

SAFETY DATA SHEET

VIRKON™ S



Version	Revision Date:	SDS Number:	Date of last issue: 09/30/2020
2.0	07/31/2024	203000008863	Country / Language: US / EN

SECTION 1. IDENTIFICATION

Product name : VIRKON™ S

Product code : 000000000057804863

EPA registration number : 39967-137

Manufacturer or supplier's details

Company : LANXESS Corporation
Product Safety & Regulatory Affairs
111 RIDC Park West Drive
Pittsburgh, Pennsylvania 15275-1112

Responsible Department : (800) LANXESS
(412) 809-1000
lanxesshes@lanxess.com

Emergency telephone : CHEMTREC (800) 424-9300 or
(703) 527-3887 (Outside U.S.A) and mention CCN12916.
Lanxess Emergency Phone (866) 673 6350.

Recommended use of the chemical and restrictions on use

Recommended use : Disinfectants
Cleaning agent


SECTION 2. HAZARDS IDENTIFICATION

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

Skin irritation : Category 2

Serious eye damage : Category 1

GHS label elements

Hazard pictograms : 

Signal Word : Danger

Hazard Statements : Causes skin irritation.

SAFETY DATA SHEET

VIRKON™ S



Version 2.0 Revision Date: 07/31/2024 SDS Number: 203000008863 Date of last issue: 09/30/2020
Country / Language: US / EN

Causes serious eye damage.

Precautionary Statements

Prevention:

Wash skin thoroughly after handling.
Wear protective gloves/ eye protection/ face protection.

Response:

IF ON SKIN: Wash with plenty of soap and water.
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.
If skin irritation occurs: Get medical advice/ attention.
Take off contaminated clothing and wash before reuse.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
pentapotassium bis(peroxymonosulphate) bis(sulphate)	70693-62-8	≥ 30 - < 50
Butanedioic acid, 2-hydroxy-sulphamidic acid	6915-15-7	≥ 20 - < 30
sodium dodecylbenzenesulfonate	5329-14-6	≥ 5 - < 10
potassium hydrogensulphate (Impurity)	25155-30-0	≥ 1 - < 5
dipotassium peroxodisulphate (Impurity)	7646-93-7	≥ 1 - < 5
	7727-21-1	≥ 1 - < 5

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

SECTION 4. FIRST AID MEASURES

If inhaled : If inhaled, remove to fresh air.
Get medical attention if symptoms occur.

In case of skin contact : Wash off with soap and water.
Remove contaminated clothing and shoes.
Continue to rinse for at least 20 minutes.
Get medical attention if symptoms occur.

SAFETY DATA SHEET

VIRKON™ S



Version	Revision Date:	SDS Number:	Date of last issue: 09/30/2020
2.0	07/31/2024	203000008863	Country / Language: US / EN

Wash contaminated clothing before reuse.

In case of eye contact : Get medical attention immediately.
In case of contact, flush eyes with plenty of water for at least 30 minutes. Use fingers to ensure that eyelids are separated and that the eye is being irrigated.
Remove contact lenses, if present and easy to do. Continue rinsing.
Chemical burns must be treated promptly by a physician.

If swallowed : Rinse mouth with water.
Do not induce vomiting unless directed to do by medical personnel.
Get medical attention if symptoms occur.

Most important symptoms and effects, both acute and delayed

Symptoms : Eye: Corrosive with symptoms of reddening, tearing, swelling, burning and possible permanent damage.
Skin: Causes irritation with symptoms of reddening, itching, and swelling.

Effects : Causes skin irritation.
Causes serious eye damage.

Notes to physician : Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
In case of fire, use water spray (fog), foam or dry chemical.

Unsuitable extinguishing media : Do not use water jet.
Carbon dioxide (CO₂)

Specific hazards during fire fighting : Toxic and irritating gases/fumes may be given off during burning or thermal decomposition.
Water runoff from fire fighting may be corrosive.

Hazardous combustion products : Carbon dioxide (CO₂)
Carbon monoxide
Sulfur oxides
Metal oxides
Nitrogen oxides (NO_x)
Halogenated compounds
Phosphorus oxides

Further information : Promptly isolate the scene by removing all persons from the

SAFETY DATA SHEET

VIRKON™ S



Version	Revision Date:	SDS Number:	Date of last issue: 09/30/2020
2.0	07/31/2024	203000008863	Country / Language: US / EN

vicinity of the incident if there is a fire.
No action shall be taken involving any personal risk or without suitable training.

