

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Trade name : KSC I
 Product code : SALE01

1.2. Recommended use and restrictions on use

Recommended use : Fertilizers

1.3. Supplier

Distributor

Timac Agro USA, INC. Inc.
 Route 724 & I-176
 P.O. Box 888
 Reading, PA 19607, PENNSYLVANIA
 USA
 T 1-800-545-5474
info-fds@roullier.com

Manufacturer

TIMAC Agro España S.A.
 Polígono de Arazuri-Orcoyen, calle C, nº32
 ORCOYEN (NAVARRA), 31160
 España
 T +34 948 324 500 - F +34 948 324 032
info-fds@timacagro.es - www.timacagro.es

1.4. Emergency telephone number

Country	Organization/Company	Address	Emergency number	Comment
Americas	3E		+1-760-476-3962 (Access code : 333021)	(24/7)
USA	USA POISON CONTROL CENTER (24h/7d)		1-800-222-1222	

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Reproductive toxicity Category 1B H360 May damage fertility or the unborn child
 Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Danger
 Hazard statements (GHS US) : H360 - May damage fertility or the unborn child
 Precautionary statements (GHS US) : P201 - Obtain special instructions before use.
 P280 - Wear protective clothing, eye protection, face protection, protective gloves.
 P308+P313 - If exposed or concerned: Get medical advice/attention.

2.3. Other hazards which do not result in classification

Other hazards which do not result in classification : None under normal conditions.

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2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Disodium tetraborate pentahydrate, borax pentahydrate	CAS-No.: 12179-04-3	0.3 – 1	Eye Irrit. 2A, H319 Repr. 1B, H360

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general	: Prompt treatment is essential to minimize damage. If you feel unwell, seek medical advice.
First-aid measures after inhalation	: Move to fresh air in case of accidental inhalation. Seek medical attention if ill effect develops.
First-aid measures after skin contact	: Wash off with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Wash immediately with plenty water (during 20 minutes), also under eyelids. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an ophtalmologist if irritation persists. If possible show him this sheet. Failing this, show him the packaging or label.
First-aid measures after ingestion	: If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting without medical advice. Seek medical attention if ill effect develops.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects : see section(s) : 2.1/2.3).

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: water, carbon dioxide (CO ₂), powder and foam. Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media	: None known.

5.2. Specific hazards arising from the chemical

Fire hazard	: Not flammable.
Explosion hazard	: No direct explosion hazard.
Hazardous decomposition products in case of fire	: Thermal decomposition generates : fume.

5.3. Special protective equipment and precautions for fire-fighters

Precautionary measures fire	: Evacuate area. Eliminate all ignition sources if safe to do so.
Firefighting instructions	: Contain the extinguishing fluids by bunding.

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Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection. Complete protective clothing. EN 469. Self-contained breathing apparatus.
Other information	: Relevant water authorities should be notified of any large spillage to water course or drain.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Evacuate area.

6.1.1. For non-emergency personnel

Protective equipment	: Wear recommended personal protective equipment.
Emergency procedures	: Do not get in eyes, on skin, or on clothing. Do not breathe dust. Evacuate unnecessary personnel. Mark the danger area. Mechanically ventilate the spillage area. Only qualified personnel equipped with suitable protective equipment may intervene.

6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Ventilate area. Stop leak if safe to do so. Dike and contain spill.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment	: Collect spillage.
Methods for cleaning up	: Clean up immediately by sweeping or vacuum. Minimize generation of dust. Gather the product and place it in a spare container that has been suitably labeled.
Other information	: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Ensure good ventilation of the work station. Do not breathe dust. Avoid contact with eyes. Use personal protective equipment as required. Do not handle until all safety precautions have been read and understood.
Hygiene measures	: Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse. Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: The floor of the depot should be impermeable and designed to form a water-tight basin. Comply with applicable regulations.
Storage conditions	: Store in dry, cool, well-ventilated area. Protect from moisture. Keep out of reach of children. Store locked up.
Incompatible products	: Refer to the detailed list of incompatible materials in section 10 Stability/Reactivity.
Storage temperature	: Store at ambient temperature
Heat-ignition	: Keep away from open flames, hot surfaces and sources of ignition.
Information on mixed storage	: Keep away from food, drink and animal feeding stuffs.
Special rules on packaging	: Keep only in original container. Store in a closed container.

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

KSC I	
No additional information available	
Disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Sodium tetraborate, pentahydrate
ACGIH OEL TWA	2 mg/m ³ (I - Inhalable particulate matter)
ACGIH OEL STEL	6 mg/m ³ (I - Inhalable particulate matter)
Remark (ACGIH)	TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2022
USA - OSHA - Occupational Exposure Limits	
OSHA PEL (TWA) [1]	5 mg/m ³

8.2. Appropriate engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work station. Local exhaust and general ventilation must be adequate to meet exposure standards.
Environmental exposure controls	: Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems. Assure that emissions are compliant with all applicable air pollution control regulations. Comply with applicable regulations.

8.3. Individual protection measures/Personal protective equipment

Hand protection:				
Type	Material	Permeation	Thickness (mm)	Penetration
Disposable gloves, Reusable gloves	butyl rubber, Nitrile rubber, Polyvinylchloride (PVC)			
Eye protection:				
Safety glasses with side guards should be worn to prevent injury from airborne particles and/or other eye contact with this product				
Type	Field of application		Characteristics	
Safety glasses	Dust		With side shields	
Skin and body protection:				
Skin protection appropriate to the conditions of use should be provided. In case of repeated or prolonged contact wear gloves				
Respiratory protection:				
Where exposure through inhalation may occur from use, respiratory protection equipment is recommended				
Device	Filter type		Condition	
Disposable half mask, Reusable half mask	Type P2		Dust protection	

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Personal protective equipment symbol(s):



Other information:

See Heading 7 : 7.1. Precautions for safe handling.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Powder.
Color	: light yellow
Odor	: characteristic
Odor threshold	: No data available
pH	: No data available
pH solution	: 5.3 – 7.3 Water, 10%
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not flammable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Density	: 1.2
Solubility	: Water: Soluble
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: Product is not explosive.
Oxidizing properties	: Non oxidizing material according to EC criteria.

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

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10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

Strong acids. Strong bases. Oxidizing agent. Reducing agents. Copper and its alloys.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. In case of fire: See Heading 5.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)
Additional information	: No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation

Disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)

LD50 oral rat	3200 – 3400 mg/kg body weight U.S EPA FIFRA
LD50 dermal rabbit	> 2000 mg/kg body weight U.S EPA FIFRA
Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met. No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation) No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation

Disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)

pH	9.3 3% @ 20°C
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met) No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation

Disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)

pH	9.3 3% @ 20°C
Respiratory or skin sensitization	: Not classified (Based on available data, the classification criteria are not met. No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation) No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met) No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met) No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation
Reproductive toxicity	: May damage fertility or the unborn child.
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met) No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met) No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation

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Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met. No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation)
Viscosity, kinematic	: No data available
Symptoms/effects	: see section(s) : 2.1/2.3).

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.
Ecology - water	: Do not allow large quantities, as are, to spread into the environment. Do not discharge into drains or rivers.

Disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)	
LC50 - Fish [1]	537 mg/l Pimephales promelas - K and al., 2010)
EC50 - Crustacea [1]	896 mg/l daphnia, (Gersich, 1984a)
ErC50 algae	270 mg/l Pseudokirchneriella subcapitata (Hansveit and Oldersma, 2000)

12.2. Persistence and degradability

KSC I	
Persistence and degradability	Not established.

Disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)	
Persistence and degradability	Not established. Not relevant.

12.3. Bioaccumulative potential

KSC I	
Bioaccumulative potential	Not established. Low bioaccumulation potential.

12.4. Mobility in soil

Disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)	
Ecology - soil	Soluble in water. Small adsorption.

12.5. Other adverse effects

Other adverse effects	: May cause eutrophication at very low concentration.
Other information	: No other effects known.

SECTION 13: Disposal considerations

13.1. Disposal methods

Regional legislation (waste)	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	: Discharging into rivers and drains is forbidden.
Additional information	: Do not re-use empty containers.

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SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (DOT)	: Not applicable
Proper Shipping Name (TDG)	: Not applicable
Proper Shipping Name (IMDG)	: Not applicable
Proper Shipping Name (IATA)	: Not applicable

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : Not applicable

TDG

Transport hazard class(es) (TDG) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not applicable

IATA

Transport hazard class(es) (IATA) : Not applicable

14.4. Packing group

Packing group (DOT)	: Not applicable
Packing group (TDG)	: Not applicable
Packing group (IMDG)	: Not applicable
Packing group (IATA)	: Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

Special transport precautions : Prevent entry to sewers and public waters

DOT

No data available

TDG

No data available

IMDG

No data available

IATA

No data available

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

Not applicable

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SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

15.2. International regulations

CANADA

Disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 09/13/2022

Data sources : Section 1.2, 8.1, 11 & 12 are based on components' Chemical Safety Report and/or datas from components' supplier.

