

NeXtal Nucleix Suite

Version 2.0 Revision Date 04/02/2020 Print Date 04/02/2020

SECTION 1. IDENTIFICATION

Product name : NeXtal Nucleix Suite

Manufacturer or supplier's details

Company : NeXtal

6201 Trust Dr Holland, OH 43528

USA

Telephone : 419-740-6600

E-mail address : www.calibrescientific.com

Emergency telephone : CHEMTREC

USA & Canada 1-800-424-9300

Outside USA & Canada (703) 527-3887

Chemtrec ID# 696910

Recommended use of the chemical and restrictions on use

Recommended use : Laboratory chemicals

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids : Category 2

Acute toxicity (Oral) : Category 4

Skin irritation : Category 2

Eye irritation : Category 2A

Carcinogenicity : Category 2

Specific target organ

systemic toxicity - single

exposure

: Category 3 (Respiratory system)

Acute aquatic toxicity : Category 3

Chronic aquatic toxicity : Category 3

GHS Label element



NeXtal Nucleix Suite

Version 2.0 Revision Date 04/02/2020 Print Date 04/02/2020

Hazard pictograms







Signal Word : Danger

Hazard Statements : H225 Highly flammable liquid and vapor.

H302 Harmful if swallowed. H315 Causes skin irritation.

H319 Causes serious eye irritation. H335 May cause respiratory irritation. H351 Suspected of causing cancer.

H412 Harmful to aquatic life with long lasting effects.

Precautionary Statements : Prevention:

P210 Keep away from heat/sparks/open flames/hot surfaces.

No smoking.

P280 Wear protective gloves/ protective clothing/ eye protection/

face protection.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Substance name : Semifinished Nucleix

Hazardous ingredients

Chemical Name	CAS-No.	Concentration (% w/w)
hexane-1,6-diol	629-11-8	>= 30 - < 50
PEG	25322-68-3	>= 30 - < 50
2-methylpentane-2,4-diol	107-41-5	>= 20 - < 30
lithium sulfate, monohydrate	10102-25-7	>= 20 - < 30
ethanol	64-17-5	>= 10 - < 20
lithium chloride	7447-41-8	>= 10 - < 20
2-propanol	67-63-0	>= 10 - < 20
1,4-dioxane	123-91-1	>= 10 - < 20
hexane-1,5-diol	928-40-5	>= 1 - < 10
2-methylpropan-2-ol	75-65-0	>= 1 - < 10
Magnesium chloride, hexahydrate	7791-18-6	>= 1 - < 10
calcium acetate hydrate	114460-21-8	>= 1 - < 10
4,9-diazoniadodecamethylenediammonium	306-67-2	>= 1 - < 10
tetrachloride		
Sodium succinate dibasic hexahydrate	6106-21-4	>= 1 - < 10
calcium chloride dihydrate	10035-04-8	>= 1 - < 10
Sodium cacodylate trihydrate	6131-99-3	>= 1 - < 10
4-Morpholineethanesulfonic acid	145224-94-8	>= 1 - < 10
ammonium chloride	12125-02-9	>= 1 - < 10
hexaamminecobalt trichloride	10534-89-1	>= 0.1 - < 1
copper sulfate	7758-98-7	< 0.1



NeXtal Nucleix Suite

Version 2.0 Revision Date 04/02/2020 Print Date 04/02/2020

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.

Show this material safety data sheet to the doctor in

attendance.

If inhaled : Call a physician or poison control center immediately.

If unconscious place in recovery position and seek medical

advice.

In case of skin contact : Wash off immediately with soap and plenty of water while

removing all contaminated clothes and shoes.

If symptoms persist, call a physician.

In case of eye contact : Immediately flush eye(s) with plenty of water.

Remove contact lenses. Protect unharmed eyes.

Rinse thoroughly with plenty of water for at least 15 minutes

and consult a physician.

If swallowed : If accidentally swallowed obtain immediate medical attention.

Rinse mouth with water.

Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and

delayed

: Harmful if swallowed. Causes skin irritation.

Causes serious eye irritation. May cause respiratory irritation.

May cause cancer.

Notes to physician : No information available.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or

carbon dioxide.

Specific hazards during fire

fighting

: Do not allow run-off from firefighting to enter drains or water

courses.

Exposure to decomposition products may be a hazard to health.