Special protective equipment : Wear self-contained breathing apparatus for firefighting if necessary for fire-fighters

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : No action shall be taken involving any personal risk or without suitable training.
Put on appropriate personal protection equipment.
Do not touch or walk through spilled material.
Evacuate unnecessary personnel.
Keep unnecessary and unprotected personnel from entering.
Provide adequate ventilation.

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up : Move containers from spill area.
Vacuum or sweep up material and place in a designated, labeled waste container.
Dispose of wastes in an approved waste disposal facility.
Do not allow spilled material or wash water to enter sewers, surface waters, or groundwater systems.
Keep people away from and upwind of spill/leak.
Avoid dust formation.
Contaminated absorbent material may pose the same hazard as the spilled product.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : Avoid dust formation.
Provide appropriate exhaust ventilation at places where dust is formed.

Advice on safe handling : Remove contaminated clothing and protective equipment before entering eating areas.
Workers should wash hands and face before eating, drinking and smoking.
Put on appropriate personal protection equipment.
Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.

SAFETY DATA SHEET

VIRKON™ S



Version	Revision Date:	SDS Number:	Date of last issue: 09/30/2020
2.0	07/31/2024	203000008863	Country / Language: US / EN

Avoid inhalation, ingestion and contact with skin and eyes.
Use only with adequate ventilation.

Conditions for safe storage : Store in accordance with local regulations.
Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink.
Keep containers sealed until ready for use.
Containers that have been opened must be carefully resealed and kept upright to prevent leakage.
Do not store in unlabeled containers.
Use appropriate container to avoid environmental contamination.
Empty containers retain residue and can be dangerous.
Do not reuse container.

Further information on storage stability : No decomposition if stored and applied as directed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
dipotassium peroxodisulphate	7727-21-1	TWA	0.1 mg/m3 (Persulphate)	ACGIH

Engineering measures : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Personal protective equipment

Respiratory protection : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
NIOSH approved, air-purifying organic vapor respirator.

Hand protection
Material : Butyl rubber - IIR
Wearing time : < 60 min

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves. After contamination with product change the gloves immediately and dispose of them according to relevant national and local regulations
Permeation resistant gloves.

SAFETY DATA SHEET

VIRKON™ S



Version	Revision Date:	SDS Number:	Date of last issue: 09/30/2020
2.0	07/31/2024	203000008863	Country / Language: US / EN

Eye protection	:	Tightly fitting safety goggles Safety glasses with side-shields
Skin and body protection	:	Wear suitable protective clothing. Choose body protection according to the amount and concentration of the dangerous substance at the work place. Wear work clothing including long pants and long-sleeve shirts.
Hygiene measures	:	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	tablet
Physical state	:	solid
Color	:	yellow
Odor	:	odorless
Odor Threshold	:	No data available
pH	:	2.5 - 3 Concentration: 10 %
Melting point/range	:	No data available
Boiling point/boiling range	:	No data available
Flash point	:	No data available
Evaporation rate	:	No data available
Self-ignition	:	No data available
Burning number	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available

SAFETY DATA SHEET

VIRKON™ S



Version	Revision Date:	SDS Number:	Date of last issue: 09/30/2020
2.0	07/31/2024	203000008863	Country / Language: US / EN

Lower explosion limit / Lower flammability limit	:	No data available
Vapor pressure	:	< 0.0001 hPa (68 °F / 20 °C)
Relative density	:	No data available
Density	:	1.35 g/cm ³ (68 °F / 20 °C)
Solubility(ies)		
Water solubility	:	65 g/l
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	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 specific test data related to reactivity available for this product or its ingredients.
Chemical stability	:	The product is chemically stable.
Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	:	Exposure to moisture.
Incompatible materials	:	Incompatible with strong bases and oxidizing agents. Incompatible with acids. Halogenated compounds Combustible substances brass Copper Cyanides Metal salt.

