Substance key: 000000132931	Revision Date: 03/13/2019
Version : 2 - 0 / USA	Date of printing :07/08/2019

SECTION 1. IDENTIFICATION

Identification of the company:	Clariant Plastics & Coating USA LLC 4000 Monroe Road Charlotte, NC, 28205 Telephone No.: +1 704 331 7000 **Information of the substance/preparation:** Product Stewardship, +1-704-331-7710 **Emergency tel. number:** +1 800-424-9300 CHEMTREC
Trade name:	**HOSTAVIN 3225-2 DISP**
Material number:	192019
Primary product use:	Class of additive: Light stabilizer
Chemical family:	Water-based dispersion of a sterically hindered amine light stabilizer and an UV-absorber

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200

Serious eye damage	:	Category 1
Specific target organ toxicity - repeated exposure	:	Category 2

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : H318 Causes serious eye damage.
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements :

Prevention:

P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P280 Wear eye protection/ face protection.

Response:

P305 + P351 + P338 + P310 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.

P314 Get medical advice/ attention if you feel unwell.

Disposal:

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

Other hazards

No additional hazards are known except those derived from the labelling.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
2,2,4,4-Tetramethyl-7-oxa-3,20-diazadispiro[5.1.11.2]-henicosan-21-one	64338-16-5	10 - 20

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

SECTION 4. FIRST AID MEASURES

If 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 off immediately with plenty of water for at least 15 minutes.
Use a mild soap if available.
Call a physician if irritation develops or persists.

In case of eye contact : Flush eyes with water at least 15 minutes. Get medical attention if eye irritation develops or persists.

If swallowed : Do NOT induce vomiting.
Get immediate medical advice/ attention.

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 : Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : water
Foam
Carbon dioxide (CO2)

ABC powder

Unsuitable extinguishing media	:	none
Specific hazards during firefighting	:	Carbon oxides Nitrogen oxides (NOx) Hydrogen chloride Emits highly toxic fumes under fire conditions.
Further information	:	Wear full protective clothing and NIOSH/MSHA-approved positive pressure, self-contained breathing apparatus.
Special protective equipment for firefighters	:	Full protective suit Self-contained breathing apparatus

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Avoid contact with skin and eyes. Wear suitable protective equipment. Wearing appropriate personal protective equipment, contain spill and collect into a suitable container. Prevent from entering into soil, ditches, sewers, waterways and/or groundwater.
Environmental precautions	:	Do not allow to enter drains or waterways
Methods and materials for containment and cleaning up	:	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	No special measures necessary.
Advice on safe handling	:	Avoid contact with skin, eyes and clothing. Wash thoroughly after handling.
Further information on storage conditions	:	Store in original container. Keep container tightly closed. Store in a cool, dry, well-ventilated area.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Engineering measures : Local ventilation recommended - mechanical ventilation may be used.

Personal protective equipment

Respiratory protection : Use NIOSH/MSHA approved respirators following manufacturer's recommendations where dust or fume may be generated.

Hand protection
Remarks : Nitrile Gloves

Eye protection : Safety glasses with side-shields
Tightly fitting safety goggles

Skin and body protection : Wear suitable protective equipment.

Protective measures : Observe the usual precautions for handling chemicals.

Hygiene measures : Observe the usual precautions for handling chemicals.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	dispersion
Colour	:	white, to, light yellow
Odour	:	not specified
Odour Threshold	:	not determined
pH	:	7.5 - 8.5
Melting point	:	not determined
Boiling point	:	212 °F / 100 °C (1,013.25 hPa) Method: DSC
Flash point	:	> 212 °F / > 100 °C
Evaporation rate	:	not tested.
Flammability (solid, gas)	:	Not applicable
Self-ignition	:	Method: Expert judgement

The substance or mixture is not classified as pyrophoric.

Burning number	:	Not applicable
Upper explosion limit / upper flammability limit	:	Not relevant
Lower explosion limit / Lower flammability limit	:	Not relevant
Vapour pressure	:	not tested.
Relative vapour density	:	not tested.
Density	:	1.05 - 1.1 g/cm3
Solubility(ies)		
Water solubility	:	miscible
Solubility in other solvents	:	not tested. Solvent: fat
Partition coefficient: n-octanol/water	:	Not relevant
Auto-ignition temperature	:	Not relevant
Decomposition temperature	:	The substance or mixture is not classified self-reactive.
Viscosity		
Viscosity, dynamic	:	800 mPa.s
Viscosity, kinematic	:	no data available
Explosive properties	:	Not explosive Method: Expert judgement
Oxidizing properties	:	The substance or mixture is not classified as oxidizing. Method: Expert judgement The product does not contain organic peroxide-groups which result from either the manufacturing process or from added ingredients.
Dust explosion class	:	not capable of dust explosion
Particle size	:	Not applicable

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. The substance or mixture does not emit flammable gases in contact with water. Not corrosive to metals Stable
Conditions to avoid	:	None known.
Incompatible materials	:	not known
Hazardous decomposition products	:	At high temperatures: thermal decomposition giving toxic products. Carbon oxides Nitrogen oxides (NOx) The product does not contain any chemical groups which suggest self-reactive properties, nor is the estimated SADT less than 75 °C, nor is the exothermic decomposition energy higher than 300 J/g.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye contact
Skin contact
Inhalation

