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SECTION 1. IDENTIFICATION

Recommended use of the chemical and restrictions on use Recommended use : Polymer additive							
Restrictions on use		For professional and industrial installation and use only.					
Manufacturer or supplier's details							

Manufacturer or supplier's details

Company:

Supplier SI Group USA (USAA), LLC 4 Mountainview Terrace Suite 200 Danbury, CT United States of America (USA) 06810

Emergency telephone

Emergency telephone:	+1 703-741-5970(CHEMTREC/US) +44 (0) 1235 239 670(NCEC/EU) 0 512 8090 3042(NRCC/CHINA)
	For additional emergency telephone numbers see section 16 of the Safety Data Sheet.

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accor Skin irritation	dan :	ce with 29 CFR 1910.1200 Category 2
Eye irritation	:	Category 2A
Respiratory sensitization	:	Category 1
Skin sensitization	:	Category 1
Specific target organ systemic toxicity - single exposure	:	Category 3 (Respiratory system)
Short-term (acute) aquatic hazard	:	Category 3

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Long haza	-term (chronic) aquatic rd	: Category 3	
Com	bustible dust		
GHS	label elements		
Haza	ard pictograms		!
Signa	al Word	: Danger Warning	
Haza	ard Statements	H319 Causes s H334 May caus difficulties if inha H335 May caus H412 Harmful to	e an allergic skin reaction. erious eye irritation. e allergy or asthma symptoms or breathing
Preca	autionary Statements	P264 Wash skir P271 Use only P272 Contamin the workplace. P273 Avoid rele P280 Wear prot	athing dust/ fume/ gas/ mist/ vapors/ spray. In thoroughly after handling. Dutdoors or in a well-ventilated area. ated work clothing should not be allowed out of ease to the environment. Elective gloves/ eye protection/ face protection.
		P304 + P340 + and keep comfo CENTER/docto P305 + P351 + for several minu to do. Continue P333 + P313 If attention. P337 + P313 If attention. P342 + P311 If POISON CENT	skin irritation or rash occurs: Get medical advice/ eye irritation persists: Get medical advice/ experiencing respiratory symptoms: Call a

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Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture	:	Mixture
---------------------	---	---------

Chemical nature : Polymer stabilizer

Hazardous ingredients

Chemical name	CAS-No.	Concentration (% w/w)
phthalic anhydride	85-44-9	>= 90 - <= 100
Distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0	>= 1 - < 5
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol	95-38-5	< 0.1

The exact percentage concentrations of components are being withheld as a trade secret in accordance with paragraph (i) of §1910.120

SECTION 4. FIRST AID MEASURES

General advice	:	Move out of dangerous area. Consult a physician. Show this material safety data sheet to the doctor in attendance.
If inhaled	:	Move to fresh air. Consult a physician after significant exposure.
In case of skin contact	:	Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. If symptoms persist, call a physician.
In case of eye contact	:	Immediately flush eye(s) with plenty of water. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
If swallowed	:	Clean mouth with water and drink afterwards plenty of water.



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					r alcoholic beverages. ng by mouth to an unconscious person. tention.
		nportant symptoms ects, both acute and d	:	Product dust may system. Allergic reactions Eye irritation Skin irritation Respiratory disore	be irritating to eyes, skin and respiratory
	Notes t	to physician	:		edure should be established in consultation sponsible for industrial medicine.
SEC	TION 5	. FIRE-FIGHTING ME	ASL	IRES	
	Suitabl	e extinguishing media	:		measures that are appropriate to local d the surrounding environment.
	Specific hazards during fire fighting		:		dust; fine dust dispersed in air in sufficient nd in the presence of an ignition source is a losion hazard.
				Do not allow run- courses.	off from fire fighting to enter drains or water
	Furthe	r information	:	must not be disch Fire residues and	ted fire extinguishing water separately. This arged into drains. contaminated fire extinguishing water must accordance with local regulations.
		l protective equipment fighters	:	In the event of fire	e, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Non-sparking tools should be used. Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep in properly labeled containers.
Environmental precautions	:	Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform



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				respective author	ties.
		ds and materials for ment and cleaning up	:		ge disposal without creating dust. closed containers for disposal.
SEC	TION 7	. HANDLING AND ST	OR	AGE	
		on protection against d explosion	:	housekeeping sho accumulate on su	neration and accumulation. Routine buld be instituted to ensure that dusts do not rfaces. Dry powders can build static s when subjected to the friction of transfer tions.
				Avoid dust format at places where d	ion. Provide appropriate exhaust ventilation ust is formed.
	Advice	on safe handling	:	Avoid exposure - For personal prote Persons with a his asthma, allergies, should not be em being used. Smoking, eating a application area. Provide sufficient	f respirable particles. obtain special instructions before use. ection see section 8. story of skin sensitization problems or chronic or recurrent respiratory disease bloyed in any process in which this mixture is and drinking should be prohibited in the air exchange and/or exhaust in work rooms. water in accordance with local and national
	Conditi	ions for safe storage	:	Prevent unauthor Keep container tig place.	zed access. htly closed in a dry and well-ventilated

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
phthalic anhydride	85-44-9	TWA	1 ppm	ACGIH
		TWA	2 ppm 12 mg/m3	OSHA Z-1
		TWA	1 ppm 6 mg/m3	OSHA P0
		TWA	1 ppm 6 mg/m3	NIOSH REL
Distillates (petroleum), solvent- dewaxed heavy paraffinic	64742-65-0	TWA (Mist)	5 mg/m3	OSHA Z-1



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TWA (Inhalable fraction)	5 mg/m3	ACGIH
TWA (Mist)	5 mg/m3	NIOSH REL
ST (Mist)	10 mg/m3	NIOSH REL

Hazardous components without workplace control parameters

Components	CAS-No.
2-(2-heptadec-8-enyl-2-	95-38-5
imidazolin-1-yl)ethanol	

Exposure controls

Engineering measures	:	It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).
		Use mechanical ventilation for general area control. Ensure that extracted air cannot be returned to the workplace through the ventilation system. Maintain air concentrations below occupational exposure standards. Dust must be extracted directly at the point of origin. Ensure that eyewash stations and safety showers are close to the workstation location.
Personal protective equipme	ent	
Respiratory protection	:	In the case of dust or aerosol formation use respirator with an approved filter.
Hand protection		
Remarks	:	Polyvinyl alcohol or nitrile- butyl-rubber gloves Before removing gloves clean them with soap and water.
Eye protection	:	Eye wash bottle with pure water Tightly fitting safety goggles
Skin and body protection	:	Dust impervious protective suit Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Hygiene measures	:	Avoid contact with skin, eyes and clothing. When using do not eat or drink. When using do not smoke. Wash hands before breaks and immediately after handling

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			the product.
SECT	ION 9. PHYSICAL AND CHE	EMIC	CAL PROPERTIES
А	ppearance	:	powder
C	olor	:	white
C	dor	:	characteristic, irritating
C	dor Threshold	:	No data available
р	н	:	No data available
N	lelting point/range	:	260 - 269 °F
В	oiling point/boiling range	:	543.2 °F sublimes
F	lash point	:	132 °C Method: Tag closed cup
E	vaporation rate	:	No data available
F	lammability (solid, gas)	:	No data available
U	pper explosion limit	:	10.4 %(V)
L	ower explosion limit	:	1.7 %(V)
V	apor pressure	:	0.067 hPa (20 °C)
R	elative vapor density	:	No data available
R	elative density	:	1.52
D	ensity	:	No data available
S	olubility(ies) Water solubility	:	soluble, hydrolyzes
	Solubility in other solvents	:	soluble Solvent: Organic solvents
	artition coefficient: n- ctanol/water	:	No data available
А	utoignition temperature	:	650 °C
D	ecomposition temperature	:	No data available

