

SAFEWING MP IV LAUNCH -US

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Substance key: 000000344932	Revision Date: 01/13/2022
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SECTION 1. IDENTIFICATION

Identification of the company:	Clariant Corporation 500 East Morehead Street Charlotte, NC, 28202 Telephone No.: +1 704 331 7000 Information of the substance/preparation: BU Industrial & Consumer Specialties Product Stewardship, +1-704-331-7710 e-mail: SDS.NORAM@clariant.com
	Emergency tel. number: +1 800-424-9300(CHEMTREC)
Trade name: Material number:	SAFEWING MP IV LAUNCH -US 233876
Primary product use:	Aircraft de-icing
Chemical family:	polymer-thickened deicer based on propylene glycol, corrosion inhibitors, surfactants and water - green coloured.

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Not a hazardous substance or mixture.

GHS label elements

Not a hazardous substance or mixture.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components

Chemical name	CAS-No.	Concentration (% w/w)		
Propylene Glycol	>= 70 - < 90			
Actual concentration is withhold as a trade secret				

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

lf inhaled	:	Move the victim to fresh air. Give oxygen or artificial respiration if needed. Get immediate medical advice/ attention. Never give anything by mouth to an unconscious person.
In case of skin contact	:	Wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention.



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In case of our contact		
In case of eye contact		for at least 15 minutes. Get medical attention immediately if irritation develops and persists.
If swallowed	:	Get medical attention immediately.
Most important symptoms and effects, both acute and delayed	:	The possible symptoms known are those derived from the labelling (see section 2). No additional symptoms are known.
Notes to physician	:	None known.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during firefighting	:	In case of fires, hazardous combustion gases are formed: Carbon monoxide (CO)
Further information	:	Wear full protective clothing and self-contained breathing apparatus.
Special protective equipment for firefighters	:	Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, : protective equipment and emergency procedures	Refer to protective measures listed in sections 7 and 8. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Contain spill. Ensure adequate ventilation and wear appropriate personal protective equipment. Collect onto inert absorbent. Place in sealable container. Do not allow to contaminate water sources or sewers.
Environmental precautions :	Do not allow contact with soil, surface or ground water. Prevent product from entering drains.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling	:	Wash thoroughly after handling. Keep container closed.	
Further information on storage conditions	:	Store in a cool, dry, well-ventilated area. sealed when not in use.	Keep container



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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components Propylene Glycol	CAS-No. 57-55-6	Value type (Form of exposure) TWA	Control parameters / Permissible concentration 10 mg/m3	Basis US WEEL
Engineering measures :	Local ventilati be used.	on recommende	d - mechanical ventil	ation may
Personal protective equipmen	t			
Respiratory protection :	: General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Wh concentrations are above recommended limits or are unknown, appropriate respiratory protection should be wo Follow OSHA respirator regulations (29 CFR 1910.134) a use NIOSH/MSHA approved respirators. Protection provid by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure ain supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not prov adequate protection.			
Hand protection Remarks :	Butyl Rubber,	PVC Or Neopre	ne.	
Eye protection :	Safety glasses	s with side-shiel	ds	
Skin and body protection :	Wear suitable	protective equip	oment.	

Components with workplace control parameters

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	viscous liquid
Colour	:	green
Odour	:	slightly perceptible
Odour Threshold	:	not determined
рН	:	7 - 7.5 (68 °F / 20 °C) Method: DIN 19261



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		Determined in the undiluted form
Melting point	:	-31 °F / -35 °C Method: ASTM D 2386
Boiling point	:	217 °F / 103 °C Method: ASTM D 1120
Flash point	:	> 212 °F / > 100 °C
		Method: ASTM D 92 (closed cup)
Evaporation rate	:	not determined
Flammability (solid, gas)	:	Not applicable
Self-ignition	:	The substance or mixture is not classified as self heating.
Upper explosion limit / upper flammability limit	:	Not applicable
Lower explosion limit / Lower flammability limit	:	Not applicable
Vapour pressure	:	not determined
Relative vapour density	:	not determined
Density	:	1.043 g/cm3 (68 °F / 20 °C)
		8.708 lb/gal (68 °F / 20 °C)
Bulk density	:	not determined
Solubility(ies) Water solubility	:	soluble
Partition coefficient: n- octanol/water	:	Not applicable
Auto-ignition temperature	:	> 752 °F / > 400 °C Method: DIN 51794
Decomposition temperature	:	> 752 °F / > 400 °C Method: DIN 51794
Viscosity		
Viscosity, dynamic	:	approx. 10,000 - 20,000 mPa.s (68 °F / 20 °C) Method: ASTM D 2196
Viscosity, kinematic	:	not determined