Training advice : Normal use of this product shall imply use in accordance with the instructions on the packaging.

Full text of H-phrases

H319	Causes serious eye irritation
H360	May damage fertility or the unborn child

Abbreviations and acronyms

LC50	Median lethal concentration
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
IARC	International Agency for Research on Cancer
DNEL	Derived-No Effect Level
EC50	Median effective concentration
ATE	Acute Toxicity Estimate
SDS	Safety Data Sheet
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LD50	Median lethal dose

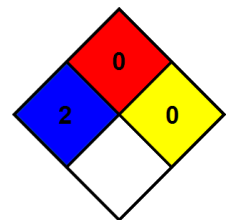
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Abbreviations and acronyms	
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
STP	Sewage treatment plant
vPvB	Very Persistent and Very Bioaccumulative
CAS-No.	Chemical Abstract Service number
BCF	Bioconcentration factor
EN	European Standard
IOELV	Indicative Occupational Exposure Limit Value
N.O.S.	Not Otherwise Specified
OEL	Occupational Exposure Limit
WGK	Water Hazard Class

- NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.
- NFPA fire hazard : 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.
- NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



- Hazard Rating
- Health : 2 Moderate Hazard - Temporary or minor injury may occur
- Flammability : 0 Minimal Hazard - Materials that will not burn
- Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.
- Personal protection : 1 - Safety glasses, Gloves, Dust & vapor respirator

Indication of changes:			
Section	Changed item	Change	Comments
3	Composition/Information on ingredients	Modified	
15	Regulatory reference	Modified	
16	Abbreviations and acronyms	Modified	

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Trade name : KSC IV
 Product code : SALE14

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Fertilisers
 Recommended use : Fertilizers

1.3. Supplier

Distributor

Timac Agro USA, INC. Inc.
 Route 724 & I-176
 P.O. Box 888
 Reading, PA 19607, PENNSYLVANIA
 USA
 T 1-800-545-5474
info-fds@roullier.com

Manufacturer

TIMAC Agro España S.A.
 Polígono de Arazuri-Orcoyen, calle C, nº32
 ORCOYEN (NAVARRA), 31160
 España
 T +34 948 324 500 - F +34 948 324 032
info-fds@timacagro.es - www.timacagro.es

1.4. Emergency telephone number

Country	Organization/Company	Address	Emergency number	Comment
Americas	3E		+1-760-476-3962 (Access code : 333021)	(24/7)
USA	USA POISON CONTROL CENTER (24h/7d)		1-800-222-1222	

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Serious eye damage/eye irritation Category 1 H318 Causes serious eye damage
 Reproductive toxicity Category 1B H360 May damage fertility or the unborn child (oral)
 Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Danger
 Hazard statements (GHS US) : H318 - Causes serious eye damage
 H360 - May damage fertility or the unborn child (oral)
 Precautionary statements (GHS US) : P201 - Obtain special instructions before use.
 P280 - Wear protective clothing, eye protection, face protection, protective gloves.
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

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contact lenses, if present and easy to do. Continue rinsing.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P310 - Immediately call a doctor, a POISON CENTER.

2.3. Other hazards which do not result in classification

Other hazards which do not result in classification : None under normal conditions.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Potassium carbonate	CAS-No.: 584-08-7	> 1 < 10	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
Dipotassium sulphate (Contains potassium hydrogensulphate 10%-15%)	CAS-No.: 7778-80-5	> 3	Eye Dam. 1, H318
Disodium tetraborate pentahydrate, borax pentahydrate	CAS-No.: 12179-04-3	> 0,3 < 1	Eye Irrit. 2A, H319 Repr. 1B, H360

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Prompt treatment is essential to minimize damage. Get medical advice/attention if you feel unwell.

First-aid measures after inhalation : Move to fresh air in case of accidental inhalation. Get medical advice/attention. If possible show him this sheet. Failing this, show him the packaging or label.

First-aid measures after skin contact : Wash with water and soap as a precaution. If case of redness or irritation, call a doctor.

First-aid measures after eye contact : Wash immediately with plenty water (during 20 minutes), also under eyelids. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an eye specialist immediately, even if there are no immediate symptoms. If possible show him this sheet. Failing this, show him the packaging or label.

First-aid measures after ingestion : If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting without medical advice. Seek medical advice (show the label where possible).

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects : see section(s) : 2.1/2.3).

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

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SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : water, carbon dioxide (CO₂), powder and foam. Use extinguishing media appropriate for surrounding fire.
- Unsuitable extinguishing media : None known.

5.2. Specific hazards arising from the chemical

- Fire hazard : Not flammable. Non oxidizing material according to EC criteria.
- Explosion hazard : No direct explosion hazard.
- Hazardous decomposition products in case of fire : Thermal decomposition generates : fume. Phosphorus oxides. Carbon oxides (CO, CO₂). Sulphur oxides.

5.3. Special protective equipment and precautions for fire-fighters

- Precautionary measures fire : Evacuate area. Eliminate all ignition sources if safe to do so.
- Firefighting instructions : Contain the extinguishing fluids by bunding. Eliminate all ignition sources if safe to do so.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Self-contained breathing apparatus. Complete protective clothing. EN 469.
- Other information : Do not allow run-off from fire fighting to enter drains or water courses. Relevant water authorities should be notified of any large spillage to water course or drain.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Remove ignition sources. Avoid dust formation. Evacuate area.

6.1.1. For non-emergency personnel

- Emergency procedures : Avoid contact with eyes. Do not breathe dust. Evacuate unnecessary personnel. Mark the danger area. Mechanically ventilate the spillage area. Only qualified personnel equipped with suitable protective equipment may intervene.

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
- Emergency procedures : Ventilate area. Stop leak if safe to do so. Dike and contain spill.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- For containment : Collect spillage.
- Methods for cleaning up : Clean up immediately by sweeping or vacuum. Minimize generation of dust. Gather the product and place it in a spare container that has been suitably labeled.
- Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Do not breathe dust. Avoid contact with eyes. Use personal protective equipment as required. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. Do not handle until all safety precautions have been read and understood.
- Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse. Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : The floor of the depot should be impermeable and designed to form a water-tight basin. Comply with applicable regulations.
- Storage conditions : Store in dry, cool, well-ventilated area. Protect from moisture. Keep out of reach of children. Store locked up.
- Incompatible products : Refer to the detailed list of incompatible materials in section 10 Stability/Reactivity.
- Storage temperature : Store at ambient temperature
- Heat-ignition : Keep away from open flames, hot surfaces and sources of ignition.
- Information on mixed storage : Keep away from food, drink and animal feeding stuffs.
- Storage area : Store away from heat. Store in a well-ventilated place.
- Special rules on packaging : Keep only in original container. Store in a closed container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

KSC IV	
No additional information available	
Potassium carbonate (584-08-7)	
No additional information available	
Dipotassium sulphate (Contains potassium hydrogensulphate 10%-15%) (7778-80-5)	
No additional information available	
Disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Sodium tetraborate, pentahydrate
ACGIH OEL TWA	2 mg/m ³ (I - Inhalable particulate matter)
ACGIH OEL STEL	6 mg/m ³ (I - Inhalable particulate matter)
Remark (ACGIH)	TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2022
USA - OSHA - Occupational Exposure Limits	
OSHA PEL (TWA) [1]	5 mg/m ³

8.2. Appropriate engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station. Local exhaust and general ventilation must be adequate to meet exposure standards.

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Environmental exposure controls : Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems. Assure that emissions are compliant with all applicable air pollution control regulations. Comply with applicable regulations.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Wear recommended personal protective equipment.

Eye protection:		
Safety glasses with side guards should be worn to prevent injury from airborne particles and/or other eye contact with this product		
Type	Field of application	Characteristics
Safety goggles	Dust	With side shields
Skin and body protection:		
Skin protection appropriate to the conditions of use should be provided. In case of repeated or prolonged contact wear gloves		
Type		
Gloves		
Respiratory protection:		
Where exposure through inhalation may occur from use, respiratory protection equipment is recommended		
Device	Filter type	Condition
Dust mask	Type P2	Dust protection

Personal protective equipment symbol(s):



Other information:

See Heading 7 : 7.1. Precautions for safe handling.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Powder.
Color	: Yellow orange
Odor	: characteristic
Odor threshold	: No data available
pH	: No data available
pH solution	: 5.3 – 7.3 Water, 10%
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not flammable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available

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Density	: 1.3
Solubility	: Water: Soluble
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: Not applicable
Explosive properties	: Product is not explosive.
Oxidizing properties	: Non oxidizing material according to EC criteria.

