

LQ ABS 001.000% BC31055 RED HIFORMER LC

Page 1

Substance key: 000000781899	Revision Date: 05/02/2019
Version : 1 - 0 / USA	Date of printing :05/02/2019

SECTION 1. IDENTIFICATION

Identification of the company:	Clariant Plastics & Coating USA LLC 4000 Monroe Road Charlotte, NC, 28205 Talanhara Na 44 704 204 7000
	Information of the substance/preparation: BU Masterbatches Product Stewardship +1-704-331-7710
	Emergency tel. number: +1 800-424-9300 CHEMTREC
Trade name: Material number:	LQ ABS 001.000% BC31055 RED HIFORMER LC FK33688326
Chemical family:	Colourant preparation Carrier mixure: Paraffin oil / Fatty acid ester
Primary product use:	Additive for plastic material processing

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200

Not a hazardous substance or mixture.

GHS label elements

Not a hazardous substance or mixture.

Other hazards

Hazards Not Otherwise Classified: No particular hazards known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Colourant preparation Carrier mixure: Paraffin oil / Fatty acid ester

Components

Chemical name	CAS-No.	Concentration (% w/w)
3-Hydroxy-2-naphthoic acid	92-70-6	0.1 - 1
2-[Bis(2-hydroxyethyl)amino]ethyl	10277-04-0	0.1 - 1
oleate		
Silica, amorphous, fumed, crystalline	112945-52-5	0.1 - 1
free		
N,N'-Ethylenedi(stearamide)	110-30-5	1 - 5
N,N'-Ethylenedi(stearamide)	110-30-5	1 - 5

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



LQ ABS 001.000% BC31055 RED HIFORMER LC

Page 2

Substance key: 000000781899	Revision Date: 05/02/2019
Version : 1 - 0 / USA	Date of printing :05/02/2019
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	 Remove contaminated clothing and shoes. Wash off immediately with plenty of water for at least 15 minutes. Wash off with soap and water. Get medical attention if irritation develops and persists.
In case of eye contact	 Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention immediately if irritation develops and persists.
If swallowed	 Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get 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	: Aspiration hazard if swallowed - can enter lungs and cause damage.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media :	Water spray Foam Carbon dioxide (CO2) Dry chemical
Unsuitable extinguishing : media	High volume water jet
Specific hazards during : firefighting	In case of fire hazardous decomposition products may be produced such as: Carbon monoxide Carbon dioxide (CO2) Carbon oxides Silicon oxides Formaldehyde Nitrogen oxides (NOx)
Further information :	Combustible material In the event of fire and/or explosion do not breathe fumes. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion Do not allow run-off from fire fighting to enter drains or water



LQ ABS 001.000% BC31055 RED HIFORMER LC

Page 3

Substance key: 000000781899	Revision Date: 05/02/2019
Version : 1 - 0 / USA	Date of printing :05/02/2019
	courses. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Special protective equipment : for firefighters	Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear.
SECTION 6. ACCIDENTAL RELEAS	E 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.
Environmental precautions :	Do not allow contact with soil, surface or ground water. Prevent product from entering drains.
Methods and materials for : containment and cleaning up	Prevent product from entering drains. Non-sparking tools should be used. Take measures to prevent the build up of electrostatic charge. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). Clean contaminated surface thoroughly.

SECTION 7. HANDLING AND STORAGE

Advice on protection against : fire and explosion	Take measures to prevent the build up of electrostatic charge.
Advice on safe handling	 Handle in accordance with good industrial hygiene and safety practice. Use only with adequate ventilation/personal protection. For personal protection see section 8. Avoid contact with skin, eyes and clothing. Use only with adequate ventilation. Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. Keep away from heat, sparks and open flames. Store in proper container and keep container closed when not in use.
Conditions for safe storage	Keep container tightly closed in a cool, well-ventilated place. Protect from moisture. Keep away from direct sunlight.
Further information on storage conditions	Store in a cool, dry, well-ventilated area. Keep container sealed when not in use. Store away from flammable or combustible materials. Keep in an area equipped with sprinklers. Keep from freezing.