Acute toxicity

Product:

Acute oral toxicity	:	Acute toxicity estimate: > 5,000 mg/kg Method: Calculation method
Acute inhalation toxicity	:	Acute toxicity estimate: 9.65 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method
Acute dermal toxicity	:	Remarks: not tested.
Acute toxicity (other routes of administration)	:	Remarks: no data available

Components:

2,2,4,4-Tetramethyl-7-oxa-3,20-diazadispiro[5.1.11.2]-henicosan-21-one:

Acute oral toxicity	:	LD50 (Rat, female): 2,800 mg/kg Method: OECD Test Guideline 401 GLP: no
Acute inhalation toxicity	:	LC50 (Rat, male and female): 1.67 mg/l

Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
GLP: no

Acute dermal toxicity : Remarks: no data available

Skin corrosion/irritation

Product:

Remarks: not tested.

Components:

2,2,4,4-Tetramethyl-7-oxa-3,20-diazadispiro[5.1.11.2]-henicosan-21-one:

Species: Rabbit
Exposure time: 24 h
Method: OECD Test Guideline 404
Result: No skin irritation
GLP: no

Serious eye damage/eye irritation

Product:

Result: Risk of serious damage to eyes.

Components:

2,2,4,4-Tetramethyl-7-oxa-3,20-diazadispiro[5.1.11.2]-henicosan-21-one:

Species: Rabbit
Result: Risk of serious damage to eyes.
Exposure time: 24 h
Method: OECD Test Guideline 405
GLP: no

Respiratory or skin sensitisation

Product:

Remarks: not tested.

Components:

2,2,4,4-Tetramethyl-7-oxa-3,20-diazadispiro[5.1.11.2]-henicosan-21-one:

Test Type: Mouse local lymphnode assay
Exposure routes: Dermal
Species: Mouse
Method: OECD Test Guideline 429
Result: Not a skin sensitizer.
GLP: yes

Germ cell mutagenicity

Product:

Germ cell mutagenicity - Assessment : No information available.

Components:

2,2,4,4-Tetramethyl-7-oxa-3,20-diazadispiro[5.1.11.2]-henicosan-21-one:

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test
Test system: Chinese hamster lung cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative
GLP: yes

Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster lung cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative
GLP: yes

Test Type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes

Germ cell mutagenicity - Assessment : In vitro tests did not show mutagenic effects

Carcinogenicity

Product:

Carcinogenicity - Assessment : No information available.

Components:

2,2,4,4-Tetramethyl-7-oxa-3,20-diazadispiro[5.1.11.2]-henicosan-21-one:

Carcinogenicity - Assessment : No information available.

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.

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:

2,2,4,4-Tetramethyl-7-oxa-3,20-diazadispiro[5.1.11.2]-henicosan-21-one:

Effects on foetal development : Test Type: Pre-natal
Species: Rat, male and female
Strain: Sprague-Dawley
Application Route: oral (gavage)
Dose: 10, 25, 62,5 mg/kg bw milligram per kilogram
Duration of Single Treatment: 21 d
General Toxicity Maternal: NOAEL: 25 mg/kg body weight
Embryo-foetal toxicity: NOAEL: 25 mg/kg body weight
Method: OECD Test Guideline 414
GLP: yes

Reproductive toxicity - Assessment : No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments.

STOT - single exposure

Components:

2,2,4,4-Tetramethyl-7-oxa-3,20-diazadispiro[5.1.11.2]-henicosan-21-one:

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

STOT - repeated exposure

Components:

2,2,4,4-Tetramethyl-7-oxa-3,20-diazadispiro[5.1.11.2]-henicosan-21-one:

Exposure routes: Oral
Target Organs: Cardio-vascular system
Assessment: The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.

Repeated dose toxicity

Product:

Remarks: not tested.

Components:

2,2,4,4-Tetramethyl-7-oxa-3,20-diazadispiro[5.1.11.2]-henicosan-21-one:

Species: Rat, female
NOAEL: 75 mg/kg bw/day
Application Route: oral (gavage)
Exposure time: 13 weeks

Number of exposures: daily
Dose: 10, 25 and 75 mg/kg
Group: yes
Subsequent observation period: 4 weeks
Method: OECD Test Guideline 408
GLP: yes

Species: Rat, male
NOAEL: 225 mg/kg bw/day
Application Route: oral (gavage)
Exposure time: 13 weeks
Number of exposures: daily
Dose: 25, 75 and 225 mg/kg
Group: yes
Subsequent observation period: 4 weeks
Method: OECD Test Guideline 408
GLP: yes

Aspiration toxicity

Components:

2,2,4,4-Tetramethyl-7-oxa-3,20-diazadispiro[5.1.11.2]-henicosan-21-one:

no data available

Experience with human exposure

Product:

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

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish :
Remarks: not tested.

