SAFETY DATA SHEET

1. Identification

GHS product identifier	**STEEL-IT 4907A Epoxy Finish, Part "A"**
Product code	4907A
Version #	02
Issue date	10-29-2012
Revision date	10-31-2012
Supersedes date	10-29-2012
CAS #	Mixture
Recommended use	Paint / Industrial coating.
Recommended Restrictions	Not available.
Manufacturer information	Stainless Steel Coatings, Inc 835 Sterling Road South Lancaster, MA, 01561 Contact person: CHEMTREC sds@steel-it.com (978) 365-9828

2. Hazards identification

GHS classification

Physical hazards	Flammable liquids	Category 3
Health hazards	Acute toxicity, oral	Category 5
	Acute toxicity, dermal	Category 5
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 1
	Sensitization, skin	Category 1
	Carcinogenicity	Category 2
	Specific target organ toxicity, repeated exposure	Category 2 (Lung)
Environmental hazards	Hazardous to the aquatic environment, long-term hazard	Category 2

GHS label elements

Signal word

Danger

Hazard statement

Flammable liquid and vapor. May be harmful if swallowed. May be harmful in contact with skin. Causes skin irritation. Causes serious eye damage. May cause an allergic skin reaction. Suspected of causing cancer. May cause damage to organs (Lung) through prolonged or repeated exposure. Toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wash thoroughly after handling. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Do not breathe mist or vapor. Avoid release to the environment.

Response

In case of fire: Use alcohol-resistant foam, carbon dioxide, dry powder or water fog for extinction. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a POISON CENTER or doctor/physician if you feel unwell. 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.

Storage

Store in a well-ventilated place. Keep cool. Store locked up.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Specific hazards Vapors irritate the respiratory system, and may cause coughing and difficulties in breathing. May cause lung damage. Prolonged contact causes serious eye and tissue damage. Organic solvents may be absorbed into the body by inhalation and ingestion and cause permanent damage to the nervous system, including the brain. Liquid irritates mucous membranes and may cause abdominal pain if swallowed. Contains ethylbenzene, which is classified as an IARC 2B chemical (Possibly Carcinogenic to Humans).

3. Composition/information on ingredients

Components	CAS #	Percent
Polyamide Resin	68410-23-1	40 - 50
2-Butoxyethanol	111-76-2	10 - 15
4-Chloro-.alpha.,.alpha.,.alpha.-trifluorotoluene	98-56-6	10 - 15
Xylene	1330-20-7	10 - 15
Chromium	7440-47-3	1 - 5
Ethylbenzene	100-41-4	1 - 5
Nickel	7440-02-0	1 - 5
1,2,4-Trimethylbenzene	95-63-6	1 - 3
Distillates (petroleum), hydrotreated light	64742-47-8	1-3
Solvent naphtha (petroleum), light aromatic	64742-95-6	1 - 3
Triethylenetetramine	112-24-3	< 1

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First aid measures

First aid procedures

Inhalation Move injured person into fresh air and keep person calm under observation. Get medical attention if any discomfort occurs.

Skin Remove contaminated clothing immediately and wash skin with soap and water. If skin rash or an allergic skin reaction develops, get medical attention.

Eye Immediately flush with plenty of water for at least 15 minutes. Remove any contact lenses and open eyelids wide apart. Get medical attention immediately. Continue to rinse.

Ingestion If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Get medical attention if any discomfort occurs.

Most important symptoms and effects, both acute and delayed Vapors may cause drowsiness and dizziness. Extreme irritation of eyes and mucous membranes, including burning and tearing. Skin irritation. Sensitization.

Notes to physician Treat symptomatically.

General advice Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital.

5. Fire-fighting measures

Suitable extinguishing media Extinguish with foam, carbon dioxide or dry powder.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical During fire, gases hazardous to health may be formed. Solvent vapors may form explosive mixtures with air.

Protective equipment and precautions for firefighters Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Protection of fire-fighters Use standard firefighting procedures and consider the hazards of other involved materials. Cool containers exposed to heat with water spray and remove container, if no risk is involved.

6. Accidental release measures

Personal precautions Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Avoid inhalation of vapors and spray mist and contact with skin and eyes.

Environmental precautions Do not allow to enter drains, sewers or watercourses.

Methods for containment Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop leak if you can do so without risk. Dike the spilled material, where this is possible. Prevent entry into waterways, sewers, basements or confined areas.