CLARIANT

LQ ABS 001.000% BC31055 RED HIFORMER LC

Page 4

Substance key: 000000781899	
Version : 1 - 0 / USA	

Revision Date: 05/02/2019 Date of printing :05/02/2019

Materials to avoid

: not required

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
N,N'-Ethylenedi(stearamide)	110-30-5	TWA (Inhalable fraction)	10 mg/m3	ACGIH
		TWA (Respirable fraction)	3 mg/m3	ACGIH
Silica, amorphous, fumed, crystalline free	112945-52-5	TWA (Dust)	20 Million particles per cubic foot (Silica)	OSHA Z-3
		TWA (Dust)	80 mg/m3 / %SiO2 (Silica)	OSHA Z-3

Engineering measures : Use engineering

: Use engineering controls such as local or general exhaust to maintain airborne concentrations below exposure limits.

Personal protective equipment

Respiratory protection	:	Respiratory protection is not required under normal use. Use NIOSH/MSHA approved respirators following manufacturer's recommendations where dust, mist, or spray mist may be generated.
Hand protection Remarks	:	Nitrile rubber gloves.
Eye protection	:	Safety glasses with side-shields
Skin and body protection	:	Wear protective clothing, including long sleeves and gloves, to prevent skin contact.
Hygiene measures	:	The usual Industrial Hygiene precautions must be taken during work, in particular: do not drink, eat or smoke during the handling of the product and clean hands and face during work intervals and after work.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

CLARIANT

LQ ABS 001.000% BC31055 RED HIFORMER LC

Substance key: 000000781899		Revision Date: 05/02/2019
Version : 1 - 0 / USA		Date of printing :05/02/2019
Colour	:	red
Odour	:	characteristic
Odour Threshold	:	Not applicable
рН	:	not tested.
Melting point	:	Not applicable
Boiling point	:	not determined
Flash point	:	not tested.
Evaporation rate	:	not tested.
Flammability (solid, gas)	:	Not applicable
Self-ignition	:	not tested.
Upper explosion limit / upper flammability limit	:	not tested.
Lower explosion limit / Lower flammability limit	:	not tested.
Vapour pressure	:	not tested.
Relative vapour density	:	Not applicable
Relative density	:	not available
Density	:	approx. 0.52 g/cm3 Value determined from data on raw material.
Solubility(ies) Water solubility	:	not determined
Partition coefficient: n- octanol/water	:	This property is not applicable for mixtures.
Decomposition temperature	:	To the best of our current knowledge, no thermal decomposition of the product is expected if it is processed according to good manufacturing practices. See section 10.4. "Conditions to avoid"
Viscosity Viscosity, dynamic	:	not tested.
Viscosity, kinematic	:	not tested.
Explosive properties	:	no data available no data available

CLARIANT

LQ ABS 001.000% BC31055 RED HIFORMER LC

Page 6

Substance key: 000000781899		Revision Date: 05/02/2019
Version : 1 - 0 / USA		Date of printing :05/02/2019
Oxidizing properties	:	not available
Surface tension	:	not tested.
Particle size	:	Product specific
SECTION 10. STABILITY AND RE	AC	ΤΙΝΙΤΥ
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.
Conditions to avoid	:	Keep away from heat, sparks, open flames, and other sources of ignition.
Incompatible materials	:	Strong acids and oxidizing agents Strong acids and strong bases Strong oxidizing agents
Hazardous decomposition products	:	Possible in traces: Nitrogen oxides (NOx)

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes	of e	exposure
Inhalation		
Eye contact		
Acute toxicity		
Product:		
Acute dermal toxicity	:	Acute toxicity estimate: > 5,000 mg/kg Method: Calculation method
Components:		
3-Hydroxy-2-naphthoic acid:		
Acute oral toxicity	:	LD50 (Rat, male and female): 823 mg/kg Method: OECD Test Guideline 401 GLP: yes
Acute inhalation toxicity	:	Remarks: no data available
Acute dermal toxicity	:	Remarks: no data available
Acute toxicity (other routes of	:	

