Safety Data Sheet

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GENESEE POLYMERS CORPORATION

Version: 3

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1 – PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Identifiers

PRODUCT NAME: **GP-596**
PRODUCT NUMBER: C-0523-BULK
DESCRIPTION: EPOXY FUNCTIONAL SILICONE SOLUTION
CAS NUMBER: MIXTURE

1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

USE OF SUBSTANCE: Industrial / Paint additive

1.3 Company Identifiers

MANUFACTURER:
Genesee Polymers Corporation
G-4099 S. Dort Hwy.
Burton, MI 48529
Tel (810) 715-5018 Fax (810) 742-8581
Email: cpiskoti@gpcsilicones.com

1.4 Emergency Contact Information

24 HR. EMERGENCY PHONES: CHEM*TEL (800) 255-3924 (Domestic) / (813) 248-0585 (International)
Contract Number: MIS0002539

2 – HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008
Classifications listed also are applicable to the OSHA GHS Hazard Communication Standard (29CFR1910.1200).
The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H412.
Acute Tox. 4 H332 Harmful if inhaled.
Flam. Liq. 3 H226 Flammable liquid and vapour.
Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.
Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.
Classification according to Directive 67/548/EEC or Directive 1999/45/EC
R36/38 Irritating to eyes and skin.
R20 Harmful by inhalation.
R10-52/53 Flammable. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Information concerning particular hazards for human and environment:
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
Classification system:
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.
2.2 GHS Label elements, including precautionary statements
Labelling according to Regulation (EC) No 1272/2008
The product is additionally classified and labelled according to the Globally Harmonized System within the United States. (GHS)
The product is classified and labelled according to the CLP regulation.

PICTOGRAMS:

SIGNAL WORD: Warning.

HAZARD DETERMINING COMPONENTS OF LABELLING:
xylenes
reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight < 700)
HAZARD STATEMENTS
The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H412
H332 Harmful if inhaled.
H226: Flammable liquid and vapour
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H412 Harmful to aquatic life with long lasting effects.
PRECAUTIONARY STATEMENTS
P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking.
P280: Wear protective gloves/protective clothing/eye protection.
P261 Avoid breathing mist/vapours/spray.
P264: Wash thoroughly after handling.
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P370+P378: In case of fire: Use foam, powder or carbon dioxide for extinction.
P271 Use only outdoors or in a well-ventilated area.
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P501: Dispose of contents/container in accordance with local/regional/national/international regulations.
P362 Take off contaminated clothing and wash before reuse.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312 Call a POISON CENTER/doctor if you feel unwell.
P403+P235: Store in a well ventilated place. Keep cool.
HAZARD DESCRIPTION:
WHMIS-SYMBOLS:
B2-Flammable liquid.
D2B-Toxic material causing other toxic effects.

NFPA-ratings (scale 0 – 4)

Health	2
Flammability	3
Reactivity	0

HMIS-ratings (scale 0 – 4)

Health	2
Flammability	3
Reactivity	0
Personal Protection	H

HMIS LONG TERM HEALTH SUBSTANCES
None of the ingredients are listed.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS
Results of PBT and vPvB assessment:
PBT: Not applicable
vPvB: Not applicable

3 – HAZARDS IDENTIFICATION

3.1 Substances
Description: Mixture of substances listed below with nonhazardous additions.
CAS-No.: MIXTURE

Hazardous components:

COMPONENT	CLASSIFICATION	CONCENTRATION
xylene CAS:1330-20-7 EINECS: 215-535-7 Index number: 601-022-00-9	Flam. Liq. 3, H226 Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315	50-100%
reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight < 700) CAS: 25068-38-6 NLP: 500-033=5 Index number: 603-074-00-8	Aquatic Chronic 2, H411 Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	10-25%

Additional Information:
For the listed ingredients, the identity and exact percentages are being withheld as a trade secret.
For the wording of the listed risk phrases refer to section 16.

4 – FIRST-AID MEASURES

4.1 Description of first aid measures
GENERAL INFORMATION: Immediately remove any clothing soiled by the product. Take affected persons out into fresh air.
BREATHING (INHALATION): Supply fresh air; consult doctor in case of complaints. Provide oxygen treatment if affected person has difficulty breathing.
SKIN (DERMAL): Immediately wash with soap and water and rinse thoroughly.
If skin irritation continues, consult a doctor.
EYES: Protect unharmed eye.
Remove contact lenses if worn.
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
SWALLOWING (INGESTION): Rinse out mouth and then drink plenty of water.
Do not induce vomiting; call for medical help immediately.

4.2 Most important symptoms and effects, both acute and delayed
May cause gastro-intestinal irritation if ingested.
Nausea in case of ingestion.
Headache.
Difficulty breathing

Coughing.
Allergic Reactions.
Irritant to eyes.
Irritant to skin and mucous membranes.

