





Printing date 06/21/2018 Reviewed on 06/21/2018

1 Identification

· Product identifier

· Trade name: SC 155 NA Resin

· Article number: I026100

· Application of the substance / the mixture Epoxy resin

· Details of the supplier of the safety data sheet SikaAxson US - EHS Department

· Manufacturer/Supplier:

Company Name: Axson Technologies US, Inc.-SikaAxson

Headquarters:

31200 Stephenson Hwy Madison Heights, MI 48071 USA

Manufacturing Site: 1611 Hults Drive

Eaton Rapids, MI 48827

USA

ehs-us@axson.com

· Information department: Product safety department

· Emergency telephone number:

During normal opening times: +1 (248) 588-2270 CHEMTREC 24-hour Emergency: +1 (800) 424-9300

2 Hazard(s) identification

· Classification of the substance or mixture



GHS09 Environment

Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction. STOT SE 3 H335 May cause respiratory irritation.

· Label elements

• GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).

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· Hazard pictograms





· Signal word Warning

· Hazard-determining components of labeling:

Reaction Product of Bisphenol A and Epichlorohydrin

Epoxy phenol novolac resin

Reaction product of Phenol-Formaldehyde Novolac with Epichlorohydrin

1,6-Bis(2,3-epoxypropoxy)hexane

Dipentaerythritol Pentaacrylate esters

2,3-epoxypropyl neodecanoate

· Hazard statements

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

May cause respiratory irritation.

Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.

· Precautionary statements

Avoid breathing dust/fume/gas/mist/vapors/spray

Avoid breathing dust/fume/gas/mist/vapors/spray

Wear protective gloves / eye protection / face protection.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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/doctor if you feel unwell.

Specific treatment (see on this label).

Wash contaminated clothing before reuse.

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

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

- · Classification system:
- · NFPA ratings (scale 0 4)



Health = 2Fire = 1Reactivity = 0

· HMIS-ratings (scale 0 - 4)



Health = 2Fire = 1

· Other hazards

- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.

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· vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- · **Description:** Mixture of the substances listed below with nonhazardous additions.

· Dangerous components:			
CAS: 25068-38-6 NLP: 500-033-5	Reaction Product of Bisphenol A and Epichlorohydrin	50-100%	
CAS: 28064-14-4	Epoxy phenol novolac resin Reaction product of Phenol-Formaldehyde Novolac with Epichlorohydrin	≥25-≤50%	
CAS: 16096-31-4	1,6-Bis(2,3-epoxypropoxy)hexane	≥5-<10%	
CAS: 67762-90-7	Silicones and siloxanes, dimethyl-, reaction products with silica	1-5%	
CAS: 60506-81-2	Dipentaerythritol Pentaacrylate esters	≥2.5-<5%	
CAS: 26761-45-5 EINECS: 247-979-2	2,3-epoxypropyl neodecanoate	≥0.1-<0.25%	

4 First-aid measures

- · Description of first aid measures
- · After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

- · After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- · After swallowing: If symptoms persist consult doctor.
- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents:

CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- · Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: Wear self-contained respiratory protective device.
- · Additional information

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.







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6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures Not required.
- · Environmental precautions:

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

· Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

· 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.

· Protective Action Criteria for Chemicals

25068-38-6	Reaction Product of Bisphenol A and Epichlorohydrin		
28064-14-4 Epoxy phenol novolac resin Reaction product of Phenol-Formaldehyde Novolac with Epichlorohydrin		30 mg/m³	
67762-90-7	Silicones and siloxanes, dimethyl-, reaction products with silica	120 mg/m³	
13463-67-7	titanium dioxide	30 mg/m³	
78-78-4	isopentane	3000* ppm	
1309-42-8	magnesium hydroxide	26 mg/m³	
21645-51-2	aluminium hydroxide	$8.7 mg/m^3$	
57-55-6	Propylene glycol	30 mg/m³	
7631-86-9	silicon dioxide, chemically prepared	18 mg/m³	
1333-86-4 Carbon black		9 mg/m³	
<i>PAC-2:</i>			
25068-38-6	Reaction Product of Bisphenol A and Epichlorohydrin	990 mg/m³	
28064-14-4	Epoxy phenol novolac resin Reaction product of Phenol-Formaldehyde Novolac with Epichlorohydrin	330 mg/m^3	
67762-90-7	Silicones and siloxanes, dimethyl-, reaction products with silica	$1,300 \text{ mg/m}^3$	
13463-67-7	titanium dioxide	$330 mg/m^3$	
78-78-4	isopentane	33000*** ppm	
1309-42-8	magnesium hydroxide	280 mg/m³	
21645-51-2	aluminium hydroxide	73 mg/m³	
57-55-6	Propylene glycol	1,300 mg/m³	
7631-86-9	silicon dioxide, chemically prepared	740 mg/m^3	
1333-86-4	Carbon black	99 mg/m³	
<i>PAC-3:</i>			
25068-38-6	Reaction Product of Bisphenol A and Epichlorohydrin	$5,900 \text{ mg/m}^3$	
28064-14-4	Epoxy phenol novolac resin Reaction product of Phenol-Formaldehyde Novolac with Epichlorohydrin	$2,000 \text{ mg/m}^3$	
	Silicones and siloxanes, dimethyl-, reaction products with silica		







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13463-67-7	titanium dioxide	$2,000 \text{ mg/m}^3$
78-78-4	isopentane	200000*** ppm
1309-42-8	magnesium hydroxide	$1,700 \text{ mg/m}^3$
21645-51-2	aluminium hydroxide	440 mg/m³
57-55-6	Propylene glycol	$7,900 \text{ mg/m}^3$
7631-86-9	silicon dioxide, chemically prepared	4,500 mg/m³
1333-86-4	Carbon black	590 mg/m³

