

WEST SYSTEM® 209 Extra Slow Hardener

Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015
Issue date: January 3, 2022
Revision date: May 25, 2022
Version: 209-2022a

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : WEST SYSTEM® 209 Extra Slow Hardener
Chemical family : Polyamine mixture
Product code : 209-SA, 209-SB, 209-SC, 209-SE, C209-SA, C209-SB, C209-SC, C209-SE

1.2. Recommended use and restrictions on use

Recommended use : Curing agent for epoxy resins

1.3. Supplier

Manufacturer

Gougeon Brothers, Inc
100 Patterson Ave.
Bay City, MI 48706 - U.S.A.
T 888-377-6738 or 989-684-7286
www.prosetepoxy.com

1.4. Emergency telephone number

Emergency number : CHEMTREC 1 (800) 424-9300
CHEMTREC International +1 (703) 527-3887 24 hr

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS classification

Acute Tox. 4 (Oral)
Skin Corr. 1C
Eye Dam. 1
Skin Sens. 1
STOT SE 3
STOT RE 2
Aquatic Acute 2
Aquatic Chronic 2

2.2. GHS Label elements, including precautionary statements

GHS labelling

Hazard pictograms (GHS) :



Signal word (GHS) :

Danger

Hazard statements (GHS) :

Harmful if swallowed.

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

Causes serious eye damage.

Suspected of causing genetic defects.

May cause damage to organs through prolonged or repeated exposure.

WEST SYSTEM® 209 Extra Slow Hardener

Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

Precautionary statements (GHS)	<p>Toxic to aquatic life Toxic to aquatic life with long lasting effects.</p> <p>: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust, fume, gas, mist, vapours, spray. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves, protective clothing, eye protection, face protection. If exposed or concerned: Get medical advice/attention. If swallowed: rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention. 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. Immediately call a poison center or doctor. Get medical advice/attention if you feel unwell. Collect spillage. Store locked up. Dispose of contents/container to a hazardous or special waste collection point.</p>
--------------------------------	--

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	%
Trimethylolpropane polyoxypropylenetriamine	Trimethylolpropane poly(oxypropylene)triamine Propylidynetrimethanol, propoxylated, reaction products with ammonia / Jeffamine T-403 / Polypropyleneglycol 2-aminopropyl ether, ether with 1,1,1-trimethylolpropane / Trimethylolpropane poly(oxypropylene)triamine / Polyetheramine T403 / MGE 914 / Tris(2-aminoethyl) ether of propoxylated trimethylolpropane	CAS-No.: 39423-51-3	30-60
Isophoronediamine	Isophoronediamine Isophorone diamine / 3-(Aminomethyl)-3,5,5-trimethylcyclohexylamine / 3-Aminomethyl-3,5,5-trimethylcyclohexylamine	CAS-No.: 2855-13-2	15-40
Isophoronediamine, reaction products with phenol and formaldehyde	Isophoronediamine, reaction products with phenol and formaldehyde	CAS-No.: 25265-17-2	10-30

WEST SYSTEM® 209 Extra Slow Hardener

Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

	Formaldehyde, oligomeric reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine and phenol / Polymer, formaldehyde with 5-amino-1,3,3-trimethylcyclohexanemethanamine and phenol / Isophoronediamine, reaction products with phenol/formaldehyde		
Hydroxybenzene	Phenol Monohydroxybenzene / Carboic acid	CAS-No.: 108-95-2	3-7

* The exact chemical identity and/or exact percentage (concentration) of each ingredient may be held as confidential business information (CBI). Any ingredient not disclosed in this section may have been determined not to be hazardous to health or the environment, or it may be present at a level below its disclosure threshold. Refer to Section 15 for additional information regarding this CBI claim

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	: If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
First-aid measures after skin contact	: If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER/doctor.
First-aid measures after eye contact	: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
First-aid measures after ingestion	: IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Immediately call a POISON CENTER/doctor.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation	: Causes burns to the respiratory system.
Symptoms/effects after skin contact	: Causes severe skin burns. Symptoms may include redness, pain, blisters. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.
Symptoms/effects after ingestion	: Harmful if swallowed. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.
Chronic symptoms	: May cause damage to organs through prolonged or repeated exposure. Suspected of causing genetic defects.

4.3. Immediate medical attention and special treatment, if necessary

Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Foam. Carbon dioxide. Dry chemical.
Unsuitable extinguishing media	: Do not use water jet.

5.2. Specific hazards arising from the chemical

Fire hazard	: Products of combustion may include, and are not limited to: oxides of carbon. Oxides of nitrogen. Amines. Ammonia. Nitric acid. Nitrosamines. Aldehydes. Cyanides. Toxic fumes. When mixed with sawdust, wood chips, or other cellulosic material, spontaneous combustion can occur under certain conditions. Heat is generated as the air oxidizes the amine. If the heat is not dissipated quickly enough, it can ignite the sawdust.
-------------	---

WEST SYSTEM® 209 Extra Slow Hardener

Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Stop leak if safe to do so. Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE). Do not absorb in sawdust, paper, cloth or other combustible absorbents.