HAZARDS: Danger of pulmonary oedema.
Danger of pneumonia.
Danger of impaired breathing.
Vapours have narcotic effect.
May be harmful if swallowed.
May be harmful in contact with skin.

4.3 Indication of any immediate medical attention and special treatment needed
Medical supervision for at least 48 hours.
If necessary oxygen respiration treatment.
Treat skin and mucous membrane with antihistamine and corticoid preparations.
Contains reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <700) May produce an allergic reaction.

5 – FIRE-FIGHTING MEASURES

5.1 Extinguishing media
Suitable extinguishing agents:
Foam.
Alcohol resistant foam.
Fire-extinguishing powder.
Carbon dioxide.
Gaseous extinguishing agents.
Water haze or fog.
For safety reasons unsuitable extinguishing agents: Water with full jet.
5.2 Special hazards arising from the substance or mixture:
Formation of toxic gases is possible during heating or in case of fire.
5.3 Advice for firefighters
Protective equipment:
Wear self-contained respiratory protective device.
Wear fully protective suit.
Additional information
Eliminate all ignition sources if safe to do so.
Cool endangered receptacles with water fog or haze.

6 – ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Ensure adequate ventilation.
Wear protective equipment. Keep unprotected persons away.
Keep away from ignition sources.
Protect from heat.
Use respiratory protective device against the effects of fumes/dust/aerosol.
6.2 Environmental precautions:
Prevent from spreading (e.g. by damming-in or oil barriers.)
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/surface or ground water.
6.3 Methods and material for containment and clean up
Absorb with non-combustible liquid-binding material (sand, diatomite, acid binders, universal binders.)
Remove from the water surface (e.g. skim or suck off).
Dispose contaminated material as waste according to item 13.
Allow to evaporate
Send for recovery or disposal in suitable receptacles.

6.4 Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment
See Section 13 for disposal information.

7 – HANDLING and STORAGE

7.1 Precautions for safe handling
Use only in well ventilated areas.
Avoid splashes or spray in enclosed areas.
Prevent formation of aerosols.
Information about fire – and explosion protection:
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Flammable gas-air mixtures may form in empty receptacles.
Fumes can combine with air to form an explosive mixture.
7.2 Conditions for safe storage, including any incompatibilities
Storage:
Requirements to be met by storerooms and receptacles:
Store in a cool, dry place.
Provide ventilation for receptacles.
Avoid storage near extreme heat, ignition sources or open flame.
Information about storage in one common storage facility:
Store away from foodstuffs.
Store away from oxidizing agents.
Do not store together with alkalis (caustic solutions).
Further information about storage conditions:
Store in cool, dry conditions in well sealed receptacles.
Keep container tightly sealed.
7.3 Specific end use(s)
No further relevant information available.

8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Additional information about design of technical facilities: No further data; see item 7

8.1 Control parameters
Ingredients with limit values that require monitoring at the workplace:

Ingredient	CAS number	Data type	Value
xylene	1330-20-7	IOELV (EU)	Short-term value: 442 mg/m3, 100 ppm Long-term value: 221 mg/m3, 50 ppm Skin
xylene	1330-20-7	PEL (USA)	Long-term value: 434 mg/m3, 100 ppm
xylene	1330-20-7	REL (USA)	Short-term value: 655 mg/m3, 150 ppm Long-term value: 434 mg/m3, 100 ppm
xylene	1330-20-7	TLV (USA)	Short-term value: 651 mg/m3, 150 ppm Long-term value: 434 mg/m3, 100 ppm BEI
xylene	1330-20-7	EL (Canada)	Short-term value: 150 ppm Long-term value: 100 ppm
xylene	1330-20-7	EV (Canada)	Short-term value: 650 mg/m3, 150 ppm Long-term value: 434 mg/m3, 100 ppm

DNELs No further relevant information available.
PNECs No further relevant information available.

Ingredients with biological limit value

Ingredient	CAS number	Data type	Value
xylene	1330-20-7	BEI (USA)	1.5 g/g creatine Medium: urine Time: end of shift Parameter: Methylhippuric acids

Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls
Personal protective equipment:
General protective and hygienic measures:
The usual precautionary measures for handling chemicals should be followed.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Do not inhale gases / fumes / aerosols.
Respiratory protection:
Wear appropriate NIOSH respirator when ventilation is inadequate and occupational exposure limits are exceeded.
Protection of hands:

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.
Material of gloves
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
Penetration time of glove material
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
Eye protection:

Safety glasses

Body protection:
Protective work clothing
Limitation and supervision of exposure into the environment
Avoid release to the environment.
Risk management measures
See section 7 for additional information.
No further relevant information available.