SAFETY DATA SHEET

VIRKON™ S



Version	Revision Date:	SDS Number:	Date of last issue: 09/30/2020
2.0	07/31/2024	203000008863	Country / Language: US / EN

Hazardous decomposition products : Chlorine
Sulfur oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity	: LD50 (Rat, male and female): 4,123 mg/kg Method: OECD Test Guideline 401 GLP: Yes
Acute inhalation toxicity	: LC0 (Rat, male and female): > 3.7 mg/l Exposure time: 4 h Test atmosphere: dust/mist Assessment: The substance or mixture has no acute inhalation toxicity Remarks: the particle size measurements of the product indicate that it is not respirable and therefore not bioavailable by the inhalation route.
Acute dermal toxicity	: LD50 (Rat, male and female): 2,200 mg/kg Remarks: Extrapolation according to Regulation (EC) No. 440/2008

Components:

pentapotassium bis(peroxymonosulphate) bis(sulphate):

Acute oral toxicity	: LD50 (Rat, male and female): 500 mg/kg Method: OECD Test Guideline 423
Acute inhalation toxicity	: LC0 (Rat, male): > 5 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 Assessment: The substance or mixture has no acute inhalation toxicity Remarks: Highest producible concentration.
Acute dermal toxicity	: LD50 (Rat, male and female): > 5,000 mg/kg Method: OECD Test Guideline 402 Remarks: Extrapolation according to Regulation (EC) No. 440/2008

SAFETY DATA SHEET

VIRKON™ S



Version	Revision Date:	SDS Number:	Date of last issue: 09/30/2020
2.0	07/31/2024	203000008863	Country / Language: US / EN

Butanedioic acid, 2-hydroxy-:

Acute oral toxicity : LD50 (Rat, male and female): 3,500 mg/kg
Method: OECD Test Guideline 401
GLP: No

Acute inhalation toxicity : LC0 (Rat, male and female): > 1.306 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Remarks: Highest producible concentration.

Acute dermal toxicity : LD50 (Rabbit, female): > 5,000 mg/kg
Method: OECD Test Guideline 401
GLP: No

sulphamidic acid:

Acute oral toxicity : LD50 (Rat, female): 2,140 mg/kg
Method: OECD Test Guideline 401
GLP: Yes

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg
Method: OECD Test Guideline 402
GLP: Yes
Assessment: The substance or mixture has no acute dermal toxicity

sodium dodecylbenzenesulfonate:

Acute oral toxicity : LD50 (Rat): 438 mg/kg

potassium hydrogensulphate:

Acute oral toxicity : LD50 (Rat): 2,340 mg/kg

dipotassium peroxodisulphate:

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

Acute inhalation toxicity : LC0 (Rat): > 2.95 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Remarks: Highest producible concentration.

Acute dermal toxicity : LD50 (Rabbit): > 10,000 mg/kg

Skin corrosion/irritation

Causes skin irritation.

SAFETY DATA SHEET

VIRKON™ S



Version	Revision Date:	SDS Number:	Date of last issue: 09/30/2020
2.0	07/31/2024	203000008863	Country / Language: US / EN

Product:

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	Irritating to skin.

Components:

pentapotassium bis(peroxymonosulphate) bis(sulphate):

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	Causes burns.

Butanedioic acid, 2-hydroxy-:

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	No skin irritation

sulphamidic acid:

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	Irritating to skin.

sodium dodecylbenzenesulfonate:

Assessment	:	Irritating to skin.
------------	---	---------------------

potassium hydrogensulphate:

Assessment	:	Causes burns.
------------	---	---------------

dipotassium peroxodisulphate:

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	Irritating to skin.

Serious eye damage/eye irritation

Causes serious eye damage.

Product:

Species	:	Rabbit
Result	:	Risk of serious damage to eyes.

Components:

pentapotassium bis(peroxymonosulphate) bis(sulphate):

Species	:	Rabbit
---------	---	--------

SAFETY DATA SHEET

VIRKON™ S



Version	Revision Date:	SDS Number:	Date of last issue: 09/30/2020
2.0	07/31/2024	203000008863	Country / Language: US / EN

Result : Risk of serious damage to eyes.
Method : OECD Test Guideline 405

Butanedioic acid, 2-hydroxy-:

Species : Rabbit
Result : Irritating to eyes.
Method : OECD Test Guideline 405

sulphamidic acid:

Species : Rabbit
Result : Irritating to eyes.
Method : OECD Test Guideline 405

sodium dodecylbenzenesulfonate:

Assessment : Risk of serious damage to eyes.

dipotassium peroxodisulphate:

Result : Irritating to eyes.

Respiratory or skin sensitization

Skin sensitization

Not classified based on available information.

Respiratory sensitization

Not classified based on available information.

