SAFETY DATA SHEET

AMERICAN INDUSTRIES, INC.
WWW.AMERICANINDUSTRIES.COM

SECTION 1: IDENTIFICATION

COMPANY NAME:	AMERICAN INDUSTRIES, INC.	**PRODUCT NAME:**	**BARRAGE**
ADDRESS LINE 1:	4300 Kahn Drive, Box 1405	**PRODUCT CODE:**	2384
ADDRESS LINE 2:	Lumberton, NC 28359-1405 USA	**PRODUCT USE:**	Citrus Blended Solvent
TELEPHONE NUMBERS:	800-753-5153 (or) 910-738-7224	**SDS FILE ID:**	2384.06
EMERGENCY PHONE:	**CHEMTREC 1-800-424-9300**	**SDS DATE:**	2022-09-13

REPLACES MSDS VERSION DATED: 2017-11-14 *and all prior revisions*

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification:

Environmental	Hazards to the aquatic environment	Chronic, 1
Health	Respiratory or skin sensitization	1, Skin
	Skin corrosion/irritation	2
	Serious eye damage/Eye irritation	2 A
Physical	Flammable liquid	3

Label elements

Signal word: WARNING

Hazard statements:
H410 Very toxic to aquatic life with long lasting effects.
H317 May cause an allergic skin reaction.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H226 Flammable liquid and vapor

Precautionary statements:
P261: Avoid breathing dust/fume/gas/mist/vapors/spray.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353: IF ON SKIN (or hair): Remove/take off all contaminated clothing. Rinse skin with water/shower.
P305 + P351 + P338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS number	%
Cyclohexene, 1-methyl-4-(1-methylethyenyl)-, (4R)-	5989-27-5	5-10
Butanedioic acid, dimethyl ester	106-65-0	20-22
Alcohols, C9-11-iso-, C10-rich, ethoxylated	78330-20-8	20-22

The specific chemical identity and/or exact percentages are being withheld as a trade secret (CBI). In the event of an emergency, the exact chemical formula and percentages will be given to medical personnel upon request.

All chemicals I this product are reported in the EPA, TSCA Inventory.

SECTION 4: FIRST AID MEASURES

Inhalation	If inhaled, move to fresh air. If symptoms persist, obtain medical attention.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If irritation persists, obtain medical attention.
Eye contact	Immediately, flush eyes with large amounts of water for at least 15 minutes, lifting eyelids occasionally to facilitate irrigation. Contact a physician if redness persists
Ingestion	Do not induce vomiting without medical advice. Drink plenty of water to dilute. Do not give anything by mouth to an unconscious or convulsing person. Contact a physician immediately.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Extinguishing methods	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers.
Specific hazards during fire fighting	Burning produces irritant fumes. Exposure to decomposition products may be a hazard to health.
Special protective equipment	Full protective clothing and approved self-contained breathing apparatus required for firefighting personnel

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautionary Measures: Use appropriate protective equipment. (See Section 8.) Do not get into eyes, skin, or clothing. Wear respiratory protection. Avoid breathing vapors. Ensure adequate ventilation.
Environmental Precautionary Measures: Do not empty into drains. Prevent uncontrolled discharge of product into the environment if safe to do so.
Methods and Materials for Containment and Cleanup: Do not discharge into waste water. Soak up with an inert absorbent material (e.g. sand, silica gel, sawdust). Sweep up and shovel. Place in a non-leaking container for proper disposal according to Federal, State, and Local regulations.

SECTION 7: HANDLING AND STORAGE

Handling	Wear personal protective equipment when handling product. Handle with care. Take care to avoid waste and spillage when weighing, loading and mixing the product.
Storage	Observe label precautions. Keep container tightly closed in a dry, cool and well-ventilated place. Do not allow product to freeze.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Use in well ventilated area.

Personal Protective Equipment: Safety Glasses, Gloves, Apron

Use good chemical hygiene practice. Avoid contact with skin, eyes, and clothing. Avoid inhalation of vapors.

Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-	5989-27-5	5-10%	No data available
Butanedioic acid, dimethyl ester	106-65-0	20-22%	No data available

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Color	Clear orange liquid
Physical State	Liquid
Odor	Citrus
Flash point	135^{o}F (57^{o}C)
Partition Coefficient	No data available
Boiling point	No data available
Melting point/freezing point	No data available
Auto-ignition temperature	No data available
Vapor pressure	No data available
Vapor density (Air-1)	No data available
Specific gravity/Density	1.0
Viscosity	No data available
Water solubility	Soluble in water
pH	5-7
Evaporation rate (Ether=1)	No data available
Decomp Temp	No data available

SECTION 10: STABILITY AND REACTIVITY

Reactivity	Stable
Chemical stability	Stable under normal conditions.