Toxicity to daphnia and other aquatic invertebrates :
Remarks: not tested.

Toxicity to algae/aquatic plants :
Remarks: not tested.

Toxicity to microorganisms : Remarks: not tested.

Ecotoxicology Assessment

Acute aquatic toxicity : no data available

Components:

2,2,4,4-Tetramethyl-7-oxa-3,20-diazadispiro[5.1.11.2]-henicosan-21-one:

Toxicity to fish	:	LC50 (Danio rerio (zebra fish)): > 3.62 mg/l End point: mortality Exposure time: 96 h Test Type: static test Method: OECD Test Guideline 203 GLP: yes
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 100 mg/l End point: Immobilization Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202 GLP: yes Remarks: No toxicity at the limit of solubility
Toxicity to algae/aquatic plants	:	EC50 (Desmodesmus subspicatus (green algae)): 0.398 mg/l End point: Growth rate Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201 GLP: yes
M-Factor (Acute aquatic toxicity)	:	1
Toxicity to fish (Chronic toxicity)	:	Remarks: no data available
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	Remarks: no data available
Toxicity to microorganisms	:	EC50 (activated sludge): 65.9 mg/l End point: Bacteria toxicity (respiration inhibition) Exposure time: 3 h Test Type: static test Method: OECD Test Guideline 209 GLP: yes

Persistence and degradability

Product:

Biodegradability	:	Test Type: aerobic Inoculum: activated sludge, non-adapted Concentration: 15 mg/l Result: Not readily biodegradable. Exposure time: 28 d Method: OECD Test Guideline 301B GLP: yes

Components:

2,2,4,4-Tetramethyl-7-oxa-3,20-diazadispiro[5.1.11.2]-henicosan-21-one:

Biodegradability : aerobic
Inoculum: activated sludge
Concentration: 15 mg/l
Carbon dioxide (CO2)
Result: Not readily biodegradable.
Biodegradation: 35 %
Exposure time: 28 d
Method: OECD Test Guideline 301B
GLP: yes

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: not available

Components:

2,2,4,4-Tetramethyl-7-oxa-3,20-diazadispiro[5.1.11.2]-henicosan-21-one:

Bioaccumulation : Species: Cyprinus carpio (Carp)
Bioconcentration factor (BCF): 3.2 - 6.8
Exposure time: 56 d
Concentration: 0.05 mg/l
Method: OECD Test Guideline 305C
GLP: yes

Mobility in soil

Components:

2,2,4,4-Tetramethyl-7-oxa-3,20-diazadispiro[5.1.11.2]-henicosan-21-one:

Distribution among environmental compartments : Koc method
Medium: Soil
log Koc: 7.4
Method: OECD Test Guideline 121

Other adverse effects

Product:

Environmental fate and pathways : Remarks: no data available

Additional ecological information : no data available

Components:

2,2,4,4-Tetramethyl-7-oxa-3,20-diazadispiro[5.1.11.2]-henicosan-21-one:

Results of PBT and vPvB assessment : The substance is not identified as a PBT or as a vPvB substance.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

RCRA - Resource Conservation and Recovery Authorization Act	:	No -- Not as sold.
Waste Code	:	NONE
Waste from residues	:	Can be landfilled or incinerated, when in compliance with local regulations.
Contaminated packaging	:	Dispose of in accordance with local regulations.

SECTION 14. TRANSPORT INFORMATION

DOT not restricted

IATA

Proper shipping name:	Environmentally hazardous substance, liquid, n.o.s.
Class:	9
Packing group:	III
UN/ID number:	UN 3082
Primary risk:	9
Remarks:	Shipment permitted
Hazard inducer(s):	STERICALLY HINDERED AMINE

IMDG

Proper shipping name:	Environmentally hazardous substance, liquid, n.o.s.
Class:	9
Packing group:	III
UN no.:	UN 3082
Primary risk:	9
Hazard inducer(s):	STERICALLY HINDERED AMINE
Marine pollutant:	Marine Pollutant
EmS:	F-A S-F

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

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 : Serious eye damage or eye irritation
Specific target organ toxicity (single or repeated exposure)

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 Water Act

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

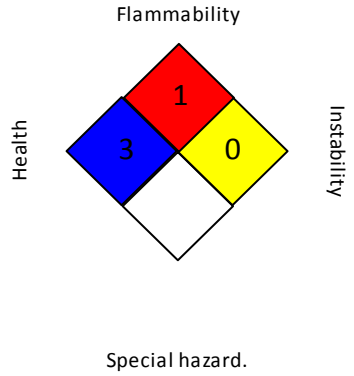
The components of this product are reported in the following inventories:

TSCA : One or more of the components of this product is not listed on the Toxic Substances Control Act (TSCA) Inventory. The product is thus sold under the restriction that it is only for use in research and development. This product must be used under the supervision of a technically qualified individual capable of understanding its potential hazards.

SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



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 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

This substance may be toxic to fish or aquatic organisms.
Do not allow to enter drains or waterways
Dispose of waste product or used containers according to local regulations.
Observe national and local legal requirements

Revision Date : 03/13/2019

US / EN