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Visco	sity scosity, dynamic	: No data avail	able	
Vis	scosity, kinematic	: No data avail	able	
Explo	sive properties	: No data avail	able	
Oxidiz	zing properties	: No data avail	able	
Surfa	ce tension	: No data avail	able	

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Stable under recommended storage conditions.
Chemical stability	:	No decomposition if stored and applied as directed.
Possibility of hazardous reactions	:	Stable under recommended storage conditions. No decomposition if used as directed.
Conditions to avoid	:	No data available
Incompatible materials	:	Strong acids and strong bases, Oxidizing agents, Reducing agents
Hazardous decomposition products	:	Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). Thermal decomposition can lead to release of irritating gases and vapors.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely route Inhalation Eye contact Skin contact	es of	exposure
Acute toxicity		
Product:		
Acute oral toxicity	:	LD50 Oral (Rat): 4,000 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): > 210 mg/m3 Exposure time: 1 h Test atmosphere: vapor Symptoms: Inhalation may provoke the following symptoms:, Asthma, Shortness of breath, Severe irritation, Nose bleeding
Acute dermal toxicity	:	LD50 Dermal (Rabbit):> 10 g/kg



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Con	nponents:				
	nalic anhydride:				
-	te oral toxicity	: LD50 Oral (Ra	t): 1,530 mg/kg		
2-(2	-heptadec-8-enyl-2-imi	dazolin-1-vl)ethanol			
-	te oral toxicity		0 - 5,000 mg/kg		
Acu	te dermal toxicity	: LD50 (Rabbit):	> 2,000 mg/kg		
Skir	n corrosion/irritation				
	<u>duct:</u> narks: May cause skin irr	ritation and/or dermat	itis.		
<u>Con</u>	nponents:				
Spe Exp Met	-heptadec-8-enyl-2-imi cies: Rabbit osure time: 4 h hod: Draize Test ult: Corrosive	dazolin-1-yl)ethanol	:		
Seri	ous eye damage/eye ir	ritation			
Pro	duct:				
Ren	Remarks: May cause irreversible eye damage.				
<u>Con</u>	nponents:				
2-(2	-heptadec-8-enyl-2-imi	dazolin-1-yl)ethanol	:		
Res	cies: Rabbit ult: Corrosive hod: Draize Test				
Res	piratory or skin sensiti	zation			
Pro	duct:				
	narks: Causes sensitizat	ion.			
Con	nponents:				
phtł	nalic anhydride:				
Ass Met	cies: Guinea pig essment: May cause ser hod: OECD Test Guidelii ult: Causes sensitization	ne 406	tact.		

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2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol:

Result: Did not cause sensitization on laboratory animals.

Carcinogenicity

Components:

2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol:

Carcinogenicity - : Animal testing did not show any carcinogenic effects. Assessment

Further information

Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to microorganisms	:	Remarks: No data available
remeny to millioroorgamento	•	

Components:

phthalic anhydride:

Toxicity to fish	:	LC50 (Cyprinus carpio (Carp)): > 500 mg/l Exposure time: 48 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 140 mg/l Exposure time: 24 h
Toxicity to algae	:	EC50 (Desmodesmus subspicatus (green algae)): ca. 100 mg/l Exposure time: 72 h

2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol:

Toxicity to algae	:	EC50 (Desmodesmus subspicatus (green algae)): 0.030 mg/l
		Exposure time: 72 h
		Test Type: static test
		Method: OECD Test Guideline 201

Persistence and degradability

No data available

Bioaccumulative potential

Components:

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	neptadec-8-enyl-2-imic	lazo		
	ion coefficient: n- ol/water	:	log Pow: > 6	
Mobi	lity in soil			
No da	ata available			
Othe	r adverse effects			
Produ	uct:			
Ozon	e-Depletion Potential	:	Protection of Stra Substances Remarks: This pro manufactured with	FR Protection of Environment; Part 82 tospheric Ozone - CAA Section 602 Class I oduct neither contains, nor was h a Class I or Class II ODS as defined by the t Section 602 (40 CFR 82, Subpt. A, App.A +
Additi inform	onal ecological nation	:	There is no data a	available for this product.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods	
Waste from residues	 Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container. Offer surplus and non-recyclable solutions to a licensed disposal company.
Contaminated packaging	 Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

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

Not applicable for product as supplied.