7 Handling and storage

- · Handling:
- · Precautions for safe handling No special precautions are necessary if used correctly.
- · Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: Keep receptacle tightly sealed.
- · Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

· Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

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Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

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:



Tightly sealed goggles

9 Physical and chemical properties

· Density at 20 °C (68 °F):

Relative densityVapor density

· Evaporation rate

Appearance:		
Form:	Pasty	
Color:	Light grey	
Odor:	Light	
Odor threshold:	Not determined.	
pH-value:	Not determined.	
Change in condition		
Melting point/Melting range:	Undetermined.	
Boiling point/Boiling range:	201 °C (393.8 °F)	
Flash point:	>94 °C (>201.2 °F)	
Flammability (solid, gaseous):	Not applicable.	
Decomposition temperature:	Not determined.	
Auto igniting:	Product is not selfigniting.	
Danger of explosion:	Product does not present an explosion hazard.	
Explosion limits:		
Lower:	Not determined.	
Upper:	Not determined.	

 $0.52 \text{ g/cm}^3 (4.34 \text{ lbs/gal})$

Not determined.

Not determined.
Not determined.

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· Solubility in / Miscibility with Water:	Not miscible or difficult to mix.	
· Partition coefficient (n-octanol/w	ater): Not determined.	
· Viscosity:		
Dynamic at 20 °C (68 °F):	800,000 mPas	
Kinematic:	Not determined.	
· Solvent content:		
Organic solvents:	0.6 %	
VOC content:	0.59 %	
	3.1 g/l / 0.03 lb/gl	
Solids content:	9.6 %	
· Other information	No further relevant information available.	

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: Carbon monoxide and carbon dioxide

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · Primary irritant effect:
- · on the skin: Irritant to skin and mucous membranes.
- · on the eye: Irritating effect.
- · Sensitization: Sensitization possible through skin contact.
- · Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations: Irritant

· Carcinogenic categories

· Curcinogen	in caregories	
· IARC (Inte	rnational Agency for Research on Cancer)	
13463-67-7	titanium dioxide	2B
7631-86-9	silicon dioxide, chemically prepared	3
1333-86-4	Carbon black	2 <i>B</i>
· NTP (Natio	onal Toxicology Program)	
None of the	ingredients is listed.	
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· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- $\cdot \textbf{\it Bioaccumulative potential} \ No \ further \ relevant \ information \ available.$
- · Mobility in soil No further relevant information available.
- · Ecotoxical effects:
- · Remark: Very toxic for fish
- · Additional ecological information:
- · General notes:

Water hazard class 2 (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Very toxic for aquatic organisms

- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- · Recommendation: Disposal must be made according to official regulations.

14 Transport information

· UN-Number	
$\cdot DOT$	not regulated
· IMDG. IATA	UN3082

· UN proper shipping name

 \cdot **DOT** not regulated

• IMDG, IATA ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy phenol novolac resin)

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• 1	Transport	hazard	class	(es))
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- $\cdot DOT$
- · Class not regulated
- · IMDG



- · Class 9 Miscellaneous dangerous substances and articles
- · Label
- · IATA



· Class 9 Miscellaneous dangerous substances and articles

· Label 9

· Packing group

 \cdot **DOT** not regulated

· IMDG, IATA III

· Environmental hazards:

· Special marking (IATA): Symbol (fish and tree)

· Special precautions for user Warning: Miscellaneous dangerous substances and articles

• EMS Number: F-A,S-F • Stowage Category A

· Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code Not applicable.

· UN "Model Regulation": UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (EPOXY PHENOL NOVOLAC RESIN), 9, III

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Sara
- · Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act) (Substances not listed):

All ingredients are listed.

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· Chemicals regulated by TSCA Section 12(b)

None of the ingredients is listed.

· Chemical regulated by TSCA 5(a)(2)rule:

None of the ingredients is listed.

- · Proposition 65
- · Chemicals known to cause cancer:

13463-67-7 titanium dioxide

1333-86-4 Carbon black

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

- · Carcinogenic categories
- · EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

 13463-67-7
 titanium dioxide
 A4

 1333-86-4
 Carbon black
 A4

· NIOSH-Ca (National Institute for Occupational Safety and Health)

13463-67-7 titanium dioxide

1333-86-4 Carbon black

· Listed in CWC Regulations

None of the ingredients is listed.

- · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms





GHS07

GHS09

- · Signal word Warning
- · Hazard-determining components of labeling:

Reaction Product of Bisphenol A and Epichlorohydrin

Epoxy phenol novolac resin

Reaction product of Phenol-Formaldehyde Novolac with Epichlorohydrin

1,6-Bis(2,3-epoxypropoxy)hexane

Dipentaerythritol Pentaacrylate esters

2,3-epoxypropyl neodecanoate

· Hazard statements

Causes skin irritation.

Causes serious eye irritation.

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May cause an allergic skin reaction.

May cause respiratory irritation.

Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.

· Precautionary statements

Avoid breathing dust/fume/gas/mist/vapors/spray

Wear protective gloves / eye protection / face protection.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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/doctor if you feel unwell.

Specific treatment (see on this label).

Wash contaminated clothing before reuse.

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

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

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- · Date of preparation / last revision 06/21/2018 / 3
- · Abbreviations and acronyms:

ADR: Accord européen 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

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

 ${\it HMIS: Hazardous\ Materials\ Identification\ System\ (USA)}$

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

Skin Sens. 1: Skin sensitisation – Category 1

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard - Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard - Category 1