Methods for cleaning up : Scoop up material and place in a disposal container. Provide ventilation.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes, on skin, or on clothing. Do not breathe dust, fume, gas, mist, spray, vapours. Do not swallow. Handle and open container with care. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. When mixed with epoxy resin this product causes an exothermic reaction, which in large masses, can produce enough heat to damage or ignite surrounding materials and emit fumes and vapors that vary widely in composition and toxicity.

Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep out of the reach of children. Keep only in the original container in a cool, well-ventilated place. Keep container tightly closed. Keep away from heat and direct sunlight. Storage temperature : 40°F (4°C) - 90°F (32°C). Store locked up.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Ingredient Name	CAS#	Exposure Limit Information
-----------------	------	----------------------------

WEST SYSTEM® 209 Extra Slow Hardener

Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

Trimethylolpropane polyoxypropylenetriamine	39423-51-3	No data available
Isophoronediamine	2855-13-2	No data available
Isophoronediamine, reaction products with phenol and formaldehyde	25265-17-2	No data available (reference IPD)
Hydroxybenzene	108-95-2	ACGIH TWA: 5 ppm; 19 mg/kg NIOSH REL: 5 ppm; 19 mg/kg OSHA PEL: 5 ppm; 19 mg/kg NIOSH CEILING: 15.6 ppm; 60 mg/kg

8.2. Appropriate engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station. Provide readily accessible eye wash stations and safety showers.
- Environmental exposure controls : Maintain levels below Community environmental protection thresholds. Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:
Wear suitable gloves resistant to chemical penetration. Neoprene. nitrile-butyl rubber gloves. Butyl rubber gloves. natural rubber gloves
Eye protection:
Wear eye/face protection
Skin and body protection:
Wear suitable protective clothing. Wear suitable protective clothing
Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Other information:

Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: No data available.
Colour	: Amber
Odour	: Ammonia
Odour threshold	: No data available
pH	: 11.61
Melting point	: No data available
Freezing point	: No data available
Boiling point	: > 400 °F (204°C) estimated based on similar product.
Flash point	: > 200 °F (93°C) estimated based similar product.
Relative evaporation rate (butylacetate=1)	: No data available
Flammability	: Not flammable.
Vapour pressure	: < 1 mm Hg @ 68 °F (20 °C)
Relative vapour density at 20 °C	: No data available
Relative density	: 0.96
Solubility	: No data available
Partition coefficient n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available

WEST SYSTEM® 209 Extra Slow Hardener

Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

Viscosity, kinematic	: 67.3 mm ² /s @104 °F (20°C)
Viscosity, dynamic	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available

9.2. Other information

VOC content	: 19.3 g/l 0.16 lbs/gal (ASTM 2369-07)
Bulk density	: 7.99 lb/gal (0.96 kg/L)

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under normal storage conditions.

10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use. A mass of more than one pound of product plus an epoxy resin will cause irreversible polymerization with significant heat buildup and pressure.

10.4. Conditions to avoid

Heat. Incompatible materials.

10.5. Incompatible materials

Acids. Oxidizing materials. Halogenated compounds. Bleach. Peroxides. Nitrites.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon. Oxides of nitrogen. Amines. Ammonia. Nitric acid. Cyanides. Nitrosamines. Toxic fumes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Harmful if swallowed.
Acute toxicity (dermal)	: Not classified.
Acute toxicity (inhalation)	: Not classified.

Ingredient Name	CAS#	LD ₅₀ Oral	LD ₅₀ Dermal	LC ₅₀ Inhalation
Trimethylolpropane polyoxypropylenetriamine	39423-51-3	550 mg/kg	>1000 mg/kg	No data available
Isophoronediamine	2855-13-2	1030 mg/kg	>2000 mg/kg	>5.01 mg/l dust/mist 4h
Isophoronediamine, reaction products with phenol and formaldehyde	25265-17-2	No data available (reference IPD)	No data available (reference IPD)	No data available (reference IPD)
Hydroxybenzene	108-95-2	317 mg/kg	630 mg/kg (solid)	900 mg/m ³ ; 8h (solid)

Skin corrosion/irritation	: Causes severe skin burns. pH: 11.61
Serious eye damage/irritation	: Causes serious eye damage. pH: 11.61
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Suspected of causing genetic defects.
Carcinogenicity	: Not classified.

WEST SYSTEM® 209 Extra Slow Hardener

Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

Hydroxybenzene (108-95-2)	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified.
STOT-single exposure : May cause respiratory irritation.
STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.

Isophoronediamine (2855-13-2)	
LOAEL (oral, rat, 90 days)	160 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)

Hydroxybenzene (108-95-2)	
LOAEL (dermal, rat/rabbit, 90 days)	260 mg/kg bodyweight Animal: rabbit
NOAEL (dermal, rat/rabbit, 90 days)	130 mg/kg bodyweight Animal: rabbit
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified.