CLARIANT

LQ ABS 001.000% BC31055 RED HIFORMER LC

Substance key: 000000781899	Revision Date: 05/02/2019
Version : 1 - 0 / USA	Date of printing :05/02/2019
administration)	Remarks: no data available
N,N'-Ethylenedi(stearamide):	
Acute oral toxicity :	LD50 (Rat, male and female): > 5,000 mg/kg Method: OECD Test Guideline 401
Acute inhalation toxicity :	LC50 (Rat, male and female): > 6.3 mg/l Test atmosphere: dust/mist Method: OECD Test Guideline 403
Acute dermal toxicity :	LD50 (Rabbit, male and female): > 2,000 mg/kg Method: OECD Test Guideline 402
Skin corrosion/irritation	
Product: Result: No skin irritation	
Components:	
3-Hydroxy-2-naphthoic acid:	
Species: Rabbit Exposure time: 4 h Method: OECD Test Guideline 40 Result: No skin irritation GLP: yes	4
N,N'-Ethylenedi(stearamide):	
Species: Rabbit Method: OECD Test Guideline 40 Result: No skin irritation	4
Serious eye damage/eye irritati	on
Product:	
Result: No eye irritation	
Components:	
3-Hydroxy-2-naphthoic acid:	
Species: Rabbit	
Result: Risk of serious damage to Exposure time: 24 h) eyes.
Method: OECD Test Guideline 40	5
GLP: yes	
N,N'-Ethylenedi(stearamide):	
Species: Rabbit	
Result: No eye irritation Method: OECD Test Guideline 40	5

CLARIANT

LQ ABS 001.000% BC31055 RED HIFORMER LC

Page 8

Substance key: 000000781899	Revision Date: 05/02/2019
Version : 1 - 0 / USA	Date of printing :05/02/2019

Respiratory or skin sensitisation

Product:

Result: non-sensitizing

Components:

3-Hydroxy-2-naphthoic acid:

Test Type: Maximisation Test Exposure routes: Dermal Species: Guinea pig Method: OECD Test Guideline 406 Result: Not a skin sensitizer. GLP: yes

Assessment:

Harmful if swallowed.

N,N'-Ethylenedi(stearamide):

Species: Mouse Method: OECD Test Guideline 429 Result: Not a skin sensitizer.

Germ cell mutagenicity

Components:

3-Hydroxy-2-naphthoic acid:	
Genotoxicity in vitro :	Test Type: Ames test Test system: Salmonella typhimurium Concentration: 4 - 1000 µg/plate Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative GLP: yes
	Test Type: Ames test Test system: Escherichia coli Concentration: 4 - 1000 µg/plate Metabolic activation: with and without metabolic activation Method: OECD Guide-line 472 Result: negative GLP: yes
Genotoxicity in vivo :	Test Type: Cytogenetic assay Species: Chinese hamster (male and female) Strain: Other Cell type: Bone marrow cells Application Route: Oral Exposure time: einmalig Dose: 2000 mg/kg Kgw. Method: OECD Test Guideline 475



LQ ABS 001.000% BC31055 RED HIFORMER LC

Substance key: 000000781899	Revision Date: 05/02/2019
Version : 1 - 0 / USA	Date of printing :05/02/2019
	Result: negative GLP: yes
Germ cell mutagenicity - Assessment	: Weight of evidence does not support classification as a germ cell mutagen.
N,N'-Ethylenedi(stearamide):	
Genotoxicity in vitro	: Test Type: Ames test Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative
	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
	Test Type: Mammalian cell gene mutation assay Test system: mouse lymphoma cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative
Germ cell mutagenicity - Assessment	: In vitro tests did not show mutagenic effects
Carcinogenicity	
Components:	
3-Hydroxy-2-naphthoic acid:	
Carcinogenicity - Assessment	: No information available.
N.N'-Ethvlenedi(stearamide):	
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.