Methods for cleaning up Remove sources of ignition. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.

7. Handling and storage

Handling Local exhaust is recommended. Avoid inhalation of vapors and spray mist and contact with skin and eyes. The product is flammable, and heating may generate vapors which may form explosive vapor/air mixtures. Do not smoke, use open fire or other sources of ignition. Material can accumulate static charges which may cause an electrical spark (ignition source). Use proper bonding and/or grounding procedures. Use non-sparking hand tools and explosion-proof electrical equipment. Observe good industrial hygiene practices.

Storage Store in closed original container in a dry place. Keep away from heat, sparks and open flame. Protect against direct sunlight. Store away from incompatible materials.

8. Exposure controls / personal protection

Control parameters

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
1,2,4-Trimethylbenzene (CAS 95-63-6)	TWA	25 ppm	
2-Butoxyethanol (CAS 111-76-2)	TWA	20 ppm	
Chromium (CAS 7440-47-3)	TWA	0.5 mg/m3	
Ethylbenzene (CAS 100-41-4)	TWA	20 ppm	
Nickel (CAS 7440-02-0)	TWA	1.5 mg/m3	Inhalable fraction.
Xylene (CAS 1330-20-7)	STEL	150 ppm	
	TWA	100 ppm	

Recommended monitoring procedures Follow standard monitoring procedures.

Engineering controls Use explosion-proof equipment. Provide adequate ventilation and minimize the risk of inhalation of vapors and mists. Explosion-proof general and local exhaust ventilation. Provide easy access to water supply or an emergency shower.

Personal protective equipment

Eye/face protection Chemical goggles are recommended.

Skin protection Wear suitable protective clothing. Chemical/oil resistant clothing is recommended.

Respiratory protection In case of inadequate ventilation or risk of inhalation of vapors, use suitable respiratory equipment.

Hand protection Wear protective gloves. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

9. Physical and chemical properties

Appearance

Physical state Liquid.

Color Gray.

Form Liquid.

Odor Characteristic of solvents.

Odor threshold Not available.

pH Not available.

Melting point/Freezing point Not available.

Boiling point 250 - 470 °F (121.1 - 243.3 °C)

Flash point 82 °F (27.8 °C)

Evaporation rate Slower then ether.

Flammability (solid, gas) Not applicable.

Flammability limits in air, lower, % by volume 0.6 %

Flammability limits in air, upper, % by volume Not available.

Vapor pressure Not available.

Vapor density > 1 (air=1)

Relative density 1.11 (77°F)

Solubility (H2O)	< 2 g/100 g
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
VOC (Weight %)	577.7 g/l
Molecular weight	Not available.
Other data	
Explosive limit	Not available.
Explosive properties	Not available.
Oxidizing properties	Not available.

10. Stability and reactivity

Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Will not occur.
Conditions to avoid	Heat, sparks, flames.
Incompatible materials	Strong oxidizing agents. Strong reducing agents. Strong acids.
Hazardous decomposition products	Carbon oxides. Aldehydes. Nitrogen compounds.

11. Toxicological information

Toxicological data

Components	Species	Test Results
1,2,4-Trimethylbenzene (CAS 95-63-6)		
Acute		
Dermal		
LD50	Rabbit	> 3160 mg/kg
Inhalation		
LC50	Rat	18000 mg/m3, 4 hours
2-Butoxyethanol (CAS 111-76-2)		
Acute		
Dermal		
LD50	Rabbit	400 mg/kg
Inhalation		
LC50	Rat	450 mg/l, 4 Hours
Oral		
LD50	Rat	560 mg/kg
Distillates (petroleum), hydrotreated light (CAS 64742-47-8)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
LC50	Rat	> 5.28 mg/l, 4 hours
Oral		
LD50	Rat	> 5000 mg/kg
Ethylbenzene (CAS 100-41-4)		
Acute		
Dermal		
LD50	Rabbit	18156 mg/kg
Inhalation		
LC50	Rat	55000 mg/m³
Oral		
LD50	Rat	3500 mg/kg
Xylene (CAS 1330-20-7)		
Acute		
Oral		
LD50	Rat	4300 mg/kg

Routes of exposure Inhalation. Ingestion. Skin contact. Eye contact.

Toxicological information Occupational exposure to the substance or mixture may cause adverse effects.