Conditions to avoid	Open flame and excessive heat.
Materials to avoid	Avoid contact with strong oxidizing agents. Strong acids and strong bases.
Hazardous decomposition	Carbon dioxide (CO2), carbon monoxide (CO). Other unknown decomposition products possible.
Hazardous polymerization	Will not occur

SECTION 11: TOXICOLOGICAL INFORMATION

Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-	**5989-27-5**	**5-10%**

Information on toxicological effects	
Acute toxicity	LD50 Oral-rat-4,4000 mg/kg Remarks: Behavioral: Change in motor activity (specific assay). Respiratory disorder Skin and Appendages: Other: Hair. Inhalation: Irritating to respiratory system. LD50 (Dermal) Rabbit>5,000 mg/kg No data available
Skin corrosion/irritation	No data available.
Serious eye damage/eye irritation	No data available.
Respiratory or skin sensitization	May cause sensitization by skin contact.
Germ cell mutagenicity	No data available.
Carcinogenicity-rat-Oral	Tumorigenic: Carcinogenic by RTECS criteria. Kidney, Urethra, Bladder: Kidney tumors. Tumorigenic Effects: Testicular
Carcinogenicity-mouse-Oral	Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Gastrointestinal: Tumors.
This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification	
IARC: 3 - Group 3:	Not classifiable as to its carcinogenicity to humans (D-Limonene)
ACGIH	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP
OSHA	OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity	No data available.
Specific target organ toxicity	Single exposure-No data available Repeated exposure-No data available
Aspiration hazard	No data available
Additional Information	RTECS: GW6360000
Liver	Irregularities-Based on human evidence

Butanedioic acid, dimethyl ester	**106-65-0**	**20-22%**

Information on toxicological effects	
Acute toxicity:	LD50 Oral - rat - female - 6,892 mg/kg; LD50 Inhalation - rat - male and female - > 2,000 mg/l; LD50 Dermal - rabbit - > 5,000 mg/kg; no data available
Skin corrosion/irritation	Skin - rabbit Result: No skin irritation (OECD Test Guideline 404)
Serious eye damage/eye irritation	Eyes - rabbit Result: Mild eye irritation (OECD Test Guideline 405)

Respiratory or skin sensitization	in vivo assay - mouse Result: Did not cause sensitization on laboratory animals. (OECD Test Guideline 429)
Germ cell mutagenicity	mouse lymphocyte Result: negative in vitro assay S. typhimurium
Carcinogenicity:	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH. NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity	No data available.
Specific target organ toxicity	Single exposure-No data available Repeated exposure-No data available
Aspiration hazard	No data available
Additional Information	RTECS: WM7675000 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: ECOLOGICAL INFORMATION

Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-	**5989-27-5**	**5-10%**
Toxicity to fish LC50	Pimephales promelas (fathead minnow)	0.702 mg/l-96.0 h
Toxicity to daphnia and EC50	Daphnia pulex (Water flea)	69.6 mg/l-48 h
Persistence and degradability	No data available	
Bio-accumulative potential	No data available	
Mobility in soil	No data available	
Results of PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not conducted		
Other adverse effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life.	

Butanedioic acid, dimethyl ester	**106-65-0**	**20-22%**
Toxicity to fish semi-static LC50 (OECD Test Guideline 203)	Danio rerio (zebra fish)	50-100 mg/l-96.0 h
Toxicity to daphnia and static test EC50 (other aquatic (OECD Test Guideline 202) invertebrates	Daphnia magna (Water flea)	100 mg/l-48 h
Toxicity to algae static test EC50 – (OECD Test Guideline 201)	Pseudokirchneriella subcapitata	>100 mg/l-72.0 h
Toxicity to bacteria Growth inhibition EC50 (OECD Test Guideline 209	Sludge Treatment	1000 mg/l-3 h
Persistence and degradability (OECD Test Guideline 301B)	Biodegradability aerobic - Exposure time 28 d Result: 74.1 % - Readily biodegradable.	
Bioaccumulative potential	No data available	
Mobility in soil	No data available	
Results of PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not conducted		
Other adverse effects	No data available	

SECTION 13: DISPOSAL CONSIDERATIONS

Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)- (5989-27-5) [5-10%]

Waste treatment methods:

Product: Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging: Dispose of as unused product.

Butanedioic acid, dimethyl ester (106-65-0) [20-22%]

Waste treatment methods

Product: This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging: Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

DOT INFORMATION FOR QUANTITIES GREATER THAN 5 LITERS PER CONTAINER:	UN 2319, Terpene hydrocarbons, n.o.s., 3, PGIII (D-Limonene)
Marine Pollutant	No

SECTION 15: REGULATORY INFORMATION

COMPONENT	(CAS/PERC)	CODES
Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)	5989275 (5-10%)	TSCA
Butanedioic acid, dimethyl ester	106-65-0 (20-22%)	TSCA
Alcohols, C9-11-iso-, C10-rich, ethoxylated	78330-20-8 (20-22%)	TSCA

REGULATORY CODE DESCRIPTIONS-

TSCA = Toxic Substances Control Act

SECTION 16: OTHER INFORMATION

Important Note: *To be the best of our knowledge, the information contained herein is accurate. However there is no assumption of liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. Since the conditions of handling, storage and disposal of this product are beyond the control of the manufacturer/supplier, the manufacturer/supplier will not be responsible for loss, injury, or expense arising out of the products improper use. Various government agencies may have specific regulations regarding the transportation, handling, storage, use, or disposal of this product which may not be covered by this SDS. The user is responsible for full compliance.*

End of SDS