

SAFETY DATA SHEET

Rely+On Virkon



Version	Revision Date:	SDS Number:	Date of previous issue: 02/19/2020
1.1	03/02/2020	103000027021	Country / Language: US / EN

SECTION 1. IDENTIFICATION

Product name : Rely+On Virkon

Material number : 58125204

EPA Registration Number : 39967-138

Recommended use : Disinfectants
Cleaning agent

Manufacturer or supplier's details

Supplier : LANXESS Corporation
Product Safety & Regulatory Affairs
111 RIDC Park West Drive
PittsburghPA 15275-1112
USA

Telephone : +1800LANXESS
+14128091000 (international)

Emergency telephone : CHEMTREC (800) 424 9300
International (703) 527 3887
Lanxess Emergency Phone (800) 410-3063

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.
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.

SAFETY DATA SHEET

Rely+On Virkon



Version 1.1 Revision Date: 03/02/2020 SDS Number: 103000027021 Date of previous issue: 02/19/2020
Country / Language: US / EN

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.

Hazard Not Otherwise Classified (HNOC)

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous ingredients

Chemical name	CAS-No.	Concentration (% w/w)
pentapotassium bis(peroxymonosulphate) bis(sulphate)	70693-62-8	$\geq 50 - < 70$
sodium dodecylbenzenesulfonate	25155-30-0	$\geq 10 - < 20$
malic acid	6915-15-7	$\geq 5 - < 10$
sulphamic acid	5329-14-6	$\geq 1 - < 5$
potassium hydrogen sulphate	7646-93-7	$\geq 1 - < 5$
Dipotassium peroxodisulphate	7727-21-1	$\geq 1 - < 5$
dipentene	138-86-3	$\geq 0.1 - < 1$

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

SAFETY DATA SHEET

Rely+On Virkon



Version 1.1	Revision Date: 03/02/2020	SDS Number: 103000027021	Date of previous issue: 02/19/2020 Country / Language: US / EN
----------------	------------------------------	-----------------------------	---

Symptoms	: Eye: Causes irritation with symptoms of reddening, tearing, stinging, and swelling. 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 (CO ₂)
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	: Sulfur oxides Metal oxides Carbon dioxide (CO ₂) Carbon monoxide Nitrogen oxides (NO _x) Halogenated compounds Phosphorus oxides
Further information	: Promptly isolate the scene by removing all persons from the 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 for fire-fighters	: Wear self-contained breathing apparatus for firefighting if necessary.

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 personnel to safe areas. Keep unnecessary and unprotected personnel from entering. Provide adequate ventilation. Avoid breathing dust.
Environmental precautions	: Prevent product from entering drains.

SAFETY DATA SHEET

Rely+On Virkon



Version 1.1 Revision Date: 03/02/2020 SDS Number: 103000027021 Date of previous issue: 02/19/2020
Country / Language: US / EN

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.
Keep people away from and upwind of spill/leak.
Avoid dust formation.
Do not dry sweep.
Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container.
Dispose of wastes in an approved waste disposal facility.

SECTION 7. HANDLING AND STORAGE

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.
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 container closed when not in 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 : Keep in a dry place.

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/m ³ (Persulphate)	ACGIH

Engineering measures : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other

SAFETY DATA SHEET

Rely+On Virkon



Version	Revision Date:	SDS Number:	Date of previous issue: 02/19/2020
1.1	03/02/2020	103000027021	Country / Language: US / EN

engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

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.
The following respirator is recommended if airborne concentrations exceed the appropriate standard/guideline.
NIOSH approved, air-purifying particulate respirator with N-95 filters.
- Hand protection
- Material : Butyl rubber - IIR
- Wearing time : < 60 min
- Eye protection : Safety glasses with side-shields
If inhalation hazards exist, a full-face respirator may be required instead.
- Skin and body protection : Wear suitable protective clothing.
- 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

- Physical state : solid
- Appearance : powder
- Color : yellow
- Odor : pleasant, sweet
- Odor Threshold : No data available
- pH : 2.2 - 2.7
Concentration: 1 %
- Melting point/freezing point : No data available
- Boiling point/boiling range : No data available

SAFETY DATA SHEET

Rely+On Virkon



Version	Revision Date:	SDS Number:	Date of previous issue: 02/19/2020
1.1	03/02/2020	103000027021	Country / Language: US / EN

Flash point	:	No data available
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit	:	No data available
Vapor pressure	:	No data available
Relative vapor density	:	No data available
Relative density	:	No data available
Density	:	No data available
Solubility(ies) Water solubility	:	65 g/l
Partition coefficient: n-octanol/water	:	No data available
Ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	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	:	No dangerous reaction known under conditions of normal use.
Conditions to avoid	:	Exposure to moisture.
Incompatible materials	:	Strong bases Combustible material Acids Oxidizing agents brass

SAFETY DATA SHEET

Rely+On Virkon



Version	Revision Date:	SDS Number:	Date of previous issue: 02/19/2020
1.1	03/02/2020	103000027021	Country / Language: US / EN

Copper
Halogenated compounds
Cyanides
Heavy metal salts

Hazardous decomposition products : Oxygen
Chlorine
Sulfur oxides
Hypochlorites

SECTION 11. TOXICOLOGICAL INFORMATION

The most important known symptoms and effects are described in Section 2 and/or Section 4.