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SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	Stable
Possibility of hazardous reactions	:	No dangerous reaction known under conditions of normal use. Stable
Conditions to avoid	:	None known.
Incompatible materials	:	Strong oxidizing agents
Hazardous decomposition products	:	No decomposition if stored and applied as directed.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure None known.		
Acute toxicity		
Product: Acute oral toxicity :	Remarks: The product has not been tested. The information is derived from the properties of the individual components.	
Components:		
Propylene Glycol:		
Acute oral toxicity :	LD50 (Rat, male and female): 22,000 mg/kg Method: Other GLP: no	
Acute inhalation toxicity :	LC50 (Rabbit, no data available): > 317.042 mg/l Exposure time: 2 h Test atmosphere: dust/mist Method: Other GLP: no	
Acute dermal toxicity :	LD50 (Rabbit, no data available): > 2,000 mg/kg Method: Other GLP: no Assessment: The substance or mixture has no acute dermal toxicity	

Skin corrosion/irritation

Product:

Remarks: The product has not been tested. The information is derived from the properties of the individual components.



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Components:

Propylene Glycol:

Species: Rabbit Exposure time: 4 h Method: OECD Test Guideline 404 Result: No skin irritation GLP: No information available.

Serious eye damage/eye irritation

Product:

Remarks: The product has not been tested. The information is derived from the properties of the individual components.

Components:

Propylene Glycol:

Species: Rabbit Result: No eye irritation Method: OECD Test Guideline 405 GLP: No information available.

Respiratory or skin sensitisation

Product:

Remarks: not tested.

Components:

Propylene Glycol:

Test Type: Local lymph node assay (LLNA) Exposure routes: Dermal Species: Mouse Method: OECD Test Guideline 429 Result: Not a skin sensitizer. GLP: No information available.

Test Type: Maximisation Test Exposure routes: Dermal Species: Guinea pig Method: OECD Test Guideline 406 Result: Not a skin sensitizer. GLP: No information available.

Germ cell mutagenicity

Components:

Propylene Glycol: Genotoxicity in vitro

: Test Type: Ames test Test system: Salmonella typhimurium



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	Concentration: <= 10 mg/plate Metabolic activation: with Method: Ames test Result: negative GLP: No information available.
	Test Type: Chromosome aberration test in vitro Test system: Human lymphocytes Concentration: 7,4 - 3810 µg/ml Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473 Result: negative GLP: yes
Genotoxicity in vivo	 Test Type: Chromosome Aberration Test Species: Rat (male) Strain: Sprague-Dawley Cell type: Bone marrow Application Route: oral (gavage) Exposure time: 6 - 24 - 48 h Dose: 30, 2500, and 5000 mg/kg Method: Other Result: negative GLP: no
	Test Type: In vivo micronucleus test Species: Mouse (male) Cell type: Erythrocytes Application Route: Intraperitoneal injection Exposure time: 18 h Dose: 0, 2500, 5000, 10000, 15000 mg Method: Other Result: negative GLP: No information available.
Germ cell mutagenicity - Assessment	: In vitro tests did not show mutagenic effects, In vivo tests did not show mutagenic effects
Carcinogenicity	
Components:	
Propylene Glycol:	
Carcinogenicity - Assessment	: Not classifiable as a human carcinogen.
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.
OSHA	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.



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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.
Reproductive toxicity	
Components:	
Propylene Glycol:	
Effects on fertility	 Test Type: Two-generation study Species: Mouse, male and female Strain: CD1 Application Route: Drinking water Dose: 1820 - 4800 - 10100 mg/kg General Toxicity - Parent: NOAEL: 10,100 mg/kg body weight General Toxicity F1: NOAEL: 10,100 mg/kg body weight General Toxicity F2: NOAEL: 10,100 mg/kg body weight Method: Other GLP: No information available.
Effects on foetal development	 Test Type: Pre-natal Species: Mouse, female Strain: CD1 Application Route: oral (gavage) Dose: 520 - 5200 - 10400 mg/kg Duration of Single Treatment: 9 d General Toxicity Maternal: NOAEL: 520 mg/kg body weight Teratogenicity: NOAEL: 1,040 mg/kg body weight Method: OECD Test Guideline 414 GLP: yes
Reproductive toxicity - Assessment	: No reproductive toxicity to be expected. No teratogenic effects to be expected.