Product:

Routes of exposure : Skin contact
Species : Guinea pig
Method : OECD Test Guideline 406
Result : Did not cause sensitization on laboratory animals.

Routes of exposure : Inhalation
Species : Mammal - species unspecified
Method : Expert judgment
Result : Does not cause respiratory sensitization.

Components:

pentapotassium bis(peroxymonosulphate) bis(sulphate):

Routes of exposure : Skin contact
Species : Guinea pig
Method : OECD Test Guideline 406
Result : Does not cause skin sensitization.

SAFETY DATA SHEET

VIRKON™ S



Version	Revision Date:	SDS Number:	Date of last issue: 09/30/2020
2.0	07/31/2024	203000008863	Country / Language: US / EN

Butanedioic acid, 2-hydroxy-:

Routes of exposure	:	Skin contact
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	Did not cause sensitization on laboratory animals.
GLP	:	Yes

sulphamidic acid:

Result	:	Did not cause sensitization on laboratory animals.
--------	---	--

dipotassium peroxodisulphate:

Routes of exposure	:	Inhalation
Species	:	Mammal - species unspecified
Result	:	May cause sensitization by inhalation.

Routes of exposure	:	Skin contact
Species	:	Mouse
Method	:	OECD Test Guideline 429
Result	:	May cause sensitization by skin contact.

Germ cell mutagenicity

Not classified based on available information.

Components:

pentapotassium bis(peroxymonosulphate) bis(sulphate):

Genotoxicity in vitro	:	Test system: Mammalian-Animal Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: positive GLP: Yes
-----------------------	---	---

	:	Test system: Bacteria Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative GLP: Yes
--	---	---

	:	Test system: Mammalian-Human Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473 Result: positive GLP: Yes
--	---	--

Genotoxicity in vivo	:	Species: Mammalian-Animal Application Route: Oral Method: OECD Test Guideline 474
----------------------	---	---

SAFETY DATA SHEET

VIRKON™ S



Version	Revision Date:	SDS Number:	Date of last issue: 09/30/2020
2.0	07/31/2024	203000008863	Country / Language: US / EN

Result: negative

Butanedioic acid, 2-hydroxy-:

Genotoxicity in vitro : Remarks: Not mutagenic in a standard battery of genetic toxicological tests.

sulphamidic acid:

Genotoxicity in vitro : Test system: Mammalian-Human
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 487
Result: negative
GLP: Yes

Test system: Mammalian-Animal
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative

Test system: Bacteria
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative

dipotassium peroxodisulphate:

Genotoxicity in vitro : Remarks: Not mutagenic in a standard battery of genetic toxicological tests.

Carcinogenicity

Not classified based on available information.

IARC No ingredient 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 ingredient 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

Not classified based on available information.

Components:

pentapotassium bis(peroxymonosulphate) bis(sulphate):

Effects on fetal development : Remarks: No teratogenic or fetotoxic effects were found at all dose levels tested.

SAFETY DATA SHEET

VIRKON™ S



Version	Revision Date:	SDS Number:	Date of last issue: 09/30/2020
2.0	07/31/2024	203000008863	Country / Language: US / EN

Butanedioic acid, 2-hydroxy-:

Effects on fetal development : Remarks: No known significant effects or critical hazards.

STOT-single exposure

Not classified based on available information.

Components:

potassium hydrogensulphate:

Assessment : May cause respiratory irritation.

dipotassium peroxodisulphate:

Assessment : May cause respiratory irritation.

STOT-repeated exposure

Not classified based on available information.

Repeated dose toxicity

Components:

pentapotassium bis(peroxymonosulphate) bis(sulphate):

Species : Rat, male and female
LOAEL : > 1,000 mg/kg
Application Route : Oral
Exposure time : 28 d
Number of exposures : 7 days/week
Method : OECD Test Guideline 407
Remarks : Subacute toxicity

Species : Rat, male and female
LOAEL : 600 mg/kg
Application Route : Oral
Exposure time : 90 d
Number of exposures : 7 days/week
Method : OECD Test Guideline 408
Remarks : Subchronic toxicity

Butanedioic acid, 2-hydroxy-:

Remarks : No known significant effects or critical hazards.

sodium dodecylbenzenesulfonate:

Species : Rat
NOAEL : 220 mg/kg
Application Route : Oral

SAFETY DATA SHEET

VIRKON™ S



Version	Revision Date:	SDS Number:	Date of last issue: 09/30/2020
2.0	07/31/2024	203000008863	Country / Language: US / EN

Dose : 220 mg/kg
Remarks : Chronic toxicity

Aspiration toxicity

Not classified based on available information.