Information on likely routes of exposure

Eye contact
Skin contact
Ingestion

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

Acute inhalation toxicity : LC50 (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.

SAFETY DATA SHEET

Rely+On Virkon



Version	Revision Date:	SDS Number:	Date of previous issue: 02/19/2020
1.1	03/02/2020	103000027021	Country / Language: US / EN

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

sodium dodecylbenzenesulfonate:

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

malic acid:

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

sulphamic 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
Remarks: Extrapolation according to Regulation (EC) No. 440/2008

potassium hydrogen sulphate:

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

SAFETY DATA SHEET

Rely+On Virkon



Version	Revision Date:	SDS Number:	Date of previous issue: 02/19/2020
1.1	03/02/2020	103000027021	Country / Language: US / EN

dipentene:

Acute oral toxicity : LD50 (Rat): 5,300 mg/kg

Acute dermal toxicity : LD50 (Rat): > 5,000 mg/kg

Skin corrosion/irritation

Causes skin irritation.

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.

sodium dodecylbenzenesulfonate:

Assessment: Irritating to skin.

malic acid:

Species: Rabbit

Method: OECD Test Guideline 404

Result: No skin irritation

sulphamic acid:

Species: Rabbit

Method: OECD Test Guideline 404

Result: Irritating to skin.

potassium hydrogen sulphate:

Assessment: Causes burns.

Dipotassium peroxodisulphate:

Species: Rabbit

Method: OECD Test Guideline 404

Result: Irritating to skin.

dipentene:

Assessment: Irritating to skin.

Serious eye damage/eye irritation

Causes serious eye damage.

SAFETY DATA SHEET

Rely+On Virkon



Version	Revision Date:	SDS Number:	Date of previous issue: 02/19/2020
1.1	03/02/2020	103000027021	Country / Language: US / EN

Product:

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

Components:

pentapotassium bis(peroxymonosulphate) bis(sulphate):

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

sodium dodecylbenzenesulfonate:

Assessment: Risk of serious damage to eyes.

malic acid:

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

sulphamic acid:

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

Dipotassium peroxodisulphate:

Result: Irritating to eyes.

dipentene:

Species: Rabbit
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.

Version	Revision Date:	SDS Number:	Date of previous issue: 02/19/2020
1.1	03/02/2020	103000027021	Country / Language: US / EN

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.

malic acid:

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

sulphamic 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.

dipentene:

Test Type: Maximization Test
Routes of exposure: Dermal
Species: Guinea pig
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

SAFETY DATA SHEET

Rely+On Virkon



Version 1.1	Revision Date: 03/02/2020	SDS Number: 103000027021	Date of previous issue: 02/19/2020 Country / Language: US / EN
----------------	------------------------------	-----------------------------	---

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
Result: negative

malic acid:

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

sulphamic 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.

Version	Revision Date:	SDS Number:	Date of previous issue: 02/19/2020
1.1	03/02/2020	103000027021	Country / Language: US / EN

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.

malic acid:

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

STOT-single exposure

Not classified based on available information.

Components:

potassium hydrogen sulphate:

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

sodium dodecylbenzenesulfonate:

Species: Rat

SAFETY DATA SHEET

Rely+On Virkon



Version	Revision Date:	SDS Number:	Date of previous issue: 02/19/2020
1.1	03/02/2020	103000027021	Country / Language: US / EN

NOAEL: 220 mg/kg
Application Route: Oral
Dose: 220 mg/kg
Remarks: Chronic toxicity

malic acid:

Remarks: No known significant effects or critical hazards.

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 : EC50 (Daphnia magna (Water flea)): 3.5 mg/l
aquatic invertebrates : Exposure time: 48 h
Method: OECD Test Guideline 202
GLP: yes
Remarks: Fresh water

Toxicity to algae : 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

sodium dodecylbenzenesulfonate:

Toxicity to fish (Chronic toxicity) : NOEC (Oncorhynchus kisutch (coho salmon)): 3.1 mg/l
Exposure time: 3 Days

SAFETY DATA SHEET

Rely+On Virkon



Version	Revision Date:	SDS Number:	Date of previous issue: 02/19/2020
1.1	03/02/2020	103000027021	Country / Language: US / EN

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 4 mg/l
Exposure time: 7 Days

malic acid:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 100 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)): 240 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
GLP: yes
Remarks: Fresh water

Toxicity to algae : 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

sulphamic 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 : 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

SAFETY DATA SHEET

Rely+On Virkon



Version	Revision Date:	SDS Number:	Date of previous issue: 02/19/2020
1.1	03/02/2020	103000027021	Country / Language: US / EN