Acute toxicity May be harmful if absorbed through skin or swallowed.

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/irritation Causes serious eye damage.

Respiratory sensitizer No data available.

Skin sensitization May cause an allergic skin reaction.

Mutagenicity No data available.

Carcinogenicity Suspected of causing cancer.

ACGIH Carcinogens

2-Butoxyethanol (CAS 111-76-2)	A3 Confirmed animal carcinogen with unknown relevance to humans.
Chromium (CAS 7440-47-3)	A4 Not classifiable as a human carcinogen.
Ethylbenzene (CAS 100-41-4)	A3 Confirmed animal carcinogen with unknown relevance to humans.
Nickel (CAS 7440-02-0)	A5 Not suspected as a human carcinogen.
Xylene (CAS 1330-20-7)	A4 Not classifiable as a human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

2-Butoxyethanol (CAS 111-76-2)	3 Not classifiable as to carcinogenicity to humans.
Chromium (CAS 7440-47-3)	3 Not classifiable as to carcinogenicity to humans.
Ethylbenzene (CAS 100-41-4)	2B Possibly carcinogenic to humans.
Nickel (CAS 7440-02-0)	2B Possibly carcinogenic to humans.
Xylene (CAS 1330-20-7)	3 Not classifiable as to carcinogenicity to humans.

Reproductive toxicity No data available.

Specific target organ toxicity - single exposure No data available.

Specific target organ toxicity - repeated exposure May cause damage to organs (Lung) through prolonged or repeated exposure.

Aspiration hazard No data available.

Symptoms Vapors may cause drowsiness and dizziness. Extreme irritation of eyes and mucous membranes, including burning and tearing. Skin irritation. Sensitization.

Other information Organic solvents may be absorbed into the body by inhalation and cause permanent damage to the nervous system, including the brain.

12. Ecological information

Ecotoxicological data

Components		Species	Test Results
1,2,4-Trimethylbenzene (CAS 95-63-6)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	7.19 - 8.28 mg/l, 96 hours
Ethylbenzene (CAS 100-41-4)			
Aquatic			
Crustacea	EC50	Daphnia	2.1 mg/l, 48 hours
Fish	LC50	Bluegill (Lepomis macrochirus)	32 - 88 mg/l, 96 hours
		Fathead minnow (Pimephales promelas)	12.1 mg/l, 96 hours
Xylene (CAS 1330-20-7)			
Aquatic			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	8 mg/l, 96 Hours

Ecotoxicity Toxic to aquatic life with long lasting effects.

Persistence / degradability No data available.

Bioaccumulation

Bioaccumulative potential

Octanol/water partition coefficient log Kow

2-Butoxyethanol	0.83
Ethylbenzene	3.15
Xylene	3.2

Mobility The product contains organic solvents which will evaporate easily from all surfaces.

Other adverse effects No data available.

13. Disposal considerations

Disposal methods Rags and the like, moistened with flammable liquids, must be discarded into designated fireproof bucket.

Waste from residues / unused products Dispose of in accordance with local regulations.

Contaminated packaging Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

14. Transport information

ADR

UN number	UN1263
Proper shipping name	Paint
Hazard class	3
Packing group	III
Environmental hazards	
Marine pollutant	Yes
Tunnel restriction code	(D/E)
Labels required	3
Special precautions	Read safety instructions, SDS and emergency procedures before handling.

IATA

UN number	UN1263
Proper shipping name	Paint
Hazard class	3
Packing group	III
Labels required	3
Special precautions	Read safety instructions, MSDS and emergency procedures before handling.

IMDG

UN number	UN1263
Proper shipping name	Paint, MARINE POLLUTANT
Hazard class	3
Packing group	III
Environmental hazards	
Marine pollutant	Yes
Labels required	3
EmS	F-E, S-E
Special precautions	Read safety instructions, MSDS and emergency procedures before handling.

RID

UN number	UN1263
Proper shipping name	Paint
Hazard class	3
Packing group	III
Environmental hazards	
Marine pollutant	Yes
Labels required	3
Special precautions	Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

Regulatory information This material safety data sheet was prepared in accordance with "Globally Harmonized System of Classification and Labelling of Chemicals (GHS)".

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No

Country(s) or region	Inventory name	On inventory (yes/no)*
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
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)

16. Other information

Disclaimer The information in the sheet was written based on the best knowledge and experience currently available.

List of abbreviations Not available.