LQ ABS 001.000% BC31055 RED HIFORMER LC

Page 10

ston::1-0/USA Date of printing::05/02/ Reproductive toxicity Components: 3-Hydroxy-2-naphthoic acid: Effects on fertility Effects on fertility : Test Type: One generation study Species: Rat, male and female Strain: Sprague-Dawley Application Route: oral (gavage) Dose: 0, 12,5 - 50 - 200 mg/kg body weight Fertility: NOEL: 50 - 200 mg/kg body weight Fertility: NOEL: 50 - 200 mg/kg body weight Fertility: NOEL: 50 - 200 mg/kg body weight Species: Rat Effects on foetal : Test Type: reproductive and developmental toxicity study Species: Rat Application Route: oral (gavage) Dose: 12,5 - 50 - 200 mg/kg Dod weight Method: OECD Test Guideline 415 GLP: yes Effects on foetal : Test Type: reproductive and developmental toxicity study Species: Rat Application Route: oral (gavage) Dose: 12,5 - 50 - 200 mg/kg body weight Teratogenicity: NOAEL: 200 mg/kg body weight Method: OECD Test Guideline 415 GLP: yes Reproductive toxicity - Assessment : No evidence of adverse effects on sexual function and fer or on development, based on animal experiments. N,N'-Ethylenedi(stearamide): : Test Type: Pre-natal Species: Rat Strain: Sprague-Dawley Application Route: oral (gavage) General Toxicity Maternal: NOAEL: >= 1,000 mg/kg body weight Method: OECD Test Guideline 414 Reproductive toxicity - assessment : No evidence of adverse effects on sexual function and fer or on development based on sexual function and fer or on devidence thased on sexual function and fer or on devidence adverse effects on sexual function and fer or on devi	ostance key: 00000781899	Revision Date: 05/02/20
Reproductive toxicity Components: 3-Hydroxy-2-naphthoic acid: Effects on fertility : Test Type: One generation study Species: Rat, male and female Strain: Sprague-Dawley Application Route: oral (gavage) Dose: 0, 12,5 - 50 - 200 mg/kg General Toxicity - Parent: NOEL: 12.5 - 50 mg/kg body we General Toxicity - NOEL: 50 mg/kg body weight Fertility: NOEL: 50 - 200 mg/kg body weight Method: OECD Test Guideline 415 GLP: yes Effects on foetal development : Test Type: reproductive and developmental toxicity study Species: Rat Application Route: oral (gavage) Dose: 12,5 - 50 - 200 mg/kg body weight Teratagenicity: NOAEL: 50 mg/kg body weight Embryo-foetal toxicity NOEL: 50 mg/kg body weight Embryo-foetal toxicity NOEL: 50 mg/kg body weight Embryo-foetal toxicity: NOEL: 200 mg/kg body weight Embryo-foetal toxicity: NOEL: 200 mg/kg body weight Method: OECD Test Guideline 415 GLP: yes Reproductive toxicity - Assessment : No evidence of adverse effects on sexual function and fer or on development, based on animal experiments. N,N'-Ethylenedi(stearamide): : Effects on foetal development : Test Type: Pre-natal Species: Rat Strain: Sprague-Dawley Application Route: oral (gavage) General Toxicity Maternai: NOAEL: >= 1,000 mg/kg body weight Method: OECD Test Guideline 414 Reproductive toxicity - Assessment : No evidence of adverse effects on sexual function and fer or on development, based on animal experiments	sion : 1 - 0 / USA	Date of printing :05/02/20
Components: 3-Hydroxy-2-naphthoic acid: Effects on fertility : Test Type: One generation study Species: Rat, male and female Strain: Sprague-Dawley Application Route: oral (gavage) Dose: 0, 12,5 - 50 - 200 mg/kg General Toxicity - Parent: NOEL: 12.5 - 50 mg/kg body weight Fertility: NOEL: 50 - 200 mg/kg body weight Method: OECD Test Guideline 415 GLP: yes Effects on foetal : Test Type: reproductive and developmental toxicity study Species: Rat Application Route: oral (gavage) Dose: 12,5 - 50 - 200 mg/kg Duration of Single Treatment: > 98 d General Toxicity Maternal: NOEL: 50 mg/kg body weight Teratogenicity: NOEL: 200 mg/kg body weight Embryo-foetal toxicity: NOEL: 200 mg/kg body weight Embryo-foetal toxicity Maternal: NOEL: 50 mg/kg body weight Method: OECD Test Guideline 415 GLP: yes NN-Ethylenedi(stearamide): : Test Type: Pre-natal Species: Rat Strain: Sprague-Dawley Application Route: oral (gavage) General Toxicity Maternal: NOAEL: >= 1,000 mg/kg body weight Method: OECD Test Guideline 414 Reproductive toxicity - Secessment : No evidence of adverse effects on sexual function and fer or on development. based on animal experiments.	Reproductive toxicity	
3-Hydroxy-2-naphthoic acid: Effects on fertility : Test Type: One generation study Species: Rat, male and female Strain: Sprague-Dawley Application Route: oral (gavage) Dose: 0, 12,5 - 50 - 200 mg/kg General Toxicity - Parent: NOEL: 12.5 - 50 mg/kg body weight Fertility: NOEL: 50 - 200 mg/kg body weight Method: OECD Test Guideline 415 GLP: yes Effects on foetal : Test Type: reproductive and developmental toxicity study Species: Rat Application Route: oral (gavage) Dose: 12,5 - 50 - 200 mg/kg Duration of Single Treatment: > 98 d General Toxicity Maternal: NOEL: 50 mg/kg body weight Teratogenicity: NOAEL: 200 mg/kg body weight Embryo-foetal toxicity: NOEL: 200 mg/kg body weight Embryo-foetal toxicity: NOEL: 200 mg/kg body weight Embryo-foetal toxicity: NOEL: 200 mg/kg body weight Method: OECD Test Guideline 415 GLP: yes Reproductive toxicity - Assessment : Test Type: Pre-natal Species: Rat Strain: Sprague-Dawley Application Route: oral (gavage) General Toxicity Maternal: NOAEL: >= 1,000 mg/kg body weight Method: OECD Test Guideline 414 Reproductive toxicity - Assessment : Test Type: Pre-natal Species: Rat Strain: Sprague-Dawley Application Route: oral (gavage) General Toxicity Maternal: NOAEL: >= 1,000 mg/kg body weight Method: OECD Test Guideline 414	Components:	