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under use and storage conditions as recommended in section 7.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

Strong acids. oxidizing agents (peroxides, chromates, dichromates). Acids. Aluminum. Copper and its alloys.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. In case of fire: See Heading 5.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)
Additional information	: No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation

Potassium carbonate (584-08-7)	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	> 4.96 mg/l/4h
ATE US (oral)	1870 mg/kg

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Dipotassium sulphate (Contains potassium hydrogensulphate 10%-15%) (7778-80-5)	
LD50 oral rat	> 2000 mg/kg (OECD 425 method) (Results obtained on a similar product)
LD50 dermal rat	> 2000 mg/kg (OECD 402 method) Practical experience
LC50 Inhalation - Rat (Vapours)	> 1.2 mg/l/4h (Results obtained on a similar product)
Disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)	
LD50 oral rat	3200 – 3400 mg/kg body weight U.S EPA FIFRA
LD50 dermal rabbit	> 2000 mg/kg body weight U.S EPA FIFRA
Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met) No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation
Potassium carbonate (584-08-7)	
pH	11.6 Aqueous solution
Dipotassium sulphate (Contains potassium hydrogensulphate 10%-15%) (7778-80-5)	
pH	3 – 6
Disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)	
pH	9.3 3% @ 20°C
Serious eye damage/irritation	: Causes serious eye damage.
Potassium carbonate (584-08-7)	
pH	11.6 Aqueous solution
Dipotassium sulphate (Contains potassium hydrogensulphate 10%-15%) (7778-80-5)	
pH	3 – 6
Disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)	
pH	9.3 3% @ 20°C
Respiratory or skin sensitization	: Not classified (Based on available data, the classification criteria are not met) No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met) No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met) No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation
Potassium carbonate (584-08-7)	
NOAEL (chronic,oral,animal/male,2 years)	2667 mg/kg body weight (Results obtained on a similar product) (Potassium bicarbonate ; 30 months)
NOAEL (chronic,oral,animal/female,2 years)	3331 mg/kg body weight (Results obtained on a similar product) (Potassium bicarbonate ; 30 months)
Reproductive toxicity	: May damage fertility or the unborn child (oral).
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met) No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation
Potassium carbonate (584-08-7)	
STOT-single exposure	May cause respiratory irritation.

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STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)
No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation

Potassium carbonate (584-08-7)	
NOAEL (oral,rat,90 days)	2667 – 3331 mg/kg bodyweight/day (Results obtained on a similar product) (Potassium bicarbonate ; 18 months)
NOAEC (inhalation,rat,vapor,90 days)	0.062 mg/l (OECD 412 method)
Dipotassium sulphate (Contains potassium hydrogensulphate 10%-15%) (7778-80-5)	
NOAEL (oral,rat,90 days)	≥ 1500 mg/kg bodyweight/day 28 days, (OECD 422 method), Practical experience
NOAEL (subacute,oral,animal/male,28 days)	256 mg/kg body weight 52 weeks, (OECD 453 method), (Results obtained on a similar product)
NOAEL (subacute,oral,animal/female,28 days)	284 mg/kg body weight 52 weeks, (OECD 453 method), (Results obtained on a similar product)

Aspiration hazard : Not classified
(Based on available data, the classification criteria are not met. No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation)

Viscosity, kinematic : No data available

Symptoms/effects : see section(s) : 2.1/2.3).

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

Ecology - water : Do not allow large quantities, as are, to spread into the environment. Do not discharge into drains or rivers.

Potassium carbonate (584-08-7)	
LC50 - Fish [1]	68 mg/l <i>Oncorhynchus mykiss</i> (Rainbow trout), 96h (FIFRA 72-1)
LC50 - Other aquatic organisms [1]	5595 mg/l <i>Eisenia</i> sp. (Results obtained on a similar product)
EC50 - Crustacea [1]	200 mg/l <i>Daphnia pulex</i> , 48h (FIFRA 72-1)
NOEC (acute)	4238 mg/kg <i>Eisenia</i> sp. (Results obtained on a similar product)
Dipotassium sulphate (Contains potassium hydrogensulphate 10%-15%) (7778-80-5)	
LC50 - Fish [1]	680 mg/l <i>Pimephales promelas</i> , 96 Hours, EPA 600/4-90/027, Freshwater, Practical experience
EC50 - Crustacea [1]	720 mg/l <i>Daphnia magna</i> , 48 Hours, EPA 600/4-90/027, Freshwater, Practical experience
EC50 - Other aquatic organisms [1]	> 100 mg/l ACTIVATED SLUDGE
EC50 96h - Algae [1]	2700 mg/l <i>Chlorella vulgaris</i> (18 days, Freshwater, (Results obtained on a similar product))
ErC50 algae	2700 mg/l <i>Chlorella vulgaris</i> , 18 days, (Results obtained on a similar product)
NOEC (chronic)	100 mg/l ACTIVATED SLUDGE
Disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)	
LC50 - Fish [1]	537 mg/l <i>Pimephales promelas</i> - K and al., 2010)
EC50 - Crustacea [1]	896 mg/l <i>daphnia</i> , (Gersich, 1984a)
ErC50 algae	270 mg/l <i>Pseudokirchneriella subcapitata</i> (Hansveit and Oldersma, 2000)

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12.2. Persistence and degradability

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Persistence and degradability	Not established.
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Dipotassium sulphate (Contains potassium hydrogensulphate 10%-15%) (7778-80-5)

Persistence and degradability	Not established. Not relevant.
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Disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)

Persistence and degradability	Not established. Not relevant.
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12.3. Bioaccumulative potential

KSC IV

Bioaccumulative potential	Not established.
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Dipotassium sulphate (Contains potassium hydrogensulphate 10%-15%) (7778-80-5)

Bioaccumulative potential	Not potentially bioaccumulable.
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12.4. Mobility in soil

Dipotassium sulphate (Contains potassium hydrogensulphate 10%-15%) (7778-80-5)

Ecology - soil	Small adsorption. Very mobile.
----------------	--------------------------------

Disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)

Ecology - soil	Soluble in water. Small adsorption.
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12.5. Other adverse effects

Other adverse effects : May cause eutrophication at very low concentration.
Other information : No other effects known.

SECTION 13: Disposal considerations

13.1. Disposal methods

Regional legislation (waste) : Disposal must be done according to official regulations.
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations : Discharging into rivers and drains is forbidden.
Additional information : Do not re-use empty containers.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Not applicable
Proper Shipping Name (TDG) : Not applicable
Proper Shipping Name (IMDG) : Not applicable
Proper Shipping Name (IATA) : Not applicable

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14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : Not applicable

TDG

Transport hazard class(es) (TDG) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not applicable

IATA

Transport hazard class(es) (IATA) : Not applicable

14.4. Packing group

Packing group (DOT) : Not applicable

Packing group (TDG) : Not applicable

Packing group (IMDG) : Not applicable

Packing group (IATA) : Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

DOT

No data available

TDG

No data available

IMDG

No data available

IATA

No data available

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

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
Potassium carbonate	584-08-7	Present	Active	
Dipotassium sulphate (Contains potassium hydrogensulphate 10%-15%)	7778-80-5	Present	Active	
Disodium tetraborate pentahydrate, borax pentahydrate	12179-04-3	Present	Active	

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15.2. International regulations

CANADA

Potassium carbonate (584-08-7)

Listed on the Canadian DSL (Domestic Substances List)

Dipotassium sulphate (Contains potassium hydrogensulphate 10%-15%) (7778-80-5)

Listed on the Canadian DSL (Domestic Substances List)

Disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

KSC IV

Ensure all national/local regulations are observed

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

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Revision date

: 09/13/2022

Data sources

: Section 1.2, 8.1, 11 & 12 are based on components' Chemical Safety Report and/or datas from components' supplier.

Training advice

: Normal use of this product shall imply use in accordance with the instructions on the packaging.

