Carcinogens & Reproductive Toxicity (CRT):
  ⚠WARNING: This product can expose you to chemicals including nickel (metallic), which are known to the State of California to cause cancer, and lead, 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. Though the product is NOT hazardous in its as shipped condition and only becomes hazardous when exposed to post-processing dusts/particulates from cutting, grinding, etc.
- Listed Substance
  - This product may contain an extremely small amount of lead in the metallic coating. An extremely small amount of hexavalent chromium passivation treatment may be applied to the surface of the galvanized steel product. Lead and hexavalent chromium are materials known to the State of California to cause cancer or reproductive toxicity. In addition, the product may also possibly contain trace quantities (generally much less than 0.1%) of other metallic elements known to the State of California to cause cancer or reproductive toxicity. These include arsenic (inorganic), cadmium and nickel.

International Inventories	Country(s) or region:	Inventory name:	On Inventory (yes/ no)*:
	United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes
	*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s). A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).		
Other Regulations:	WHMIS Classification (Canadian): This product, Galvanized (Hot Dipped) Sheet-Carbon Steel is not listed as a whole. However, individual components are listed: Manganese—Classified B4, D2A. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. Contact manufacturer for more information.		

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Section 16 – Other Information

Original Issue Date	06/15/2016
Version Number (Revised)	2.0 (09/25/2018) – Switched butyl adhesive formulation. 3.0 (04/04/2019) – Updated California Proposition 65 Warning. 4.0 (06/30/2020) – Switched butyl adhesive for 3M 550 FC polyurethane adhesive sealant.
References	NFPA Ratings  NFPA Hazard Classification Health: 2 Flammability: 1 Instability: 0 Special Hazards: None National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities. ACGIH EPA: AQUIRE database NLM: Hazardous Substances Data Base US. IARC Monographs on Occupational Exposures to Chemical Agents IARC Monographs. Overall Evaluation of Carcinogenicity National Toxicology Program (NTP) Report on Carcinogens ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices USS-POSCO Galvanized (Hot Dipped) Sheet—Carbon Steel SDS Version 8/28/18

Disclaimer: The data in this Safety Data Sheet applies only to the specific product designated herein and does not relate to use in combination with any other material or process. The data given here is based on current knowledge and experience. The purpose of this MSDS is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customer and the protection of the environment. The information and data herein are believed to be accurate and have been compiled from sources believed to be reliable. It is offered for your consideration, investigation and verification. Buyer assumes all risk of use, storage and handling of the product in compliance with applicable federal, state and local laws and regulations. United Construction Products, dba Bison Innovative Products and its subsidiaries make no warranty of any kind, expressed or implied, concerning the accuracy or completeness of the information and data herein. The implied warranties of merchantability and fitness for a particular purpose are specifically excluded. United Construction Products, dba Bison Innovative Products and its subsidiaries will not be liable for claims relating to any party's use of or reliance on information and data contained herein regardless of whether it is claimed that the information and data are inaccurate, incomplete or otherwise misleading.