Exposure time: 72 h
Method: OECD Test Guideline 201
GLP: yes
Remarks: Fresh water

Toxicity to fish (Chronic toxicity) : NOEC (Danio rerio (zebra fish)): ≥ 60 mg/l
Exposure time: 34 d
Method: OECD Test Guideline 210

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 19 mg/l
Exposure time: 21 d
Method: OECD Test Guideline 211

Toxicity to microorganisms : EC50: > 200 mg/l
End point: Respiration inhibition
Exposure time: 3 h
Method: OECD Test Guideline 209
GLP: yes
Remarks: Fresh water

Dipotassium peroxodisulphate:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 76.3 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 120 mg/l
Exposure time: 48 h

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (microalgae)): 83.7 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Ecotoxicology Assessment

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

dipentene:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 0.702 mg/l
Exposure time: 96 h
Remarks: Fresh water

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.421 mg/l
Exposure time: 48 h
Remarks: Fresh water

M-Factor (Acute aquatic toxicity) : 1

Version	Revision Date:	SDS Number:	Date of previous issue: 02/19/2020
1.1	03/02/2020	103000027021	Country / Language: US / EN

Persistence and degradability**Components:****pentapotassium bis(peroxymonosulphate) bis(sulphate):**

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

malic acid:

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

sulphamic 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.

dipentene:

Biodegradability : Result: Not rapidly biodegradable

Bioaccumulative potential**Components:****pentapotassium bis(peroxymonosulphate) bis(sulphate):**

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

sodium dodecylbenzenesulfonate:

Bioaccumulation : Bioconcentration factor (BCF): 220

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

malic acid:

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

sulphamic acid:

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

SAFETY DATA SHEET

Rely+On Virkon



Version	Revision Date:	SDS Number:	Date of previous issue: 02/19/2020
1.1	03/02/2020	103000027021	Country / Language: US / EN

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

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)

Disposal methods : 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

Domestic regulation

DOT

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



RQ : 7,192.43 lb
Marine pollutant : no
Further information for transport : When in individual containers of less than the Product RQ, this material ships as non-regulated.

International Regulations

IATA-DGR

Not regulated as a dangerous good

SAFETY DATA SHEET

Rely+On Virkon



Version 1.1 Revision Date: 03/02/2020 SDS Number: 103000027021 Date of previous issue: 02/19/2020
Country / Language: US / EN

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.

SECTION 15. REGULATORY INFORMATION

CERCLA

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
sodium dodecylbenzenesulfonate	25155-30-0	1000	7192

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	>= 10 - < 20
--------------------------------	------------	--------------

Pennsylvania Right To Know

pentapotassium bis(peroxymonosulphate) bis(sulphate)	70693-62-8	>= 50 - < 70
Polyphosphoric acids, sodium salts	68915-31-1	> 1
sodium dodecylbenzenesulfonate	25155-30-0	>= 10 - < 20
malic acid	6915-15-7	>= 5 - < 10
sulphamic acid	5329-14-6	>= 1 - < 5
potassium hydrogen sulphate	7646-93-7	>= 1 - < 5
Dipotassium peroxodisulphate	7727-21-1	>= 1 - < 5
sodium sulphate	7757-82-6	< 1

California Prop. 65

WARNING: This product can expose you to chemicals including 7-methyl-3-methyleneocta-1,6-diene, which is/are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Any chemical(s) listed above which do not appear elsewhere on this SDS are contained in this product at concentrations below 0.01%.

TSCA inventory

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

SAFETY DATA SHEET

Rely+On Virkon



Version 1.1 Revision Date: 03/02/2020 SDS Number: 103000027021 Date of previous issue: 02/19/2020
Country / Language: US / EN

TSCA list

No substances are subject to a Significant New Use Rule.

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

FIFRA

EPA Registration Number : 39967-138

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:

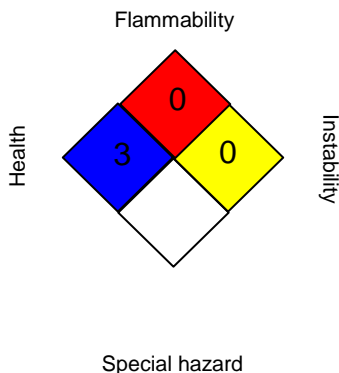
Signal Word : DANGER

Hazard Statements : Powder is corrosive. Causes severe eye and skin burns.
Harmful if swallowed or absorbed through skin.

SECTION 16. OTHER INFORMATION

Further information

NFPA:



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.

LANXESS' method of hazard communication is comprised of Product Labels and Safety Data Sheets. HMIS and NFPA ratings are provided by LANXESS as a customer service.

Revision Date : 03/02/2020

This information is furnished without warranty, express or implied. This information is believed to be accurate to the best knowledge of our knowledge. The information provided in this Safety Data Sheet (SDS) is correct to the best of our knowledge, information and belief at the date of its publication. We assume no legal responsibility for use of or reliance upon the information in this SDS.