Hazardous combustion

products

Nitrogen oxides (NOx)

Sulfur oxides

Carbon monoxide, carbon dioxide and unburned hydrocarbons

(smoke).
Carbon oxides
Metal oxides
potassium oxide
Chlorine compounds
Magnesium oxides



NeXtal Nucleix Suite

Version 2.0 Revision Date 04/02/2020 Print Date 04/02/2020

Hydrogen chloride gas Arsenic compounds

Specific extinguishing

methods

: In the event of fire and/or explosion do not breathe fumes.

Use a water spray to cool fully closed containers.

Special protective equipment

for fire-fighters

: Wear self-contained breathing apparatus for firefighting if

necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.

Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas.

Avoid breathing dust/fumes/gas/mist/vapors/spray. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Environmental precautions

Prevent product from entering drains.

Prevent further leakage or spillage if safe to do so.

Methods and materials for containment and cleaning up

: Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to

local / national regulations (see section 13).

sodium hypochlorite

SECTION 7. HANDLING AND STORAGE

Advice on protection against

fire and explosion

: Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition.

· ·

Advice on safe handling : Avoid formation of aerosol.

Do not breathe vapors/dust.

Avoid exposure - obtain special instructions before use.

Avoid contact with skin and eyes. For personal protection see section 8.

Smoking, eating and drinking should be prohibited in the

application area.

Provide sufficient air exchange and/or exhaust in work rooms. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national

regulations.

Conditions for safe storage

: Keep container tightly closed in a dry and well-ventilated

place.

Materials to avoid

: Do not store together with oxidizing and self-igniting products.



NeXtal Nucleix Suite

Version 2.0 Revision Date 04/02/2020 Print Date 04/02/2020

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Ingredients	CAS-No.	Value type	Control	Basis
		(Form of	parameters /	
		exposure)	Permissible	
			concentration	
hexane-1,6-diol	629-11-8	TWA	10 mg/m3	US WEEL
PEG	25322-68-3	TWA	10 mg/m3	US WEEL
		TWA (aerosol)	10 mg/m3	US WEEL
2-methylpentane-2,4-diol	107-41-5	С	25 ppm	ACGIH
		С	25 ppm 125 mg/m3	NIOSH REL
		С	25 ppm 125 mg/m3	OSHA P0
ethanol	64-17-5	TWA	1,000 ppm 1,900 mg/m3	NIOSH REL
		TWA	1,000 ppm 1,900 mg/m3	OSHA Z-1
		TWA	1,000 ppm 1,900 mg/m3	OSHA P0
		STEL	1,000 ppm	ACGIH
2-propanol	67-63-0	TWA	200 ppm	ACGIH
		STEL	400 ppm	ACGIH
		TWA	400 ppm 980 mg/m3	NIOSH REL
		ST	500 ppm 1,225 mg/m3	NIOSH REL
		TWA	400 ppm 980 mg/m3	OSHA Z-1
		TWA	400 ppm 980 mg/m3	OSHA P0
		STEL	500 ppm 1,225 mg/m3	OSHA P0
1,4-dioxane	123-91-1	TWA	20 ppm	ACGIH
		С	1 ppm 3.6 mg/m3	NIOSH REL
		TWA	100 ppm 360 mg/m3	OSHA Z-1
		TWA	25 ppm 90 mg/m3	OSHA P0
2-methylpropan-2-ol	75-65-0	TWA	100 ppm	ACGIH
		TWA	100 ppm 300 mg/m3	NIOSH REL
		ST	150 ppm 450 mg/m3	NIOSH REL
		TWA	100 ppm 300 mg/m3	OSHA Z-1
		TWA	100 ppm 300 mg/m3	OSHA P0
_		STEL	150 ppm 450 mg/m3	OSHA P0



NeXtal Nucleix Suite

Version 2.0 Revision Date 04/02/2020 Print Date 04/02/2020

ammonium chloride	12125-02-9	TWA	10 mg/m3	ACGIH
		STEL	20 mg/m3	ACGIH
		TWA	10 mg/m3	NIOSH REL
		(Fumes)		
		ST (Fumes)	20 mg/m3	NIOSH REL
		TWA	10 mg/m3	OSHA P0
		STEL	20 mg/m3	OSHA P0
		TWA	10 mg/m3	ACGIH
		(Fumes)		
		STEL	20 mg/m3	ACGIH
		(Fumes)		
		TWA	10 mg/m3	NIOSH REL
		(Fumes)		
		ST (Fumes)	20 mg/m3	NIOSH REL
copper sulfate	7758-98-7	TWA (dust	1 mg/m3	NIOSH REL
		and mists)	(Copper)	
		TWA	1 mg/m3	NIOSH REL
			(Copper)	