Further information

Product:

Remarks : No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

pentapotassium bis(peroxymonosulphate) bis(sulphate):

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 53 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203
GLP: Yes
Remarks: Fresh water

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 3.5 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
GLP: Yes
Remarks: Fresh water

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (microalgae)): > 1 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
GLP: Yes
Remarks: Fresh water

NOEC (Pseudokirchneriella subcapitata (microalgae)): 0.5 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
GLP: Yes
Remarks: Fresh water

Butanedioic acid, 2-hydroxy-:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 100 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

SAFETY DATA SHEET

VIRKON™ S



Version	Revision Date:	SDS Number:	Date of last issue: 09/30/2020
2.0	07/31/2024	203000008863	Country / Language: US / EN

GLP: Yes
Remarks: Fresh water

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 240 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
GLP: Yes
Remarks: Fresh water

Toxicity to algae/aquatic plants : EC50 (algae): > 100 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
GLP: Yes
Remarks: Fresh water

NOEC (algae): 100 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
GLP: Yes
Remarks: Fresh water

sulphamidic acid:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 70.3 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203
GLP: No
Remarks: Fresh water

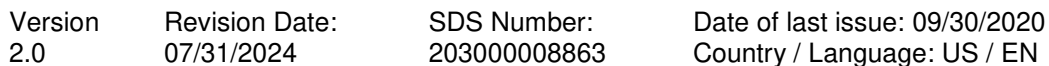
Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 71.6 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
GLP: Yes
Remarks: Fresh water

Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): 48 mg/l
End point: Growth rate
Exposure time: 72 h
Method: OECD Test Guideline 201
GLP: Yes
Remarks: Fresh water

NOEC (Desmodesmus subspicatus (green algae)): 18 mg/l
End point: Growth rate
Exposure time: 72 h
Method: OECD Test Guideline 201
GLP: Yes
Remarks: Fresh water

Toxicity to fish (Chronic tox- : NOEC (Danio rerio (zebra fish)): >= 60 mg/l

VIRKON™ S



Butanedioic acid, 2-hydroxy-:

SAFETY DATA SHEET

VIRKON™ S



Version	Revision Date:	SDS Number:	Date of last issue: 09/30/2020
2.0	07/31/2024	203000008863	Country / Language: US / EN

Biodegradability : aerobic
Result: Readily biodegradable.
Biodegradation: 67.5 %
Exposure time: 28 d
Method: OECD Test Guideline 301B
GLP: Yes

sulphamidic acid:

Biodegradability : Result: The methods for determining the biological degradability are not applicable to inorganic substances.

dipotassium peroxodisulphate:

Biodegradability : Result: The methods for determining the biological degradability are not applicable to inorganic substances.

Bioaccumulative potential

Components:

pentapotassium bis(peroxymonosulphate) bis(sulphate):

Partition coefficient: n-octanol/water : log Pow: < 0.3
Method: OECD Test Guideline 117

Butanedioic acid, 2-hydroxy-:

Partition coefficient: n-octanol/water : log Pow: -1.26

sulphamidic acid:

Partition coefficient: n-octanol/water : log Pow: -4.34

sodium dodecylbenzenesulfonate:

Bioaccumulation : Bioconcentration factor (BCF): 220

Partition coefficient: n-octanol/water : log Pow: 0.45

Mobility in soil

No data available

Other adverse effects

No data available

SAFETY DATA SHEET

VIRKON™ S



Version	Revision Date:	SDS Number:	Date of last issue: 09/30/2020
2.0	07/31/2024	203000008863	Country / Language: US / EN

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

RCRA - Resource Conservation and Recovery Authorization Act : If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

Waste from residues : The generation of waste should be avoided or minimized wherever possible.
This material and its container must be disposed of in a safe way.
Empty containers retain product residue; observe all precautions for product.
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
Waste disposal should be in accordance with existing federal, state, provincial and/or local environmental controls.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

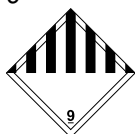
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

49 CFR

UN/ID/NA number	:	UN 3077
Proper shipping name	:	Environmentally hazardous substance, solid, n.o.s. (SODIUM DODECYLBENZENESULFONATE)
Class	:	9
Packing group	:	III
Labels	:	9
	:	



ERG Code : 171

SAFETY DATA SHEET

VIRKON™ S



Version	Revision Date:	SDS Number:	Date of last issue: 09/30/2020
2.0	07/31/2024	203000008863	Country / Language: US / EN

RQ : 21,166.71 lb
Marine pollutant : no

Hazard and Handling Notes.