Domestic regulation

49 CFR Not regulated as a dangerous good



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Special precautions for user

Not applicable

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
phthalic anhydride	85-44-9	5000	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain	an	y components with a section 304 EHS RQ.
SARA 311/312 Hazards	:	Acute Health Hazard

SARA 302	:	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.		reporting
SARA 313	:	The following components are subject to reporting levels established by SARA Title III, Section 313:		ing levels
		phthalic anhydride	85-44-9	96.8917 %

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B). The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61): phthalic anhydride 85-44-9 96.8917 %

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489):

phthalic anhydride 85-44-9 96.8917 %

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

US State Regulations

Massachusetts Right To Know

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know

Not listed

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	New Je	ersey Right To Kno phthalic anhydric				85-44-9
		Distillates (petrol		hydrotreated hea	avy naphthenic	64742-52-5
	Califor	paraffin oils nia Prop 65	:		nia to cause cancer,	8012-95-1 hemicals known to the birth, or any other
	-		oduct	•	the following inver	
	REACH	1	:	Not in complian	ce with the inventory	/
	TSCA		:	On TSCA Inver	ntory	
	DSL		:	All components	of this product are o	on the Canadian DSL
	AICS		:	On the inventor	y, or in compliance v	vith the inventory
	NZIoC		:	On the inventor	y, or in compliance v	vith the inventory
	ENCS		:	On the inventor	y, or in compliance v	vith the inventory
	ISHL		:	On the inventor	y, or in compliance v	vith the inventory
	KECI		:	On the inventor	y, or in compliance v	vith the inventory
	PICCS		:	On the inventor	y, or in compliance v	vith the inventory
	IECSC		:	On the inventor	y, or in compliance v	vith the inventory
	TCSI		:	Not in complian	ce with the inventory	1

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and

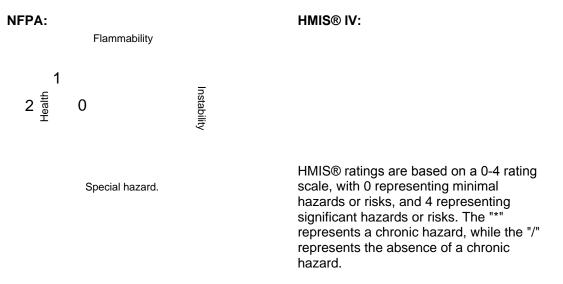


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Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO -International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO -International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration: NO(A)EL - No Observed (Adverse) Effect Level: NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Further information



Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.

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<** Phrase language not available: [Z8] CUST - 10000000012264 **>

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Carechem24 International Worldwide Coverage



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Emergency Phone Numbers:

Europe:	All European Countries	+44 (0) 1235 239 670
Asia Pacific:	East / South East Asia	Regional Number : +65 3158 1074
	Australia	+61 2801 44558
	New Zealand	+64 9929 1483
	China Taiwan	+86 10 5100 3039
	Japan	+81 345 789 341
	Indonesia	00780 3011 0293
	:Malaysia	+60 3 6207 4347
	Thailand	001800 1 2066 6751
	Korea	+65 3158 1285
	Vietnam	+65 3158 1255
	India	+65 3158 1198
	Pakistan	+65 3158 1329
	Philippines	+65 31581203
	Sri Lanka	+65 3158 1195
	Bangladesh	+65 3158 1200
Middle East / Africa:	Arabic speaking countries	+44 (0) 1235 239 671
	All other countries	+44 (0) 1235 239 670
<u>America</u>	United States / Canada	001866 928 0789
Latin America:	Brazil	+55 113 711 9144
	All other countries	+44 (0) 1235 239 670
	Mexico	+52 555 004 8763