Hazardous components without workplace control parameters

Ingredients	CAS-No.
lithium sulfate, monohydrate	10102-25-7
lithium chloride	7447-41-8
hexane-1,5-diol	928-40-5
Magnesium chloride,	7791-18-6
hexahydrate	
calcium acetate hydrate	114460-21-8
4,9-	306-67-2
diazoniadodecamethylenediam	
monium tetrachloride	
Sodium succinate dibasic	6106-21-4
hexahydrate	
calcium chloride dihydrate	10035-04-8
Sodium cacodylate trihydrate	6131-99-3
4-Morpholineethanesulfonic	145224-94-8
acid	
hexaamminecobalt trichloride	10534-89-1

Biological occupational exposure limits

Ingredients	CAS-No.	Control parameters	Biological specimen	Samplin g time	Permissible concentratio n	Basis
	67-63-0	Acetone	Urine	End of shift at end of workweek	40 mg/l	ACGIH BEI

Personal protective equipment

Respiratory protection : In the case of vapor formation use a respirator with an

approved filter.

Hand protection

Material : Protective gloves



NeXtal Nucleix Suite

Version 2.0 Revision Date 04/02/2020 Print Date 04/02/2020

Remarks : The choice of an appropriate glove does not only depend on

its material but also on other quality features and is different from one producer to the other. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions

(machanical strain, duration of contact)

(mechanical strain, duration of contact).

Eye protection : Tightly fitting safety goggles

Wear face-shield and protective suit for abnormal processing

problems.

Do not wear contact lenses.

Ensure that eyewash stations and safety showers are close

to the workstation location.

Skin and body protection : Choose body protection according to the amount and

concentration of the dangerous substance at the workplace.

Footwear protecting against chemicals Workers should wear antistatic footwear.

Hygiene measures : Keep away from food and drink.

Wash hands before breaks and at the end of workday. Ensure adequate ventilation, especially in confined areas.

Keep working clothes separately.

Avoid contact with the skin and the eyes. When using do not eat, drink or smoke.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Color : No data available

Odor : No data available

Odor Threshold : No data available

pH : No data available

Melting point/range : No data available

Boiling point/boiling range : No data available

Flash point : No data available

Evaporation rate : No data available

Burning rate : No data available

Upper explosion limit : No data available

Lower explosion limit : No data available

Vapor pressure : No data available



NeXtal Nucleix Suite

Version 2.0 Revision Date 04/02/2020 Print Date 04/02/2020

Relative vapor density : No data available

Relative density : No data available

Density : No data available

Solubility(ies)

Water solubility : No data available

Solubility in other solvents : No data available

Partition coefficient: n-

octanol/water

: No data available

Autoignition temperature : No data available

Decomposition temperature : No data available

Viscosity

Viscosity, dynamic : No data available

Viscosity, kinematic : No data available

Explosive properties : No data available

Oxidizing properties : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No decomposition if stored and applied as directed.

Chemical stability : No decomposition if stored and applied as directed.

Possibility of hazardous

reactions

: Stable under recommended storage conditions.

Hazardous decomposition products formed under fire

conditions.

Vapors may form explosive mixture with air.

Keep away from oxidizing agents, and acidic or alkaline

products.

Conditions to avoid : Heat, flames and sparks.

Incompatible materials : No data available

Hazardous decomposition

products

: No decomposition if stored and applied as directed.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Harmful if swallowed.

Product:

Acute oral toxicity : No data available



NeXtal Nucleix Suite

Version 2.0 Revision Date 04/02/2020 Print Date 04/02/2020

Acute toxicity estimate: 921.68 mg/kg

Method: Calculation method

Acute inhalation toxicity : No data available

Acute toxicity estimate: > 40 mg/l

Exposure time: 4 h
Test atmosphere: vapor
Method: Calculation method

Acute dermal toxicity : No data available

Acute toxicity estimate: > 5,000 mg/kg

Method: Calculation method

Ingredients:

hexane-1,6-diol:

Acute oral toxicity : LD50 Oral (Rat): > 3,000 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): > 2,500 mg/kg

PEG:

Acute inhalation toxicity : No data available

Acute dermal toxicity : No data available

2-methylpentane-2,4-diol:

Acute oral toxicity : LD50 Oral (Rat): 3,700 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): 7,892 mg/kg

lithium sulfate, monohydrate:

Acute oral toxicity : LD50 Oral (Rat): 613 mg/kg

ethanol:

Acute oral toxicity : LD50 Oral (Rat): 10,470 mg/kg

Acute inhalation toxicity : LC50 (Rat): 20000 ppm

Exposure time: 10 h

lithium chloride:

Acute oral toxicity : LD50 Oral (Rat): 526 mg/kg

2-propanol:

Acute oral toxicity : LD50 Oral (Rat): 5,045 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): 12,800 mg/kg

1,4-dioxane:

Acute oral toxicity : LD50 Oral (Rat): 4,200 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): 7,858 mg/kg

hexane-1,5-diol:

Acute oral toxicity : LD50 Oral (Rat): > 20,000 mg/kg



NeXtal Nucleix Suite

Version 2.0 Revision Date 04/02/2020 Print Date 04/02/2020

2-methylpropan-2-ol:

Acute oral toxicity : LD50 Oral (Rat): 2,743 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): > 2,000 mg/kg

Magnesium chloride, hexahydrate:

Acute oral toxicity : LD50 Oral (Rat): 8,100 mg/kg

calcium acetate hydrate:

Acute oral toxicity : LD50 Oral (Rat): 4,280 mg/kg

ammonium chloride:

Acute oral toxicity : LD50 Oral (Rat): 1,650 mg/kg

copper sulfate:

Acute oral toxicity : LD50 Oral (Rat): 482 mg/kg

Skin corrosion/irritation

Causes skin irritation.

Product:

Remarks:

May irritate skin.

Ingredients:

2-propanol:

Species: Rabbit

Result: Mild skin irritation

Serious eye damage/eye irritation

Causes serious eye irritation.

Product:

Remarks:

May cause irreversible eye damage.

Ingredients:

ethanol:

Result: Eye irritation

2-propanol:

Species: Rabbit Result: Eye irritation Exposure time: 24 h

Respiratory or skin sensitization

Skin sensitization: Not classified based on available information. Respiratory sensitization: Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

May cause cancer.



NeXtal Nucleix Suite

Version 2.0 Revision Date 04/02/2020 Print Date 04/02/2020

IARC Group 2B: Possibly carcinogenic to humans

1,4-dioxane 123-91-1

hexaamminecobalt trichloride 10534-89-1

OSHANo ingredient of this product present at levels greater than or

equal to 0.1% is identified as a carcinogen or potential

carcinogen by OSHA.

NTP Reasonably anticipated to be a human carcinogen

1,4-dioxane 123-91-1

Reproductive toxicity

Not classified based on available information.

STOT-single exposure

May cause respiratory irritation.

Ingredients:

2-propanol:

Assessment: May cause drowsiness or dizziness.

STOT-repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

Further information

Product:

Remarks:

Solvents may degrease the skin.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish : No data available

Toxicity to algae : No data available

Toxicity to bacteria : No data available

: LC50 (Leuciscus idus (Golden orfe)): 4,640 mg/l

Ingredients:

hexane-1,6-diol:

Toxicity to fish

Exposure time: 96 h

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia magna (Water flea)): > 500 mg/l

Exposure time: 48 h



NeXtal Nucleix Suite

Version 2.0 Revision Date 04/02/2020 Print Date 04/02/2020

Test Type: Immobilization

Toxicity to algae : EC50 (Scenedesmus capricornutum (fresh water algae)):

5,940 mg/l

Exposure time: 72 h

Test Type: Growth inhibition

Toxicity to bacteria : IC50 (Pseudomonas putida): > 10,000 mg/l

Exposure time: 17 h

Test Type: Growth inhibition

PEG:

Toxicity to fish (Leuciscus idus (Golden orfe)): > 500 mg/l

> Exposure time: 96 h Test Type: static test

2-methylpentane-2,4-diol:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 10,700 mg/l

Exposure time: 96 h

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia magna (Water flea)): 3,200 mg/l

Exposure time: 48 h

lithium chloride:

Toxicity to fish : LC50: 17 ma/l

Exposure time: 96 h

2-propanol:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 9,640 mg/l

Exposure time: 96 h

Toxicity to algae : EC50 (Desmodesmus subspicatus (Scenedesmus

> subspicatus)): 2,000 mg/l Exposure time: 72 h

1,4-dioxane:

: LC50 (Pimephales promelas (fathead minnow)): 985 mg/l Toxicity to fish

Exposure time: 96 h

Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): > 500 mg/l

Exposure time: 72 h

2-methylpropan-2-ol:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 6,140 mg/l

Exposure time: 96 h

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia magna (Water flea)): 933 mg/l