Effects on fertility : Test Type: One generation study Species: Rat, male and female Strain: Sprague-Dawley Application Route: oral (gavage) Dose: 0, 12,5 - 50 - 200 mg/kg Dose: 0, 12,5 - 50 - 200 mg/kg body weight General Toxicity F1: NOEL: 50 mg/kg body weight Fertility: NOEL: 50 - 200 mg/kg body weight Fertility: NOEL: 50 - 200 mg/kg body weight Method: OECD Test Guideline 415 GLP: yes Effects on foetal : Test Type: reproductive and developmental toxicity study development Species: Rat Application Route: oral (gavage) Dose: 12,5 - 50 - 200 mg/kg Dorarity: NOAEL: 200 mg/kg Dody weight Teratogenicity: NOAEL: 200 mg/kg body weight Teratogenicity: NOAEL: 200 mg/kg body weight Teratogenicity: NOAEL: 200 mg/kg body weight Method: OECD Test Guideline 415 GLP: yes No evidence of adverse effects on sexual function and fer or on development, based on animal experiments. Species: Rat NN'-Ethylenedi(stearamide): Effects on foetal Effects on foetal : Test Type: Pre-natal development Species: Rat Species: Rat Strain: Sprague-Dawley Application Route: oral (gavage) General Toxicity Maternal: NOAEL: >= 1,000 mg/kg	3-Hydroxy-2-naphthoic acid:	
Effects on foetal development:Test Type: reproductive and developmental toxicity study Species: Rat Application Route: oral (gavage) Dose: 12,5 - 50 - 200 mg/kg Duration of Single Treatment: > 98 d General Toxicity Maternal: NOEL: 50 mg/kg body weight Teratogenicity: NOAEL: 200 mg/kg body weight Embryo-foetal toxicity: NOEL: 200 mg/kg body weight Method: OECD Test Guideline 415 GLP: yesReproductive toxicity - Assessment:No evidence of adverse effects on sexual function and fer or on development, based on animal experiments.N,N'-Ethylenedi(stearamide): Effects on foetal development:Test Type: Pre-natal Species: Rat Species: Rat Or on development, based on animal experiments.N,N'-Ethylenedi(stearamide): Effects on foetal development:Test Type: Pre-natal Species: Rat Strain: Sprague-Dawley Application Route: oral (gavage) General Toxicity Maternal: NOAEL: >= 1,000 mg/kg body weight Method: OECD Test Guideline 414Reproductive toxicity - Assessment:No evidence of adverse effects on sexual function and fer or on development based on animal experiments	Effects on fertility	 Test Type: One generation study Species: Rat, male and female Strain: Sprague-Dawley Application Route: oral (gavage) Dose: 0, 12,5 - 50 - 200 mg/kg General Toxicity - Parent: NOEL: 12.5 - 50 mg/kg body weig General Toxicity F1: NOEL: 50 mg/kg body weight Fertility: NOEL: 50 - 200 mg/kg body weight Method: OECD Test Guideline 415 GLP: yes
Reproductive toxicity - : No evidence of adverse effects on sexual function and fer or on development, based on animal experiments. N,N'-Ethylenedi(stearamide): : Test Type: Pre-natal Species: Rat Strain: Sprague-Dawley Application Route: oral (gavage) General Toxicity Maternal: NOAEL: >= 1,000 mg/kg body weight Method: OECD Test Guideline 414 Reproductive toxicity - : No evidence of adverse effects on sexual function and fer or on development	Effects on foetal development	 Test Type: reproductive and developmental toxicity study Species: Rat Application Route: oral (gavage) Dose: 12,5 - 50 - 200 mg/kg Duration of Single Treatment: > 98 d General Toxicity Maternal: NOEL: 50 mg/kg body weight Teratogenicity: NOAEL: 200 mg/kg body weight Embryo-foetal toxicity: NOEL: 200 mg/kg body weight Method: OECD Test Guideline 415 GLP: yes
N,N'-Ethylenedi(stearamide): Effects on foetal : Test Type: Pre-natal development Species: Rat Strain: Sprague-Dawley Application Route: oral (gavage) General Toxicity Maternal: NOAEL: >= 1,000 mg/kg body weight Method: OECD Test Guideline 414 Reproductive toxicity - : No evidence of adverse effects on sexual function and fer	Reproductive toxicity - Assessment	: No evidence of adverse effects on sexual function and fertili or on development, based on animal experiments.
Effects on foetal development : Test Type: Pre-natal Species: Rat Strain: Sprague-Dawley Application Route: oral (gavage) General Toxicity Maternal: NOAEL: >= 1,000 mg/kg body weight Method: OECD Test Guideline 414 Reproductive toxicity - Assessment : No evidence of adverse effects on sexual function and fer	N,N'-Ethylenedi(stearamide)	
Reproductive toxicity - : No evidence of adverse effects on sexual function and fer	Effects on foetal development	 Test Type: Pre-natal Species: Rat Strain: Sprague-Dawley Application Route: oral (gavage) General Toxicity Maternal: NOAEL: >= 1,000 mg/kg body weight Method: OECD Test Guideline 414
Assessment of on development, based on animal experiments.	Reproductive toxicity - Assessment	: No evidence of adverse effects on sexual function and fertili or on development, based on animal experiments.
	Components:	
<u>Components:</u>	3-Hydroxy-2-naphthoic acid:	