WEST SYSTEM® 209 Extra Slow Hardener	
Viscosity, kinematic	67.3 mm ² /s @104 °F (40°C)

Symptoms/effects after inhalation : Causes burns to the respiratory system.
Symptoms/effects after skin contact : Causes severe skin burns. Symptoms may include redness, pain, blisters. May cause an allergic skin reaction.
Symptoms/effects after eye contact : Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.
Symptoms/effects after ingestion : Harmful if swallowed. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.
Chronic symptoms : May cause damage to organs through prolonged or repeated exposure. Suspected of causing genetic defects.
Other information : Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Toxic to aquatic life with long lasting effects.

Ingredient	CAS#	Ecotoxicity Classification Information
Trimethylolpropane polyoxypropylenetriamine	39423-51-3	Acute Aquatic Cat. 2; Chronic Aquatic Cat. 2
Isophoronediamine	2855-13-2	Acute Aquatic Cat. 3; Chronic Aquatic Cat. 3
Isophoronediamine, reaction products with phenol and formaldehyde	25265-17-2	No data available (reference IPD)
Hydroxybenzene	108-95-2	Acute Aquatic Cat. 3; Chronic Aquatic Cat. 2

12.2. Persistence and degradability

WEST SYSTEM® 209 Extra Slow Hardener	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

WEST SYSTEM® 209 Extra Slow Hardener	
Bioaccumulative potential	Not established.

Isophoronediamine (2855-13-2)	
Partition coefficient n-octanol/water	0.79 (at 23 °C)

Hydroxybenzene (108-95-2)	
BCF - Fish [1]	(no significant bioaccumulation)
Partition coefficient n-octanol/water	1.5

12.4. Mobility in soil

WEST SYSTEM® 209 Extra Slow Hardener	
Ecology - soil	No additional information available.

WEST SYSTEM® 209 Extra Slow Hardener

Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

12.5. Other adverse effects

Other information : Avoid release to the environment. No other effects known.

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

UN-No. (DOT/TDG) : UN2735
UN-No. (IMDG) : 2735
UN-No. (IATA) : 2735

14.2. UN proper shipping name

Proper Shipping Name (DOT/TDG) : Polyamines, liquid, corrosive, n.o.s. (Trimethylolpropane polyoxypropylenetriamine)
Proper Shipping Name (IMDG) : POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Trimethylolpropane polyoxypropylenetriamine)
Proper Shipping Name (IATA) : Polyamines, liquid, corrosive, n.o.s. (Trimethylolpropane polyoxypropylenetriamine)

14.3. Transport hazard class(es)

Department of Transportation (DOT) and Transportation of Dangerous Goods (TDG)

Class (DOT/TDG) : 8
Hazard labels (DOT/TDG) : 8



IMDG

Transport hazard class(es) (IMDG) : 8
Danger labels (IMDG) : 8



IATA

Transport hazard class(es) (IATA) : 8
Danger labels (IATA) : 8



14.4. Packing group

Packing group (DOT/TDG) III

WEST SYSTEM® 209 Extra Slow Hardener

Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

Packing group (IMDG) : III
Packing group (IATA) : III

14.5. Environmental hazards

Other information : No supplementary information available.
Marine Pollutant : Yes

14.6. Special precautions for user

Special transport precautions : Do not handle until all safety precautions have been read and understood.
EmS-No. (Fire) (IMDG) : F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE
EmS-No. (Spillage) (IMDG) : S-B - SPILLAGE SCHEDULE Bravo - CORROSIVE SUBSTANCES

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

All components of this product are listed, or excluded from listing, on the Canadian DSL (Domestic Substances List) inventory.

All components of this product are listed, or excluded from listing, on the Canadian NDSL (Non-Domestic Substances List) inventory.

15.2. International regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

Revision date : May 25, 2022
Other information : None.
Prepared by : Nexreg Compliance Inc.
www.Nexreg.com



Full text of H-statements	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 2	Hazardous to the aquatic environment – Acute Hazard, Category 2
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Muta. 2	Germ cell mutagenicity, Category 2

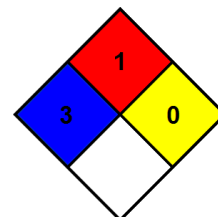
WEST SYSTEM® 209 Extra Slow Hardener

Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

Full text of H-statements	
Skin Corr. 1C	Skin corrosion/irritation, Category 1C
Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2

NFPA health hazard : 3 - Materials that, under emergency conditions, can cause serious or permanent injury.
NFPA fire hazard : 1 - Materials that must be preheated before ignition can occur.
NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating
Health : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given
Flammability : 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)
Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

SDS HazCom 2012 - WHMIS 2015 (Nexreg) 2021 (B&W)

Disclaimer: We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.