Exposure time: 48 h

Sodium cacodylate trihydrate:

aquatic invertebrates

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 53.5 mg/l

Exposure time: 48 h

ammonium chloride:

Toxicity to fish : LC50 (Cyprinus carpio (Carp)): 209 mg/l

Exposure time: 96 h



NeXtal Nucleix Suite

Version 2.0 Revision Date 04/02/2020 Print Date 04/02/2020

Toxicity to daphnia and other

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 161 mg/l

Exposure time: 48 h

copper sulfate:

Toxicity to fish : LC50 (Fish): 2.5 mg/l

Exposure time: 96 h

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia magna (Water flea)): 0.024 mg/l

Exposure time: 48 h Test Type: Immobilization

Persistence and degradability

No data available

Bioaccumulative potential

Product:

Bioaccumulation : No data available

Mobility in soil

No data available

Other adverse effects

Product:

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82

Protection of Stratospheric Ozone - CAA Section 602 Class I

Substances

Remarks: 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 +

В).

Additional ecological

information

: An environmental hazard cannot be excluded in the event of

unprofessional handling or disposal.

Harmful to aquatic life with long lasting effects.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : The product should not be allowed to enter drains, water

courses or the soil.

Send to a licensed waste management company.

Dispose of as hazardous waste in compliance with local and

national regulations.

Contaminated packaging : Dispose of as unused product.

Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION



NeXtal Nucleix Suite

Version 2.0 Revision Date 04/02/2020 Print Date 04/02/2020

IATA-DGR

UN/ID No. : UN 1993

Proper shipping name : Flammable liquid, n.o.s.

(ethanol, ISOPROPANOL)

Class : 3 Packing group : II

Labels : Flammable Liquids

IMDG-Code

UN number : UN 1993

Proper shipping name : FLAMMABLE LIQUID, N.O.S.

(ethanol, ISOPROPANOL)

Class : 3
Packing group : II
Labels : 3
EmS Code : F-E, S-E
Marine pollutant : no

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

UN/ID/NA number : UN 1993

Proper shipping name : FLAMMABLE LIQUIDS, N.O.S.

(ethanol, ISOPROPANOL)

Class : 3 Packing group : II

Labels : Class 3 - Flammable Liquid

ERG Code : 128 Marine pollutant : no

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know

SARA 304 Extremely Hazardous Substances Reportable Quantity

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

SARA 311/312 Hazards : Fire Hazard

Acute Health Hazard Chronic Health Hazard

SARA 302 : No chemicals in this material are subject to the reporting

requirements of SARA Title III, Section 302.

SARA 313 : The following components are subject to reporting levels

established by SARA Title III, Section 313:

1.4-dioxane 123-91-1



NeXtal Nucleix Suite

Version 2.0 Revision Date 04/02/2020 Print Date 04/02/2020

2-methylpropan-2-ol 75-65-0

US State Regulations

California Prop. 65 WARNING! This product contains a chemical known in the

State of California to cause cancer.

ethanol 64-17-5 1,4-dioxane 123-91-1

WARNING: This product contains a chemical known in the State of California to cause birth defects or other reproductive

harm.

ethanol 64-17-5

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

(Q)SAR - (Quantitative) Structure Activity Relationship: ASTM - American Society for the Testing of Materials; bw - Body weight; DIN - Standard of the German Institute for Standardisation; ECx -Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized 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: IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISO - International Organisation for Standardization; 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; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative; DSL -Domestic Substances List (Canada); KECI - Korea Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); AICS - Australian Inventory of Chemical Substances; IECSC - Inventory of Existing Chemical Substances in China; ENCS - Existing and New Chemical Substances (Japan); ISHL - Industrial Safety and Health Law (Japan); PICCS - Philippines Inventory of Chemicals and Chemical Substances; NZIoC - New Zealand Inventory of Chemicals; TCSI - Taiwan Chemical Substance Inventory; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; DOT - Department of Transportation; EHS Extremely Hazardous Substance; HMIS - Hazardous Materials Identification System; MSHA -Mine Safety and Health Administration; NFPA - National Fire Protection Association; RCRA -Resource Conservation and Recovery Act; RQ - Reportable Quantity; SARA - Superfund Amendments and Reauthorization Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; GLP - Good Laboratory Practice; ERG - Emergency Response Guide; NTP - National Toxicology Program: UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods



NeXtal Nucleix Suite

Version 2.0 Revision Date 04/02/2020 Print Date 04/02/2020

Revision Date : 04/02/2020

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.