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

N,N'-Ethylenedi(stearamide):

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

CLARIANT

LQ ABS 001.000% BC31055 RED HIFORMER LC

Page 11

Substance key: 000000781899	Revision Date: 05/02/2019
Version : 1 - 0 / USA	Date of printing :05/02/2019

STOT - repeated exposure

Components:

3-Hydroxy-2-naphthoic acid:

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

N,N'-Ethylenedi(stearamide):

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

Repeated dose toxicity

Components:

3-Hydroxy-2-naphthoic acid:

Species: Rat, male and female NOEL: 12 - 60 mg/kg bw/day Application Route: oral (gavage) Exposure time: 28 Tage Number of exposures: täglich Dose: 0, 12, 60, 300 mg/kg Kgw./Tag Group: yes Method: OECD Test Guideline 407 GLP: yes

Repeated dose toxicity - : Harmful if swallowed. Assessment

N,N'-Ethylenedi(stearamide):

Species: Rat, male and female NOEL: >= 1000 mg/kg bw/day Application Route: oral (gavage) Method: OECD Test Guideline 408

Aspiration toxicity

Components:

3-Hydroxy-2-naphthoic acid:

No aspiration toxicity classification

N,N'-Ethylenedi(stearamide):

no data available

Experience with human exposure

:

Product:

General Information

CLARIANT

LQ ABS 001.000% BC31055 RED HIFORMER LC

Substance key: 000000781899	Revision Date: 05/02/2019
Version : 1 - 0 / USA	Date of printing :05/02/2019
	labelling (see section 2).
SECTION 12. ECOLOGICAL INFOR	MATION
Ecotoxicity	
Product: Toxicity to fish :	Remarks: no data available
Components:	
3-Hydroxy-2-naphthoic acid:	
Toxicity to fish :	LC50 (Danio rerio (zebra fish)): 68 mg/l End point: mortality Exposure time: 96 h Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 203 GLP: yes Remarks: The details of the toxic effect relate to the nominal concentration.
Toxicity to daphnia and other : aquatic invertebrates	EC50 (Daphnia magna (Water flea)): 106 mg/l End point: Immobilization Exposure time: 48 h Test Type: Immobilization Analytical monitoring: yes Method: OECD Test Guideline 202 GLP: yes Remarks: The details of the toxic effect relate to the nominal concentration.
Toxicity to algae/aquatic : plants	ErC50 (Pseudokirchneriella subcapitata (microalgae)): 65.3 mg/l End point: Growth rate Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201 GLP: yes Remarks: The details of the toxic effect relate to the nominal concentration.
	NOEC (Pseudokirchneriella subcapitata (microalgae)): 6.8 mg/l End point: Growth rate Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201 GLP: yes Remarks: The details of the toxic effect relate to the nominal concentration.



LQ ABS 001.000% BC31055 RED HIFORMER LC

Substance key: 000000781899	Revision Date: 05/02/2019
Version : 1 - 0 / USA	Date of printing :05/02/2019
Toxicity to fish (Chronic : toxicity)	Remarks: no data available
Toxicity to daphnia and other : aquatic invertebrates (Chronic toxicity)	NOEC (Daphnia magna (Water flea)): 10.4 mg/l End point: Reproduction rate Exposure time: 21 d Test Type: semi-static test Analytical monitoring: yes Method: OECD Test Guideline 211 GLP: yes
	EC50 (Daphnia magna (Water flea)): 24 mg/l End point: Reproduction rate Exposure time: 21 d Test Type: semi-static test Analytical monitoring: yes Method: OECD Test Guideline 211 GLP: yes
Toxicity to microorganisms :	EC50 (activated sludge): 2,171 mg/l End point: Bacteria toxicity (respiration inhibition) Exposure time: 3 h Test Type: aquatic Analytical monitoring: no Method: OECD Test Guideline 209 GLP: No information available.
Ecotoxicology Assessment	
Chronic aquatic toxicity :	Harmful to aquatic life with long lasting effects.
N,N'-Ethylenedi(stearamide):	
Toxicity to fish :	LC50 (Oryzias latipes (Orange-red killifish)): 0.027 mg/l End point: mortality Exposure time: 96 h Method: OECD Test Guideline 203 Remarks: No toxicity at the limit of solubility
Toxicity to daphnia and other : aquatic invertebrates	EC50 (Daphnia magna (Water flea)): 0.0022 mg/l Exposure time: 48 h Test Type: semi-static test Method: OECD Test Guideline 202 Remarks: No toxicity at the limit of solubility
Toxicity to algae/aquatic : plants	NOEC (Pseudokirchneriella subcapitata (algae)): 0.053 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 Remarks: No toxicity at the limit of solubility
Toxicity to fish (Chronic : toxicity)	Remarks: no data available

_



LQ ABS 001.000% BC31055 RED HIFORMER LC

Substance key: 000000781899	Revision Date: 05/02/2019
Version : 1 - 0 / USA	Date of printing :05/02/2019
Toxicity to daphnia and other : aquatic invertebrates (Chronic toxicity)	EC50 (Daphnia magna (Water flea)): 0.0056 mg/l Exposure time: 21 d Method: OECD Test Guideline 211 Remarks: No toxicity at the limit of solubility
Toxicity to microorganisms :	EC50 (activated sludge): > 1,000 mg/l Exposure time: 3 h Test Type: static test Method: OECD Test Guideline 209
Toxicity to soil dwelling : organisms	NOEC (Eisenia fetida (earthworms)): >= 1,000 mg/kg Exposure time: 56 d Method: OECD Test Guideline 222
Sediment toxicity :	NOEC: >= 1000 mg/kg dry weight (d.w.) Test Type: static test Sediment: Artificial sediment Exposure duration: 28 d Method: OECD Test Guideline 218
Persistence and degradability	
Components:	
2 Hydroxy 2 pophthesis sold	
Biodegradability :	aerobic Inoculum: activated sludge Concentration: 100 mg/l Biochemical Oxygen Demand (BOD) Result: Not readily biodegradable. Biodegradation: 1.3 % Exposure time: 14 d Method: OECD Test Guideline 301C
Physico-chemical : removability	Remarks: Not readily biodegradable.
Photodegradation :	Test Type: air Sensitiser: OH Concentration: 5,000,001 1/cm3 Rate constant: 2.42091E-11 cm3/s Degradation (indirect photolysis): 50 % Method: other (calculated)
N,N'-Ethylenedi(stearamide):	
Biodegradability	aerobic Inoculum: activated sludge Carbon dioxide (CO2) Result: Not readily biodegradable. Biodegradation: 5.5 % Exposure time: 28 d Method: OECD Test Guideline 301B