Full text of H-phrases

H302	Harmful if swallowed
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H360	May damage fertility or the unborn child

Abbreviations and acronyms

ATE	Acute Toxicity Estimate
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration

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Abbreviations and acronyms	
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
LD50	Median lethal dose
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
BCF	Bioconcentration factor
PBT	Persistent Bioaccumulative Toxic
vPvB	Very Persistent and Very Bioaccumulative
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
CAS-No.	Chemical Abstract Service number
SDS	Safety Data Sheet
EN	European Standard
N.O.S.	Not Otherwise Specified
IOELV	Indicative Occupational Exposure Limit Value
OEL	Occupational Exposure Limit
ED	Endocrine disrupting properties
STP	Sewage treatment plant

NFPA health hazard

: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard

: 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

NFPA reactivity

: 0 - Material that in themselves are normally stable, even under fire conditions.

Hazard Rating

Health

: 2 Moderate Hazard - Temporary or minor injury may occur

Flammability

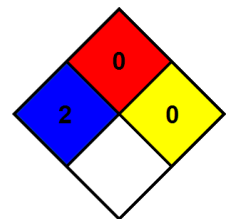
: 0 Minimal Hazard - Materials that will not burn

Physical

: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal protection

: 1 - Safety glasses, Gloves, Dust & vapor respirator



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Indication of changes:			
Section	Changed item	Change	Comments
	Flammability	Added	
	Supersedes	Added	
	Revision date	Added	
	Issue date	Added	
	NFPA reactivity	Added	
	NFPA health hazard	Added	
	NFPA fire hazard	Added	
	Personal protection	Added	
	Physical	Added	
	Health	Added	
3	Composition/Information on ingredients	Modified	
16	Abbreviations and acronyms	Modified	

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Trade name : KSC PHYT-ACTYL V
Product code : SALE05

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Fertilizer

1.3. Supplier

Distributor

Timac Agro USA, INC. Inc.
Route 724 & I-176
P.O. Box 888
Reading, PA 19607, PENNSYLVANIA
USA
T 1-800-545-5474
info-fds@roullier.com

Manufacturer

TIMAC Agro España S.A.
Polígono de Arazuri-Orcoyen, calle C, nº32
ORCOYEN (NAVARRA), 31160
España
T +34 948 324 500 - F +34 948 324 032
info-fds@timacagro.es - www.timacagro.es

1.4. Emergency telephone number

Country	Organization/Company	Address	Emergency number	Comment
Americas	3E		+1-760-476-3962 (Access code : 333021)	(24/7)
USA	USA POISON CONTROL CENTER (24h/7d)		1-800-222-1222	

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Skin corrosion/irritation Category 2 H315 Causes skin irritation
Serious eye damage/eye irritation Category 2 H319 Causes serious eye irritation
Reproductive toxicity Category 1B H360 May damage fertility or the unborn child (oral)
Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Danger

Hazard statements (GHS US) :

H315 - Causes skin irritation
H319 - Causes serious eye irritation
H360 - May damage fertility or the unborn child (oral)

Precautionary statements (GHS US) :

P201 - Obtain special instructions before use.
P264 - Wash hands, forearms and face thoroughly after handling.

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P280 - Wear protective clothing, eye protection, face protection.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.

2.3. Other hazards which do not result in classification

Other hazards which do not result in classification : None under normal conditions.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Potassium nitrate (Crystals)	CAS-No.: 7757-79-1	10 – 60	Ox. Sol. 3, H272
Potassium carbonate	CAS-No.: 584-08-7	10 – 20	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
Disodium tetraborate pentahydrate, borax pentahydrate	CAS-No.: 12179-04-3	0.3 – 1	Eye Irrit. 2A, H319 Repr. 1B, H360

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Prompt treatment is essential to minimize damage.
First-aid measures after inhalation : Move to fresh air in case of accidental inhalation. Get medical advice/attention. If possible show him this sheet. Failing this, show him the packaging or label.
First-aid measures after skin contact : Wash with water and soap as a precaution. If case of redness or irritation, call a doctor.
First-aid measures after eye contact : Wash immediately with plenty water (during 20 minutes), also under eyelids. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, consult an eye specialist immediately. If possible show him this sheet. Failing this, show him the packaging or label.
First-aid measures after ingestion : If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting without medical advice. Seek medical advice (show the label where possible).

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects : see section(s) : 2.1/2.3).

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

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SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : water, carbon dioxide (CO₂), powder and foam. Use extinguishing media appropriate for surrounding fire.
- Unsuitable extinguishing media : None known.

5.2. Specific hazards arising from the chemical

- Fire hazard : Not flammable.
- Explosion hazard : No direct explosion hazard.
- Hazardous decomposition products in case of fire : Thermal decomposition generates : fume.

5.3. Special protective equipment and precautions for fire-fighters

- Precautionary measures fire : Evacuate area. Eliminate all ignition sources if safe to do so.
- Firefighting instructions : Contain the extinguishing fluids by bunding.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Complete protective clothing. EN 469. Self-contained breathing apparatus.
- Other information : Relevant water authorities should be notified of any large spillage to water course or drain.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Evacuate area.

6.1.1. For non-emergency personnel

- Protective equipment : Wear recommended personal protective equipment.
- Emergency procedures : Do not breathe dust. Avoid contact with eyes. Evacuate unnecessary personnel. Keep upwind. Mechanically ventilate the spillage area. Mark the danger area. Only qualified personnel equipped with suitable protective equipment may intervene.

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
- Emergency procedures : Ventilate area. Stop leak if safe to do so. Dike and contain spill.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- For containment : Collect spillage.
- Methods for cleaning up : Clean up immediately by sweeping or vacuum. Minimize generation of dust. Gather the product and place it in a spare container that has been suitably labeled.
- Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Do not breathe dust. Avoid contact with eyes. Use personal protective equipment as required. Do not handle until all safety precautions have been read and understood.
- Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse. Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : The floor of the depot should be impermeable and designed to form a water-tight basin. Comply with applicable regulations.
- Storage conditions : Store in dry, cool, well-ventilated area. Protect from moisture. Keep out of reach of children. Store locked up.
- Incompatible products : Refer to the detailed list of incompatible materials in section 10 Stability/Reactivity.
- Storage temperature : Store at ambient temperature
- Heat-ignition : Keep away from open flames, hot surfaces and sources of ignition.
- Information on mixed storage : Keep away from food, drink and animal feeding stuffs.
- Special rules on packaging : Keep only in original container. Store in a closed container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

KSC PHYT-ACTYL V

No additional information available

Potassium nitrate (Crystals) (7757-79-1)

USA - ACGIH - Occupational Exposure Limits

ACGIH OEL TWA	15 mg/m ³
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Potassium carbonate (584-08-7)

No additional information available

Disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)

USA - ACGIH - Occupational Exposure Limits

Local name	Sodium tetraborate, pentahydrate
ACGIH OEL TWA	2 mg/m ³ (I - Inhalable particulate matter)
ACGIH OEL STEL	6 mg/m ³ (I - Inhalable particulate matter)
Remark (ACGIH)	TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2022

USA - OSHA - Occupational Exposure Limits

OSHA PEL (TWA) [1]	5 mg/m ³
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8.2. Appropriate engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station. Local exhaust and general ventilation must be adequate to meet exposure standards.

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Environmental exposure controls : Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems. Assure that emissions are compliant with all applicable air pollution control regulations. Comply with applicable regulations.

8.3. Individual protection measures/Personal protective equipment

Eye protection:		
Safety glasses with side guards should be worn to prevent injury from airborne particles and/or other eye contact with this product		
Skin and body protection:		
Skin protection appropriate to the conditions of use should be provided. In case of repeated or prolonged contact wear gloves		
Type		
Gloves		
Respiratory protection:		
Where exposure through inhalation may occur from use, respiratory protection equipment is recommended		
Device	Filter type	Condition
Disposable half mask, Reusable half mask	Type P2	Dust protection

Personal protective equipment symbol(s):



Other information:

See Heading 7 : 7.1. Precautions for safe handling.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Powder.
Color	: red
Odor	: characteristic
Odor threshold	: No data available
pH	: No data available
pH solution	: 5.5 – 7.5 Water, 10%
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not flammable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Density	: 1.3
Solubility	: Water: Soluble
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available

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Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: Product is not explosive.
Oxidizing properties	: On basis of test data : Non oxidizing (Test O.1 Test for oxidizing solids / Test O.3 Gravimetric test for oxidizing solids - Part III, section 34.4 of the UN Manual of Tests and Criteria).