Risk of serious damage to eyes

Irritating to skin.

Keep dry.

Keep away from foodstuffs, acids and alkalis

When in individual containers of less than the Product RQ, this material ships as non-regulated.

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet.

Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
sodium dodecylbenzenesulfonate	25155-30-0	1000	21166

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 : Skin corrosion or irritation
Serious eye damage or eye irritation

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.

US State Regulations

Massachusetts Right To Know

sodium dodecylbenzenesulfonate	25155-30-0	>= 1 - < 5
--------------------------------	------------	------------

Pennsylvania Right To Know

pentapotassium bis(peroxymonosulphate)	70693-62-8	>= 30 - < 50
bis(sulphate)		
Butanedioic acid, 2-hydroxy-	6915-15-7	>= 20 - < 30
sodium hydrogencarbonate	144-55-8	> 1
sulphamidic acid	5329-14-6	>= 5 - < 10
Polyphosphoric acids, sodium salts	68915-31-1	> 1
sodium dodecylbenzenesulfonate	25155-30-0	>= 1 - < 5
potassium hydrogensulphate	7646-93-7	>= 1 - < 5
dipotassium peroxodisulphate	7727-21-1	>= 1 - < 5

SAFETY DATA SHEET

VIRKON™ S



Version	Revision Date:	SDS Number:	Date of last issue: 09/30/2020
2.0	07/31/2024	203000008863	Country / Language: US / EN

sodium sulphate

7757-82-6

< 0.1

California Prop. 65

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

TSCA inventory

TSCA : This product is regulated under the United States Federal Insecticide, Fungicide and Rodenticide Act (FIFRA).

TSCA list

No substances are subject to a Significant New Use Rule.

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

FIFRA information

EPA registration number : 39967-137

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Signal Word : DANGER

Hazard Statements : Powder is corrosive. Causes irreversible eye damage and skin burns. Harmful if swallowed or absorbed through skin. Corrosive statement does not refer to 1% in-use solution. FIFRA Registered Composition:
Active Ingredients:
Potassium peroxymonosulfate (CAS# 10058-23-8) 21.41%
Sodium chloride (CAS# 7647-14-5) 1.5%
Other Ingredients 77.09%
Total: 100%"

SECTION 16. OTHER INFORMATION

Further information

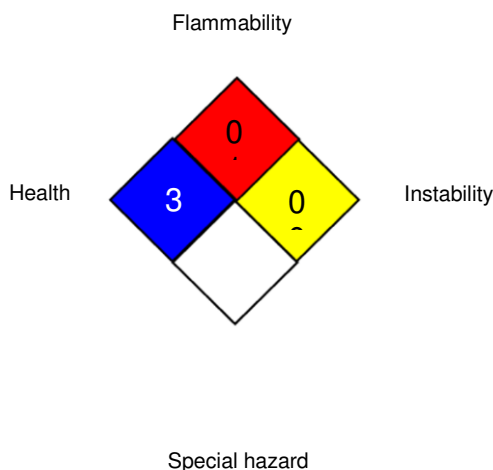
SAFETY DATA SHEET

VIRKON™ S



Version	Revision Date:	SDS Number:	Date of last issue: 09/30/2020
2.0	07/31/2024	203000008863	Country / Language: US / EN

NFPA 704:



HMIS® IV:

HEALTH	/	3
FLAMMABILITY		0
PHYSICAL HAZARD		0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
ACGIH / TWA : 8-hour, time-weighted average

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

SAFETY DATA SHEET

VIRKON™ S



Version	Revision Date:	SDS Number:	Date of last issue: 09/30/2020
2.0	07/31/2024	203000008863	Country / Language: US / EN

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; 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

Revision Date : 07/31/2024

The data contained in this Safety Data Sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. 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 to be a guidance for processing and does not contain any 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. It is the responsibility of the recipient of the product to ensure that any proprietary rights and existing laws and legislation are observed.

Relevant changes from the previous version are marked on the left side of the Safety Data Sheet with a black double bar in appropriate places.