9 – PHYSICAL / CHEMICAL PROPERITES

9.1 Information on basic physical and chemical properties
General Information
Appearance:
Form: Liquid.

Colour:	Clear to straw color.
Odour:	Not determined.
Odour threshold:	Not determined.
pH value:	7
Change in condition:	
Melting point/Melting range:	Not determined.
Boiling point/Boiling range:	142 °C (288 °F)
Flash point:	<21.1 ° C (<70° F) (PMCC)
Flammability (solid, gaseous):	Not applicable.
Auto/Self-ignition temperature:	425 ° C (797 ° F)
Decomposition temperature:	Not determined.
Self-igniting:	Product is not self-igniting.
Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Vapor pressure:	1.32 hPa (1 mm Hg)
Density at 25 °C:	0.9291 g/cm^3 (7.433lbs/gal)
Relative density:	Not determined.
Vapour density at 20 °C	Not determined.
Evaporation rate:	Not determined.
Solubility in / Miscibility with Water:	Insoluble.
Partition coefficient (n-octanol/water)	Not determined.
Viscosity:	
Dynamic:	6.6 cSt
Kinematic:	Not determined.
9.2 Other information	No further relevant information available.

10 – STABILITY and REACTIVITY

10.1 Reactivity
10.2 Chemical stability
Thermal decomposition / conditions to be avoided
Keep away from heat/sparks/open flames/hot surfaces - No smoking.
10.3 Possiblility of hazardous reactions
Reacts with alkali (lyes).
Reacts with oxidizing agents.
Used empty containers may contain product gases which form explosive mixtures with air.
Toxic fumes may be released if heated above the decomposition point.
Flammable liquid and vapour.
Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomised.
Reacts with peroxides and other radical forming substances.
10.4 Conditions to avoid
Store away from oxidizing agents.
Keep ignition sources away - Do not smoke.
10.5 Incompatible materials:
Oxidizing agents.
10.6 Hazardous decomposition products:
Carbon monoxide and carbon dioxide.
Ammonia
Silicon Oxides (SiOx)
Nitrogen oxides (NOx)

11 – TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Acute toxicity (LD/LC50 values):

Ingredient	CAS Number	Data Type	Value
xylenes	N/A	Oral LD50	4300 mg/kg (rat)
xylene	N/A	Dermal LD50	2000 mg/kg (rabbit)
reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight < 700)	25068-38-6	Oral LD50	> 2000 mg/kg (rat, female)
reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight < 700)	25068-38-6	Dermal LD50	>2000 mg/kg (rat)

Primary irritant effect:
On the skin: Irritant to skin and mucous membranes.
On the eye: Irritating effect.
Subacute to chronic toxicity
No further relevant information available.
Sensitisation: Sensitisation possible through skin contact.
Additional toxicological information:
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Harmful
Irritant
May be harmful if swallowed.
Suspected of damaging fertility or the unborn child.
Danger through skin absorption.
Toxic and /or corrosive effects may be delayed up to 24 hours.
Acute effects (acute toxicity, irritation and corrosivity):
Vapours have narcotic effect.
Repeated dose toxicity:
Repeated exposures may result in skin and/or respiratory sensitivity.
CMR effects (carcinogenity, mutagenicity and toxicity for reproduction):
None

12 – ECOLOGICAL INFORMATION

12.1 Toxicity
Aquatic toxicity: Toxic for aquatic organisms 25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight < 700)
EC50 2, 7mg/kg (daphnia) (48hr) 25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight < 700)
LC50 1,2 mg/l (Oncorhynchus mykiss) (96hr)
2.4 mg/l (zebra fish) (96hr) 1330-20-7 xylene
LC50 13,4 mg/l (pimpephales promelas) 96 Hours
12.2 Persistence and degradability No further relevant information available.
12.3 Bioaccumulative potential No further relevant information available.
12.4 Mobility in soil No further relevant information available.
Additional ecological information:

Ecotoxical effects:
Remark: Harmful to fish
Harmful to water fleas
General notes:
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
This statement was deduced from the properties of the single components.
Danger to drinking water if even small quantities leak into the ground.
Due to available data on eliminability/decomposition and bioaccumulation potential prolonged term damage of the environment can not be excluded.
12.5 Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.
12.6 Other adverse effects No further relevant information available.

13 –DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Recommendation
Must not be disposed together with household garbage. Do not allow product to reach sewage system. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous. Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.
Uncleaned packaging:
Recommendation: Disposal must be made according to official regulations.

14 – TRANSPORTATION INFORMATION

14.1 Transport hazard information
DOT

UN Number:	UN1993
Proper shipping name:	Flammable liquids, n.o.s (Xylenes)
Hazard class:	3 Flammable liquids.
Label:	3
Packing group:	III
Special instructions:	Limited Quantity for packages less than 30 kg (66 lb) and inner packagings less than 5L (1.3 gal).