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under use and storage conditions as recommended in section 7.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

Strong acids. Strong bases. oxidizing agents (peroxides, chromates, dichromates). Reducing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. In case of fire: See Heading 5.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)
Additional information	: No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation

KSC PHYT-ACTYL V	
ATE US (oral)	3036.081 mg/kg body weight
Additional data	No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation
Potassium nitrate (Crystals) (7757-79-1)	
LD50 oral rat	> 2000 mg/kg (OECD 425 method)
LD50 dermal rat	> 5000 mg/kg body weight (OECD 402 method)
LC50 Inhalation - Rat	> 527 mg/m ³ (OECD 403 method)
Potassium carbonate (584-08-7)	
LD50 oral rat	> 2000 mg/kg

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Potassium carbonate (584-08-7)	
LD50 dermal rat	> 2000 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	> 4.96 mg//4h
ATE US (oral)	1870 mg/kg
Disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)	
LD50 oral rat	3200 – 3400 mg/kg body weight U.S EPA FIFRA
LD50 dermal rabbit	> 2000 mg/kg body weight U.S EPA FIFRA
Skin corrosion/irritation	: Causes skin irritation. (Based on available data, the classification criteria are not met. No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation)
Potassium carbonate (584-08-7)	
pH	11.6 Aqueous solution
Disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)	
pH	9.3 3% @ 20°C
Serious eye damage/irritation	: Causes serious eye irritation.
Potassium carbonate (584-08-7)	
pH	11.6 Aqueous solution
Disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)	
pH	9.3 3% @ 20°C
Respiratory or skin sensitization	: Not classified (Based on available data, the classification criteria are not met. No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met) No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met) No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation
Potassium nitrate (Crystals) (7757-79-1)	
NOAEL (chronic,oral,animal/male,2 years)	≥ 1500 mg/kg body weight (OECD 422 method)
Potassium carbonate (584-08-7)	
NOAEL (chronic,oral,animal/male,2 years)	2667 mg/kg body weight (Results obtained on a similar product) (Potassium bicarbonate ; 30 months)
NOAEL (chronic,oral,animal/female,2 years)	3331 mg/kg body weight (Results obtained on a similar product) (Potassium bicarbonate ; 30 months)
Reproductive toxicity	: May damage fertility or the unborn child (oral).
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
KSC PHYT-ACTYL V	
Additional data	No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation
Potassium carbonate (584-08-7)	
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)

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Additional data	No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation
Potassium nitrate (Crystals) (7757-79-1)	
NOAEL (subacute,oral,animal/male,28 days)	> 1500 mg/kg body weight
Potassium carbonate (584-08-7)	
NOAEL (oral,rat,90 days)	2667 – 3331 mg/kg bodyweight/day (Results obtained on a similar product) (Potassium bicarbonate ; 18 months)
NOAEC (inhalation,rat,vapor,90 days)	0.062 mg/l (OECD 412 method)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met. No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation)
Viscosity, kinematic	: No data available
Symptoms/effects	: see section(s) : 2.1/2.3).

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.
Ecology - water	: Do not allow large quantities, as are, to spread into the environment. Do not discharge into drains or rivers.

Potassium nitrate (Crystals) (7757-79-1)	
LC50 - Fish [1]	1378 mg/l <i>Poecilia reticulata</i> , (OECD 203 method)
EC50 - Crustacea [1]	490 mg/l
ErC50 algae	> 1700 mg/l (OECD 209 method)
Potassium carbonate (584-08-7)	
LC50 - Fish [1]	68 mg/l <i>Oncorhynchus mykiss</i> (Rainbow trout), 96h (FIFRA 72-1)
LC50 - Other aquatic organisms [1]	5595 mg/l <i>Eisenia</i> sp. (Results obtained on a similar product)
EC50 - Crustacea [1]	200 mg/l <i>Daphnia pulex</i> , 48h (FIFRA 72-1)
NOEC (acute)	4238 mg/kg <i>Eisenia</i> sp. (Results obtained on a similar product)
Disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)	
LC50 - Fish [1]	537 mg/l <i>Pimephales promelas</i> - K and al., 2010)
EC50 - Crustacea [1]	896 mg/l <i>daphnia</i> , (Gersich, 1984a)
ErC50 algae	270 mg/l <i>Pseudokirchneriella subcapitata</i> (Hansveit and Oldersma, 2000)

12.2. Persistence and degradability

KSC PHYT-ACTYL V	
Persistence and degradability	Not established.
Potassium nitrate (Crystals) (7757-79-1)	
Persistence and degradability	degradable in water in anaerobic conditions.

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Disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)	
Persistence and degradability	Not established. Not relevant.

12.3. Bioaccumulative potential

KSC PHYT-ACTYL V	
Bioaccumulative potential	Not established.

Potassium nitrate (Crystals) (7757-79-1)	
Partition coefficient n-octanol/water (Log Pow)	Not applicable
Partition coefficient n-octanol/water (Log Kow)	Not applicable
Bioaccumulative potential	Low bioaccumulation potential.

12.4. Mobility in soil

Potassium nitrate (Crystals) (7757-79-1)	
Ecology - soil	Small adsorption. Material highly soluble in water.

Disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)	
Ecology - soil	Soluble in water. Small adsorption.

12.5. Other adverse effects

Other adverse effects	: May cause eutrophication at very low concentration.
Effect on the ozone layer	: None known
Effect on global warming	: None known
Other information	: No other effects known.

SECTION 13: Disposal considerations

13.1. Disposal methods

Regional legislation (waste)	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	: Discharging into rivers and drains is forbidden.
Additional information	: Do not re-use empty containers.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (DOT)	: Not applicable
Proper Shipping Name (TDG)	: Not applicable
Proper Shipping Name (IMDG)	: Not applicable
Proper Shipping Name (IATA)	: Not applicable

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14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : Not applicable

TDG

Transport hazard class(es) (TDG) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not applicable

IATA

Transport hazard class(es) (IATA) : Not applicable

14.4. Packing group

Packing group (DOT) : Not applicable

Packing group (TDG) : Not applicable

Packing group (IMDG) : Not applicable

Packing group (IATA) : Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

DOT

No data available

TDG

No data available

IMDG

No data available

IATA

No data available

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

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

15.2. International regulations

CANADA

Potassium nitrate (Crystals) (7757-79-1)

Listed on the Canadian DSL (Domestic Substances List)

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Potassium carbonate (584-08-7)

Listed on the Canadian DSL (Domestic Substances List)

Disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

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Ensure all national/local regulations are observed

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 09/13/2022

Data sources : Section 1.2, 8.1, 11 & 12 are based on components' Chemical Safety Report and/or datas from components' supplier.

Training advice : Normal use of this product shall imply use in accordance with the instructions on the packaging.

Full text of H-phrases

H272	May intensify fire; oxidizer
H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H360	May damage fertility or the unborn child

Abbreviations and acronyms

ATE	Acute Toxicity Estimate
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
LC50	Median lethal concentration
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
SDS	Safety Data Sheet
IATA	International Air Transport Association

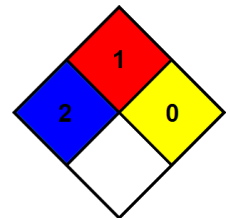
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Abbreviations and acronyms	
IMDG	International Maritime Dangerous Goods
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
STP	Sewage treatment plant
vPvB	Very Persistent and Very Bioaccumulative
IARC	International Agency for Research on Cancer
CAS-No.	Chemical Abstract Service number
IOELV	Indicative Occupational Exposure Limit Value
OEL	Occupational Exposure Limit
N.O.S.	Not Otherwise Specified

NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.
NFPA fire hazard : 1 - Materials that must be preheated before ignition can occur.
NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating
Health : 2 Moderate Hazard - Temporary or minor injury may occur
Flammability : 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)
Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.
Personal protection : B - Safety glasses, Gloves

Indication of changes:			
Section	Changed item	Change	Comments
	ATE US (oral)	Added	
	Reason for no classification	Added	
	Reason for no classification	Added	
2.1	Hazard statements (GHS US)	Modified	
2.2	Hazard statements (GHS US)	Modified	

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3	Hazard statements (GHS US)	Modified	
4	First-aid measures general	Modified	
5.2		Modified	
6	General measures	Modified	
7.1	Additional information	Removed	
8	Eye protection	Added	
8.1		Modified	
10	Chemical stability	Modified	
10	Possibility of hazardous reactions	Modified	
10	Conditions to avoid	Modified	
10	Incompatible materials	Modified	
11	Additional information	Added	
16	Abbreviations and acronyms	Modified	

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

SECTION 1: Identification

1.1. Identification

Product form : Mixtures
Trade name : KSC VI PHYTACTYL
Name : KSC VI PHYTACTYL
Product code : SALE06

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use : Fertilizers

1.3. Details of the supplier of the safety data sheet

Distributor

TIMAC Agro USA, INC
P.O. Box 888 - Route 724 & I-176
READING, - USA
T 1-800-545-5474
info-fds@roullier.com