STOT - single exposure

Components:

Propylene Glycol:

Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure

Components:

Propylene Glycol:

Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.



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Repeated dose toxicity

Components:

Propylene Glycol:

Species: Rat, male and female NOAEL: 1.700 - 2.100 mg/kg bw/day Application Route: oral (feed) Exposure time: 2 a Number of exposures: daily Dose: 200, 400, 900, 1700 mg/kg bw Group: yes Method: Other GLP: no

Species: Cat, male NOAEL: 443 mg/kg bw/day Application Route: oral (feed) Exposure time: 69 - 94 d Number of exposures: daily Dose: 80 - 4239 mg/kg Group: yes Method: Other GLP: no

Species: Rat, male and female LOEL: 0.16 mg/l Application Route: Inhalation Test atmosphere: dust/mist Exposure time: 90 d Number of exposures: 6 hours/day, 5 days/week Dose: 0,16 - 1,01 - 2,18 mg/l Group: yes Method: Other GLP: No information available.

Species: Mouse, female NOAEL: 0.02 Application Route: Dermal Exposure time: Lifespan Number of exposures: 2x / w Dose: 10-50-100% / 0.02 ml acetone Group: yes Method: Other GLP: no Remarks: No pathological findings

Aspiration toxicity

Components:

Propylene Glycol: No aspiration toxicity classification



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Experience with human exposure

Product:

General Information

: The possible symptoms known are those derived from the labelling (see section 2).

Further information

Product:

Remarks: The classification was made by the conventional (calculation) method of the CLP Regulation (EC) No 1272/2008.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Product.		
Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 2,443 mg/l Exposure time: 96 h Method: OPPTS 850.1075
		LC50 (Pimephales promelas (fathead minnow)): 2,443 mg/l Exposure time: 96 h Method: OPPTS 850.1075
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna Straus): 976 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	EC50 (Green algae - fresh water (Pseudokirchneriella subcapitata)): 2,228 mg/l Exposure time: 96 h Method: EPA OPPTS 850.5400 Algal toxicity, tiers I and II (1996)
Toxicity to microorganisms	:	EC50: 5,200 mg/l Exposure time: 30 min Method: ISO 11348-2
Components:		
Propylene Glycol:		
Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 40,613 mg/l End point: mortality Exposure time: 96 h Test Type: static test Analytical monitoring: yes Method: Other GLP: no
Toxicity to daphnia and other aquatic invertebrates	:	LC50 (Mysidopsis bahia (opossum shrimp)): 18,800 mg/l End point: mortality



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	Exposure time: 96 h Test Type: static test Analytical monitoring: yes Method: Other GLP: yes
Toxicity to algae/aquatic : plants	ErC50 (Pseudokirchneriella subcapitata (green algae)): 19,000 mg/l End point: Growth rate Exposure time: 96 h Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 201 GLP: yes
	ErC50 (Skeletonema costatum (marine diatom)): 19,100 mg/l End point: Growth rate Exposure time: 96 h Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 201 GLP: yes
Toxicity to fish (Chronic : toxicity)	Chronic Toxicity Value (Fish): 2,500 mg/l End point: Other Exposure time: 30 d Method: Other GLP: no Remarks: The value is given based on a SAR/AAR approach using OECD Toolbox, DEREK, VEGA QSAR models (CAESAR models), etc.
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	NOEC (Ceriodaphnia spec.): 13,020 mg/l End point: Reproduction rate Exposure time: 7 d Test Type: semi-static test Analytical monitoring: yes Method: Other GLP: No information available.
Toxicity to microorganisms :	NOEC (Pseudomonas putida): > 20,000 mg/l End point: Growth rate Exposure time: 18 h Test Type: Growth inhibition Analytical monitoring: no Method: Other GLP: no
Sediment toxicity :	LC50: 6983 mg/kg dry weight (d.w.) Analytical monitoring: yes Solvent: no Duration: 10 d Test Type: static test