ADR

UN Number:	UN1993
Proper shipping name:	1993 FLAMMABLE LIQUID, N.O.S. (Xylene)
Hazard class:	3 (F1) Flammable liquids.
Label:	3
Packing group:	III
Limited quantities:	5L
Excepted quantities:	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 g
Transport category:	3
Tunnel restriction code:	D/E

IMDG

UN Number:	UN1993
Proper shipping name:	FLAMMABLE LIQUID, N.O.S. (xylenes)
Hazard class:	3 Flammable liquids.
Label:	3
Packing group:	III
Limited quantities:	5L
Excepted quantities:	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml

IATA

UN Number:	UN1993
Proper shipping name:	Flammable liquid n.o.s. (Xylene)
Hazard class:	3 Flammable liquids.
Label:	3
Packing group:	III

14.2 Environmental hazards:

Marine pollutant:	No
14.3 Special precautions for user:	Warning: Flammable liquids.
Danger code:	30
EMS Number:	F-E, S-E
Transport in bulk according to AnnexII of MARPOL73/78 and the IBC Code:	Not applicable
UN "Model Regulation":	UN 1993, FLAMMABLE LIQUID, N.O.S. (Xylene),3, III

15 - REGULATIONS

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
United States (USA)
SARA
Section 355 (extremely hazardous substances):
None of the ingredients are listed.
Section 313 (Specific toxic chemical listings):
1330-20-7 xylene
TSCA (Toxic Substances Control Act):
All ingredients are listed.
Proposition 65 (California)
Chemicals known to cause cancer:
None of the ingredients are listed.
Chemicals known to cause reproductive toxicity for females:
None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for males:
None of the ingredients are listed.
Chemicals known to cause developmental toxicity:
None of the ingredients are listed.
Carcinogenic Categories
EPA (Environmental Protection Agency)
xylenes
IARC (International Agency for Research on Cancer):
1330-20-7 xylene
TLV (Threshold Limit Value established by ACGIH):
1330-20-7 xylene
NIOSH-Ca (National Institute for Occupational Safety and Health):
None of the ingredients are listed.
Canada
Canadian Domestic Substances list:
All ingredients are listed.
Canadian Ingredient Disclosure list (limit 0.1%):
None of the ingredients are listed.
Canadian Ingredient Disclosure list (limit 1%):
None of the ingredients are listed
Other regulations, limitations and prohibitive regulations
This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.
Substances of very high concern (SVHC) according to REACH, Article 57:
None of the ingredients are listed.
15.2 Chemical safety assessment:
A Chemical Safety Assessment has not been carried out.

16 – OTHER INFORMATION

We believe the recommendations and technical information contained herein to be accurate. However, they are given without warranty or guarantee, expressed or implied, and we assume no responsibility for losses or damages, direct or indirect, as a result of their use.

Relevant phrases
H226 Flammable liquid and vapour.
H225 Highly flammable liquid and vapour.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation
H332 Harmful if inhaled.
H336 May cause drowsiness or dizziness.
H411 Toxic to aquatic life with long lasting effects.
R10 Flammable
R11 Highly flammable
R20/21 Harmful by inhalation and in contact with skin.
R36 Irritating to eyes.
R36/38 Irritating to eyes and skin.
R38 Irritating to skin.
R43 may cause sensitisation by skin contact.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R67 Vapours may cause drowsiness and dizziness
Abbreviations and acronyms:
ADR: Accord europeen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstracts Service (division of the American Chemical society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (Canada)
WHMIS: Workplace Hazardous Materials Information System (Canada)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50 Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Flam. Liq. 2 Flammable liquids, Hazard Category 2
Flam. Liq. 3: Flammable liquids, Hazard Category 3
Aquatic Chronic 3: Hazardous to the aquatic environment- Chronic Hazard Category 3
EINECS: European Inventory of Existing Commerical Chemical Substances
ELINCS: European List of Notified Chemical Substances
Aquatic Chronic 2: Hazardous to the aquatic environment- Chronic Hazard Category 2
STOT SE 3: Specific target organ toxicity- Single exposure, Hazard Category 3
Skin Sens. 1: Sensitisation-Skin, Hazard Category 1
Eye Irrit. 2 Serious eye damage/eye irritation, Hazard Category 2
Acute Tox.4: Acute toxicity, Hazard Category 4

Sources
SDS Prepared by:
Genesee Polymers Corporation

With assistance from:
Chemtel Inc.
1305 North Florida Avenue
Tampa, Florida USA 33602-2902
Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573
Website: www.chemtelinc.com