Manufacturer

TIMAC Agro España S.A.
Polígono de Arazuri-Orcoyen, calle C, nº32
ORCOYEN (NAVARRA), 31160 - España
T +34 948 324 500 - F +34 948 324 032
info-fds@timacagro.es - www.timacagro.es

1.4. Emergency telephone number

Emergency number : USA POISON CONTROL : 1-800-222-1222

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Reproductive toxicity, H361
Category 2

Full text of H statements : see section 16

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



GHS08

Signal word (GHS-US) : Warning
Hazard statements (GHS-US) : H361 - Suspected of damaging fertility or the unborn child
Precautionary statements (GHS-US) : P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P280 - Wear face shield, protective clothing, protective gloves
P308+P313 - If exposed or concerned: Get medical advice/attention
P405 - Store locked up
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

2.3. Other hazards

Other hazards not contributing to the classification : None under normal conditions.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

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Name	Product identifier	%	GHS-US classification
potassium nitrate / Nitric acid potassium salt (1:1)	(CAS No) 7757-79-1	9.329	Ox. Sol. 3, H272
Potassium carbonate / Carbonic acid, potassium salt (1:2)	(CAS No) 584-08-7	2.78	Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319
disodium tetraborate pentahydrate, borax pentahydrate	(CAS No) 12179-04-3	0.673	Eye Irrit. 2A, H319 Repr. 2, H361

Full text of hazard classes and H-statements : see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : IF INHALED: remove victim to fresh air and keep at rest in a position comfortable for breathing. Seek medical attention if ill effect develops.
- First-aid measures after skin contact : After contact with skin, wash immediately and thoroughly with plenty of water.
- First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- First-aid measures after ingestion : Call a POISON CENTER or doctor/physician if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : If you feel unwell, seek medical advice.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Water spray.
- Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Not flammable. Non oxidizing material according to EC criteria.
- Reactivity : No dangerous reactions known.

5.3. Advice for firefighters

- Precautionary measures fire : Keep away from combustible material.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Self-contained breathing apparatus.
- Other information : Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Evacuate area.

6.1.1. For non-emergency personnel

- Emergency procedures : Do not breathe dust. Evacuate unnecessary personnel. Mechanically ventilate the spillage area.

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- For containment : Collect spillage.
- Methods for cleaning up : Clean up immediately by sweeping or vacuum. Minimize generation of dust. Collect up the product and place it in a spare container suitably labelled.
- Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- Precautions for safe handling : Provide local exhaust or general room ventilation. Avoid dust formation. Use personal protective equipment as required.
- Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Provide local exhaust or general room ventilation. The floor of the depot should be impermeable and designed to form a water-tight basin. Comply with applicable regulations.
- Storage conditions : Store in dry, cool, well-ventilated area. Protect from moisture.
- Incompatible products : Refer to the detailed list of incompatible materials in section 10 Stability/Reactivity.
- Heat and ignition sources : Keep away from open flames, hot surfaces and sources of ignition.
- Prohibitions on mixed storage : Keep away from food, drink and animal feeding stuffs.
- Storage area : Store away from heat. Store in a well-ventilated place. Keep out of reach of children.
- Special rules on packaging : Keep only in original container. Store in a closed container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)		
ACGIH	ACGIH TWA (mg/m ³)	8H 2 mg/m ³
ACGIH	ACGIH STEL (mg/m ³)	15Min 6 mg/m ³
OSHA	OSHA PEL (TWA) (mg/m ³)	10 mg/m ³
NIOSH	NIOSH REL (TWA) (mg/m ³)	10 mg/m ³
NIOSH	NIOSH REL (STEL) (mg/m ³)	10 mg/m ³
NIOSH	NIOSH REL (ceiling) (mg/m ³)	10 mg/m ³
Potassium carbonate / Carbonic acid, potassium salt (1:2) (584-08-7)		
ACGIH	ACGIH STEL (mg/m ³)	3 mg/m ³
potassium nitrate / Nitric acid potassium salt (1:1) (7757-79-1)		
ACGIH	ACGIH TWA (mg/m ³)	15 mg/m ³
Not applicable		

8.2. Exposure controls

- Appropriate engineering controls : Ensure good ventilation of the work station. Local exhaust and general ventilation must be adequate to meet exposure standards.
- Personal protective equipment : Safety glasses. Gloves. Protective clothing. Dust formation: dust mask.



- Hand protection : protective gloves.
- Eye protection : Safety glasses.
- Skin and body protection : Wear suitable protective clothing.
- Respiratory protection : Dust formation: dust mask.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Solid
- Colour : green
- Odour : characteristic
- Odour threshold : No data available

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pH	: No data available
pH solution	: 5.2 - 7.2 water, 10%
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 1.2 kg/l
Solubility	: Soluble in water.
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive limits	: No data available
Explosive properties	: No data available. If significant formation of dust, dust-air mixture may be flammable/explosive.
Oxidising properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Heat. Gel.

10.5. Incompatible materials

Reducing agents. Sawdust. Organic materials.

10.6. Hazardous decomposition products

Gaseous ammonia. Nitrogen oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified
(Based on available data, the classification criteria are not met)

KSC VI PHYTACTYL	
Additional information	No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation
disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)	
LD50 oral rat	3200 - 3400 mg/kg bodyweight EPA (Environmental Protection Agency)
LD50 dermal rabbit	> 2000 mg/kg bodyweight EPA (Environmental Protection Agency)
LC50 inhalation rat (mg/l)	> 2 mg/l (OECD 403 method)
ATE US (oral)	3200.000 mg/kg bodyweight

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disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)	
Additional information	Safety Data Sheet Supplier

Potassium carbonate / Carbonic acid, potassium salt (1:2) (584-08-7)	
LD50 oral rat	> 1870 mg/kg (OECD 401 method)
LD50 dermal rabbit	> 2000 mg/kg US EPA
LC50 inhalation rat (mg/l)	air 4.96 mg/l/4h US EPA
ATE US (oral)	500.000 mg/kg bodyweight

potassium nitrate / Nitric acid potassium salt (1:1) (7757-79-1)	
LD50 oral rat	> 2000 mg/kg (OECD 425 method)
LD50 dermal rat	> 5000 mg/kg bodyweight (OECD 402 method)
LC50 inhalation rat (mg/l)	air 4H > 527 mg/m ³ (OECD 403 method)

Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met. No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation)
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met. No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation)
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met. No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met. No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation)No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met. No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation)

potassium nitrate / Nitric acid potassium salt (1:1) (7757-79-1)	
NOAEL (chronic, oral, animal/male, 2 years)	> 1500 mg/kg bodyweight

Reproductive toxicity	: Suspected of damaging fertility or the unborn child. (No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation)No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation
Specific target organ toxicity (single exposure)	: Not classified (Based on available data, the classification criteria are not met)

KSC VI PHYTACTYL	
Additional information	No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation

Specific target organ toxicity (repeated exposure)	: Not classified (Based on available data, the classification criteria are not met)
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KSC VI PHYTACTYL	
Additional information	No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation

Potassium carbonate / Carbonic acid, potassium salt (1:2) (584-08-7)	
NOAEL (subacute, oral, animal/male, 28 days)	2667 mg/kg bodyweight rat

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potassium nitrate / Nitric acid potassium salt (1:1) (7757-79-1)	
NOAEL (subacute, oral, animal/male, 28 days)	> 1500 mg/kg bodyweight OECD 422

Aspiration hazard : Not classified
(Based on available data, the classification criteria are not met. No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation)

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation. Based on available data, the classification criteria are not met. Do not allow into drains or water courses.

disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)	
LC50 fish 1	96h - 74 mg/l Dab, Limanda limanda
EC50 Daphnia 1	24h - 242 mg/l Daphnids, Daphnia magna Straus
NOEC (chronic)	11.2 mg/l EPA OPPTS 850.1400 (Fish Early-life Stage Toxicity Test)
Additional ecotoxicological information	LC50: 88 mg/l (24 days)

Potassium carbonate / Carbonic acid, potassium salt (1:2) (584-08-7)	
LC50 fish 1	FIFRA 72-1 68 mg/l Oncorhynchus mykiss (Rainbow trout)
EC50 Daphnia 1	FIFRA 72-1 200 mg/l

potassium nitrate / Nitric acid potassium salt (1:1) (7757-79-1)	
LC50 fish 1	96h OCDE 203 > 98.9 mg/l Oncorhynchus mykiss (Rainbow trout)
LC50 other aquatic organisms 1	490 mg/l (Daphnia magna, 48h)
EC50 Daphnia 1	48H 490 mg/l Daphnia magna (NF EN ISO 6341)
EC50 other aquatic organisms 1	10d > 1700 mg/l algae
LC50 fish 2	96H 2400 - 4200 mg/l Lepomis macrochirus
EC50 Daphnia 2	72h 226 mg/l

12.2. Persistence and degradability

KSC VI PHYTACTYL	
Persistence and degradability	Product is biodegradable.

potassium nitrate / Nitric acid potassium salt (1:1) (7757-79-1)	
Persistence and degradability	Degradable in water in anaerobic conditions.