LQ ABS 001.000% BC31055 RED HIFORMER LC

Substance key: 000000781899	Revision Date: 05/02/2019
Version : 1 - 0 / USA	Date of printing :05/02/2019
Bioaccumulative potential	
Product: Bioggrumulation	Pamarka: not tostad
Bioaccumulation .	Remarks. not tested.
Components:	
3-Hydroxy-2-naphthoic acid:	
Bioaccumulation :	Species: Cyprinus carpio (Carp) Bioconcentration factor (BCF): < 0.5 Exposure time: 42 d Concentration: 1 mg/l Method: OECD Test Guideline 305C
N N'-Ethylopodi(stoaramido):	
Bioaccumulation	Remarks: Bioaccumulation is unlikely
	Kennarko. Diodoodinalalion io aninkoly.
Partition coefficient: n- : octanol/water	Remarks: Not applicable
Mobility in soil	
Product:	
Distribution among :	Remarks: not tested.
environmental compartments	
Components:	
3-Hydroxy-2-naphthoic acid:	
Distribution among :	adsorption
environmental compartments	Medium: water - soil
	Method: Other
N,N'-Ethylenedi(stearamide):	
Distribution among : environmental compartments	log Koc: 8.6 - 8.91 Method: calculated
environmental comparationed	
Other adverse effects	
Product:	
Results of PBT and vPvB :	Remarks: No information is available as no chemical safety
assessment	report (CSR) is required.
Additional ecological : information	Do not allow to enter ground water, waterways or waste water.
Components:	
3-Hydroxy-2-naphthoic acid:	
Environmental fate and :	Due to the distribution coefficient n-octanol/water,



LQ ABS 001.000% BC31055 RED HIFORMER LC

Page 16

Substance key: 000000781899	Revision Date: 05/02/2019
Version : 1 - 0 / USA	Date of printing :05/02/2019
pathways	accumulation in organisms is not expected.
Results of PBT and vPvB : assessment	The substance is not identified as a PBT or as a vPvB substance.
Additional ecological : information	The product should not be allowed to enter drains, water courses or the soil.
N,N'-Ethylenedi(stearamide):	
Results of PBT and vPvB : assessment	The substance is not identified as a PBT or as a vPvB substance.
SECTION 13. DISPOSAL CONSIDER	RATIONS
Disposal methods	
Waste from residues :	Dispose of this product in accordance with all applicable local, state and federal regulations.
Contaminated packaging :	Regulations concerning reuse or disposal of used packaging materials must be observed.

SECTION 14. TRANSPORT INFORMATION

DOT	not restricted
ΙΑΤΑ	not restricted
IMDG	not restricted

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 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 Water Act

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

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

TSCA	:	On TSCA Inventory, All components are compliant with the
		TSCA Inventory Notification (Active) rule.



LQ ABS 001.000% BC31055 RED HIFORMER LC

Page 17

Substance key: 000000781899	Revision Date: 05/02/2019
Version : 1 - 0 / USA	Date of printing :05/02/2019

TSCA list

TSCA - 5(a) Significant New Use Rule List of Chemicals: No substances are subject to a Significant New Use Rule.

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D): No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16. OTHER INFORMATION

Further information

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
OSHA Z-3	:	USA. Occupational Exposure Limits (OSHA) - Table Z-3
		Mineral Dusts
ACGIH / TWA	:	8-hour, time-weighted average
OSHA Z-3 / TWA	:	8-hour time weighted average

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

CLARIANT

LQ ABS 001.000% BC31055 RED HIFORMER LC

Page 18

Substance key: 000000781899	Revision Date: 05/02/2019
Version : 1 - 0 / USA	Date of printing :05/02/2019

Revision Date

: 05/02/2019

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.

US / EN