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	Sediment: Natural sediment Basis for effect: mortality Method: Other GLP: yes
Persistence and degradability	,
Product:	
Biodegradability	Biodegradation: 98 % Exposure time: 7 d Method: OECD Test Guideline 301E
Biochemical Oxygen Demand (BOD)	0.34 kg/kg Method: DIN/EN 1899-1
Chemical Oxygen Demand (COD)	0.85 kg/kg Method: DIN ISO 15705-H45
Dissolved organic carbon (DOC)	0.24 kg/kg Method: DIN/EN 1484
Components:	
Propylene Glycol:	
Biodegradability	aerobic Inoculum: activated sludge Concentration: 100 mg/l ThOD Biochemical Oxygen Demand (BOD) Result: Readily biodegradable. Biodegradation: 100 % Exposure time: 28 d Method: OECD Test Guideline 301F GLP: yes
	aerobic Inoculum: activated sludge Concentration: 50.3 mg/l Carbon dioxide (CO2) Result: Readily biodegradable. Biodegradation: 90.6 % Exposure time: 64 d Method: OECD Test Guideline 306 GLP: yes
Bioaccumulative potential	
Components:	
Propylene Glycol:	
Bioaccumulation	Bioconcentration factor (BCF): 0.09 Method: calculated GLP: no Remarks: The value is given based on a SAR/AAR approach



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	using OECD Toolbox, DEREK, VEGA QSAR models (CAESAR models), etc.
Partition coefficient: n- : octanol/water	log Pow: -1.07 (68.9 °F / 20.5 °C) pH: 6.3 Method: Regulation (EC) No. 440/2008, Annex, A.8 GLP: yes
Mobility in soil	
Components:	
Propylene Glycol:	
Distribution among : environmental compartments	Adsorption/Soil Medium: water - soil log Koc: 0.46 Method: other (calculated)
Stability in soil :	Test Type: Laboratory Soil temperature: 77 °F / 25 °C Radio label: no Percentage dissipation: 96 - 98 % Method: Other GLP: no
Other adverse effects	
Product:	
Additional ecological : information	Biologically degradable, when diluted may be degraded in biological purification plants
Components:	
Propylene Glycol:	
Results of PBT and vPvB : assessment	This substance is not considered to be persistent, bioaccumulating and toxic (PBT).
Additional ecological : information	Do not allow to enter ground water, waterways or waste water.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

RCRA - Resource Conservation and Recovery Authorization Act	:	No Not as sold.
Waste Code	:	NONE
Waste from residues	:	Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities.



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Contaminated packaging : Regulations concerning reuse or disposal of used packaging materials must be observed.

SECTION 14. TRANSPORT INFORMATION

DOT	not restricted
IATA	not restricted
IMDG	not restricted

SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards	:	No SARA Hazards

SARA 313

: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

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):

Clean Water Act

Contains no known priority pollutants at concentrations greater than 0.1%.

The components of this product are reported in the following inventories:

TSCA : All substances listed as active on the TSCA inventory

SECTION 16. OTHER INFORMATION

Further information



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NFPA 704:



Special hazard

Full text of other abbreviations

US WEEL	:	USA. Workplace Environmental Exposure Levels (WEEL)
US WEEL / TWA	:	8-hr TWA

AIIC - Australian Inventory of Industrial Chemicals; 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 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



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Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals 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

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This information corresponds to the present state of our knowledge and is intended as a general description of our products and their possible applications. Clariant makes no warranties, express or implied, as to the information's accuracy, adequacy, sufficiency or freedom from defect and assumes no liability in connection with any use of this information. Any user of this product is responsible for determining the suitability of Clariant's products for its particular application. NO EXPRESS OR IMPLIED WARRANTY IS MADE OF THE MERCHANTABILITY, SUITABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE OF ANY PRODUCT OR SERVICE. Nothing included in this information waives any of Clariant's General Terms and Conditions of Sale, which control unless it agrees otherwise in writing. Any existing intellectual/industrial property rights must be observed. Due to possible changes in our products and applicable national and international regulations and laws, the status of our products could change. Material Safety Data Sheets providing safety precautions, that should be observed when handling or storing Clariant products, are available upon request and are provided in compliance with applicable law. You should obtain and review the applicable Material Safety Data Sheet information before handling any of these products. For additional information, please contact Clariant.

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