12.3. Bioaccumulative potential

KSC VI PHYTACTYL	
Bioaccumulative potential	Not established.

Potassium carbonate / Carbonic acid, potassium salt (1:2) (584-08-7)	
Bioaccumulative potential	Low bioaccumulation potential.

potassium nitrate / Nitric acid potassium salt (1:1) (7757-79-1)	
Bioaccumulative potential	Low bioaccumulation potential. Data sources : Safety Data Sheet Supplier.

12.4. Mobility in soil

Potassium carbonate / Carbonic acid, potassium salt (1:2) (584-08-7)	
Ecology - soil	Hygroscopic product.

potassium nitrate / Nitric acid potassium salt (1:1) (7757-79-1)	
Ecology - soil	Soluble in water. Safety Data Sheet Supplier.

12.5. Other adverse effects

Other adverse effects : Nitrates are responsible for the proliferation of algae in water, thus limiting or suppressing the development of other aquatic species (eutrophication).

Effect on the global warming : No known effects from this product.

GWPmix comment : No known effects from this product.

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

- Waste treatment methods : Dispose of in accordance with relevant local regulations. Dispose of this material and its container to hazardous or special waste collection point.
- Sewage disposal recommendations : If spilled : see chapter 6.
- Ecology - waste materials : Do not allow to enter drains or water courses.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not applicable

Transportation of Dangerous Goods

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory except for:

disodium tetraborate pentahydrate, borax pentahydrate	CAS No 12179-04-3	0.673%
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This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

15.2. International regulations

CANADA

No additional information available

Potassium carbonate / Carbonic acid, potassium salt (1:2) (584-08-7)

WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects Class E - Corrosive Material
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potassium nitrate / Nitric acid potassium salt (1:1) (7757-79-1)

WHMIS Classification	Class C - Oxidizing Material
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EU-Regulations

No additional information available

National regulations

KSC VI PHYTACTYL

Ensure all national/local regulations are observed

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

Revision date : 02/20/2017

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Data sources : Section 1.2, 8.1, 11 & 12 are based on components' Chemical Safety Report and/or datas from components' supplier.

Full text of H-statements:

H272	May intensify fire; oxidiser
H302	Harmful if swallowed
H319	Causes serious eye irritation
H361	Suspected of damaging fertility or the unborn child

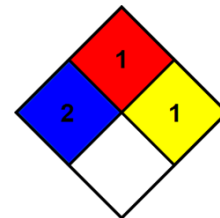
Abbreviations and acronyms:

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
EC50	Median effective concentration
LD50	Median lethal dose
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
ATE	Acute Toxicity Estimate
SDS	Safety Data Sheet
OECD	Organisation for Economic Co-operation and Development
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
vPvB	Very Persistent and Very Bioaccumulative

NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard : 1 - Materials that must be preheated before ignition can occur.

NFPA reactivity : 1 - Materials that in themselves are normally stable but can become unstable at elevated temperatures and pressures.



HMIS III Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur

Flammability : 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)

Physical : 1 Slight Hazard - Materials that are normally stable but can become unstable (self-react) at high temperatures and pressures. Materials may react non-violently with water or undergo hazardous polymerization in the absence of inhibitors.

Indication of changes:

	NFPA reactivity	Added	
	NFPA health hazard	Added	
	NFPA fire hazard	Added	
	Physical	Added	
	Health	Added	
	Flammability	Added	
	Display TSCA summary in 15.1	Added	
	Display SARA 313 summary in 15.1	Added	
	Display California Proposition 65 summary in 15.3	Added	
	Ecology - waste materials	Added	
	Reason for no classification	Added	
	Reason for no classification	Added	
	Reason for no classification	Added	
	Reason for no classification	Added	

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	classification		
	Reason for no classification	Added	
	Reason for no classification	Added	
	Reason for no classification	Added	
	Reason for no classification	Added	
	Reason for no classification	Added	
	Reason for no classification	Added	
	Additional information	Added	
	Additional information	Added	
	Additional information	Added	
	First-aid measures general	Added	
	Hazard pictograms (GHS-US)	Added	
	Precautionary statements (GHS-US)	Added	
	Hazard statements (GHS-US)	Added	
	First-aid measures after inhalation	Modified	
	Other adverse effects	Modified	
	Name	Modified	
	Signal word (GHS-US)	Added	
2.1	GHS-US classification	Added	
5.2	Fire hazard	Modified	
7.2	Storage area	Added	
7.2	Prohibitions on mixed storage	Added	
7.2	Technical measures	Added	
7.2	Storage conditions	Modified	
8.2	Appropriate engineering controls	Added	
12.1	Ecology - general	Added	
16	Abbreviations and acronyms	Added	
16	Data sources	Added	

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Trade name : KSC MICRO MIX
 Product code : SALE07

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Fertilizer

1.3. Supplier

Distributor

Timac Agro USA, INC. Inc.
 Route 724 & I-176
 P.O. Box 888
 Reading, PA 19607, PENNSYLVANIA
 USA
 T 1-800-545-5474
info-fds@roullier.com

Manufacturer

TIMAC Agro España S.A.
 Polígono de Arazuri-Orcoyen, calle C, nº32
 ORCOYEN (NAVARRA), 31160
 España
 T +34 948 324 500 - F +34 948 324 032
info-fds@timacagro.es - www.timacagro.es

1.4. Emergency telephone number

Country	Organization/Company	Address	Emergency number	Comment
Americas	3E		+1-760-476-3962 (Access code : 333021)	(24/7)
USA	USA POISON CONTROL CENTER (24h/7d)		1-800-222-1222	

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Reproductive toxicity Category 1B H360 May damage fertility or the unborn child (oral)
 Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Danger
 Hazard statements (GHS US) : H360 - May damage fertility or the unborn child (oral)
 Precautionary statements (GHS US) : P201 - Obtain special instructions before use.
 P202 - Do not handle until all safety precautions have been read and understood.
 P280 - Wear face shield, protective clothing, protective gloves.
 P308+P313 - If exposed or concerned: Get medical advice/attention.
 P405 - Store locked up.

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P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

Other hazards which do not result in classification : None under normal conditions.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Common Name (Synonyms)	Product identifier	%	GHS US classification
EDTA-CuNa2		CAS-No.: 14025-15-1	> 1 < 5	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319
Disodium tetraborate pentahydrate, borax pentahydrate		CAS-No.: 12179-04-3	> 1 < 5	Eye Irrit. 2A, H319 Repr. 1B, H360

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general	: Prompt treatment is essential to minimize damage. If you feel unwell, seek medical advice.
First-aid measures after inhalation	: Move to fresh air in case of accidental inhalation. Seek medical attention if ill effect develops.
First-aid measures after skin contact	: Wash off with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Wash immediately with plenty water (during 20 minutes), also under eyelids. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an ophthalmologist if irritation persists. If possible show him this sheet. Failing this, show him the packaging or label.
First-aid measures after ingestion	: If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting without medical advice. Seek medical attention if ill effect develops.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects : see section(s) : 2.1/2.3).

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : water, carbon dioxide (CO₂), powder and foam. Use extinguishing media appropriate for surrounding fire.

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Unsuitable extinguishing media : None known.

5.2. Specific hazards arising from the chemical

Fire hazard : Not flammable.
Explosion hazard : No direct explosion hazard.
Hazardous decomposition products in case of fire : Thermal decomposition generates : fume.

5.3. Special protective equipment and precautions for fire-fighters

Precautionary measures fire : Evacuate area. Eliminate all ignition sources if safe to do so.
Firefighting instructions : Contain the extinguishing fluids by bunding.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Complete protective clothing. EN 469. Self-contained breathing apparatus.
Other information : Relevant water authorities should be notified of any large spillage to water course or drain.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Evacuate area.

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.
Emergency procedures : Do not get in eyes, on skin, or on clothing. Do not breathe dust. Evacuate unnecessary personnel. Mark the danger area. Mechanically ventilate the spillage area. Only qualified personnel equipped with suitable protective equipment may intervene.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures : Ventilate area. Stop leak if safe to do so. Dike and contain spill.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.
Methods for cleaning up : Clean up immediately by sweeping or vacuum. Minimize generation of dust. Gather the product and place it in a spare container that has been suitably labeled.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Do not breathe dust. Avoid contact with eyes. Use personal protective equipment as required. Do not handle until all safety precautions have been read and understood.
Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse. Handle in accordance with good industrial hygiene and safety practice.

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7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: The floor of the depot should be impermeable and designed to form a water-tight basin. Comply with applicable regulations.
Storage conditions	: Store in dry, cool, well-ventilated area. Protect from moisture. Keep out of reach of children. Store locked up.
Incompatible products	: Refer to the detailed list of incompatible materials in section 10 Stability/Reactivity.
Storage temperature	: Store at ambient temperature
Heat-ignition	: Keep away from open flames, hot surfaces and sources of ignition.
Information on mixed storage	: Keep away from food, drink and animal feeding stuffs.
Special rules on packaging	: Keep only in original container. Store in a closed container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

KSC MICRO MIX

No additional information available

EDTA-CuNa2 (14025-15-1)

No additional information available

Disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)

USA - ACGIH - Occupational Exposure Limits

Local name	Sodium tetraborate, pentahydrate
ACGIH OEL TWA	2 mg/m ³ (I - Inhalable particulate matter)
ACGIH OEL STEL	6 mg/m ³ (I - Inhalable particulate matter)
Remark (ACGIH)	TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2022

USA - OSHA - Occupational Exposure Limits

OSHA PEL (TWA) [1]	5 mg/m ³
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8.2. Appropriate engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work station. Local exhaust and general ventilation must be adequate to meet exposure standards.
Environmental exposure controls	: Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems. Assure that emissions are compliant with all applicable air pollution control regulations. Comply with applicable regulations.

8.3. Individual protection measures/Personal protective equipment

Eye protection:

Safety glasses with side guards should be worn to prevent injury from airborne particles and/or other eye contact with this product

Type	Field of application	Characteristics
Safety glasses	Dust	With side shields

Skin and body protection:

Skin protection appropriate to the conditions of use should be provided. In case of repeated or prolonged contact wear gloves

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Type		
Gloves		
Respiratory protection:		
Where exposure through inhalation may occur from use, respiratory protection equipment is recommended		
Device	Filter type	Condition
Dust mask	Type P2	Dust protection

Personal protective equipment symbol(s):



Other information:

See Heading 7 : 7.1. Precautions for safe handling.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Powder.
Color	: Green
Odor	: characteristic
Odor threshold	: No data available
pH	: 5.1 – 7.1
pH solution concentration	: 10 % Water
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: In case of excessive dust production : Dust may form flammable and explosive mixture with air.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Density	: 1.3 kg/l
Solubility	: Water: Soluble
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: Not applicable
Explosive properties	: Product is not explosive.
Oxidizing properties	: Non oxidizing material according to EC criteria.

9.2. Other information

No additional information available

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SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

Acids. Bases. Metals. Oxidizing agent. Reducing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. In case of fire: See Heading 5.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)
Additional information	: No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation

EDTA-CuNa2 (14025-15-1)	
LD50 oral rat	890 mg/kg (OECD 403 method)
LC50 Inhalation - Rat	> 5.3 mg/l/4h (OECD 436 method)
ATE US (oral)	890 mg/kg body weight

Disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)	
LD50 oral rat	3200 – 3400 mg/kg body weight U.S EPA FIFRA
LD50 dermal rabbit	> 2000 mg/kg body weight U.S EPA FIFRA

Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met) No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation pH: 5.1 – 7.1
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Disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)	
pH	9.3 3% @ 20°C

Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met) No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation pH: 5.1 – 7.1
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Disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)	
pH	9.3 3% @ 20°C
Respiratory or skin sensitization	: Not classified (Based on available data, the classification criteria are not met) No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met) No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met) No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation
Reproductive toxicity	: May damage fertility or the unborn child (oral).
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met) No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met) No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met. No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation)
Viscosity, kinematic	: No data available
Symptoms/effects	: see section(s) : 2.1/2.3).
Other information	: Mixture does not contain substance (s) classified as PBT or vPvB in concentrations above 0,1%.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.
Ecology - water	: Do not allow large quantities, as are, to spread into the environment. Do not discharge into drains or rivers.

EDTA-CuNa2 (14025-15-1)	
LC50 - Fish [1]	555 mg/l <i>Lepomis macrochirus</i>
EC50 - Crustacea [1]	109.2 mg/l (OECD 202 method)
ErC50 algae	662.6 mg/l <i>Pseudokirchneriella subcapitata</i> - (OECD 201 method)
NOEC chronic fish	37.2 mg/l (OECD 210 method)
NOEC chronic crustacea	29.5 mg/l (OECD 211 method)

Disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)	
LC50 - Fish [1]	537 mg/l <i>Pimephales promelas</i> - K and al., 2010)
EC50 - Crustacea [1]	896 mg/l <i>daphnia</i> , (Gersich, 1984a)
ErC50 algae	270 mg/l <i>Pseudokirchneriella subcapitata</i> (Hansveit and Oldersma, 2000)

12.2. Persistence and degradability

KSC MICRO MIX	
Persistence and degradability	Not established.

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EDTA-CuNa ₂ (14025-15-1)	
Persistence and degradability	Not readily biodegradable.

Disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)	
Persistence and degradability	Not established. Not relevant.

12.3. Bioaccumulative potential

KSC MICRO MIX	
Bioaccumulative potential	Not established.

EDTA-CuNa ₂ (14025-15-1)	
Partition coefficient n-octanol/water (Log Pow)	-10.416
Bioaccumulative potential	Slightly or not bioaccumulative.

12.4. Mobility in soil

EDTA-CuNa ₂ (14025-15-1)	
Ecology - soil	Product adsorbs little onto the soil.

Disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)	
Ecology - soil	Soluble in water. Small adsorption.

12.5. Other adverse effects

Other information : No other effects known.

SECTION 13: Disposal considerations

13.1. Disposal methods

Regional legislation (waste) : Disposal must be done according to official regulations.
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations : Discharging into rivers and drains is forbidden.
Additional information : Do not re-use empty containers.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Not applicable
Proper Shipping Name (TDG) : Not applicable
Proper Shipping Name (IMDG) : Not applicable
Proper Shipping Name (IATA) : Not applicable

14.3. Transport hazard class(es)

DOT
Transport hazard class(es) (DOT) : Not applicable

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TDG

Transport hazard class(es) (TDG) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not applicable

IATA

Transport hazard class(es) (IATA) : Not applicable

14.4. Packing group

Packing group (DOT) : Not applicable

Packing group (TDG) : Not applicable

Packing group (IMDG) : Not applicable

Packing group (IATA) : Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

Special transport precautions : Prevent entry to sewers and public waters

DOT

No data available

TDG

No data available

IMDG

No data available

IATA

No data available

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

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
EDTA-CuNa ₂	14025-15-1	Present	Active	
Disodium tetraborate pentahydrate, borax pentahydrate	12179-04-3	Present	Active	

15.2. International regulations

CANADA

EDTA-CuNa₂ (14025-15-1)

Listed on the Canadian DSL (Domestic Substances List)

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Disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

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Ensure all national/local regulations are observed

15.3. US State regulations

No additional information available

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 09/23/2022

Data sources : Section 1.2, 8.1, 11 & 12 are based on components' Chemical Safety Report and/or datas from components' supplie.

Training advice : Normal use of this product shall imply use in accordance with the instructions on the packaging.

Full text of H-phrases

H302	Harmful if swallowed
H319	Causes serious eye irritation
H360	May damage fertility or the unborn child

Abbreviations and acronyms

CAS-No.	Chemical Abstract Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
EC-No.	European Community number
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development

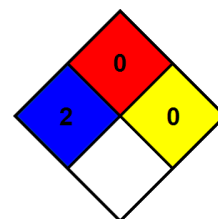
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Abbreviations and acronyms	
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative
STP	Sewage treatment plant
IOELV	Indicative Occupational Exposure Limit Value

- NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.
- NFPA fire hazard : 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.
- NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



- Hazard Rating
- Health : 2 Moderate Hazard - Temporary or minor injury may occur
- Flammability : 0 Minimal Hazard - Materials that will not burn
- Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.
- Personal protection : E - Safety glasses, Gloves, Dust respirator

Indication of changes:			
Section	Changed item	Change	Comments
	NFPA reactivity	Added	
	NFPA health hazard	Added	
	NFPA fire hazard	Added	
	Personal protection	Added	
	Physical	Added	
	Flammability	Added	
	Health	Added	
1	Emergency number	Added	
16	Abbreviations and acronyms	Modified	

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.