

SECTION 1: Identification

1.1. Identification

Product form : Mixtures
 Trade name : CORONA MASTER
 Name : CORONA MASTER
 Generic name : CORONA MASTER
 Product code : SAFO07

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

Serious eye damage/eye irritation, Category 1 H318
 Reproductive toxicity, Category 1B H360
 Specific target organ toxicity — Repeated exposure, Category 1 H372

Full text of H statements : see section 16

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



GHS05

GHS08

Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H318 - Causes serious eye damage
 H360 - May damage fertility or the unborn child
 H372 - Causes damage to organs through prolonged or repeated exposure (Inhalation, oral)

Precautionary statements (GHS-US) :

P201 - Obtain special instructions before use
 P260 - Do not breathe dust
 P280 - Wear face shield, protective clothing, protective gloves
 P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove 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
 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

No additional information available

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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
Manganese sulfate / Sulfuric acid, manganese(2+) salt (1:1)	(CAS No) 7785-87-7	15 - 20	Eye Irrit. 2A, H319 STOT RE 1, H372
Sulfuric acid, zinc salt (1:1)	(CAS No) 7733-02-0	15 - 20	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
disodium tetraborate pentahydrate, borax pentahydrate	(CAS No) 1303-96-4	3 - 4	Eye Irrit. 2A, H319 Repr. 1B, H360 STOT SE 3, H335
copper sulphate / Sulfuric acid copper(2+) salt (1:1)	(CAS No) 7758-98-7	3 - 4	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

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	: In all cases of doubt, or when symptoms persist, seek medical attention. Prompt treatment is essential to minimize damage. IF exposed or concerned: Get medical advice/attention. Get medical advice/attention if you feel unwell.
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 immediately.
First-aid measures after skin contact	: After contact with skin, wash immediately and thoroughly with plenty of water. Wash contaminated clothing before reuse. If on skin and if skin irritation occurs, seek medical advice and attention.
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. Consult an eye specialist immediately, even if there are no immediate symptoms.
First-aid measures after ingestion	: If swallowed, rinse mouth with water (only if the person is conscious). If swallowed, seek medical advice immediately and show this container or label. Give nothing to drink. Do not induce vomiting (irritation of the stomach possible). Ask for medical advice.

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: Firefighting 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.

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 : Remove ignition sources.

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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

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

Emergency procedures : Dike and contain spill. Stop leak if safe to do so.

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment : Sweep up or vacuum up the product. Avoid creating or spreading dust.

Methods for cleaning up : Clean up any spills as soon as possible, using an absorbent material to collect it. Do not absorb in saw-dust or other combustible absorbents.

Other information : Remove ignition sources.

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

Additional hazards when processed : Wash hands as often as necessary. Concerning personal protective equipment to use, see item 8.

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Remove contaminated clothing and shoes. Do not eat, drink or smoke in areas where product is used.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Keep out of reach of children.

Storage conditions : Keep container closed when not in use. Store in dry, cool, well-ventilated area. Keep only in the original container.

Incompatible products : Organic materials. Refer to section 10 on incompatible materials.

Incompatible materials : Refer to section 10 on incompatible materials.

Heat and ignition sources : Keep away from sources of ignition - No smoking.

Prohibitions on mixed storage : Keep away from food, drink and animal feeding stuffs.

Storage area : Store in dry, cool, well-ventilated area. Keep out of frost. Store away from heat/moisture.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Manganese sulfate / Sulfuric acid, manganese(2+) salt (1:1) (7785-87-7)		
ACGIH	ACGIH TWA (mg/m ³)	0.02 mg/m ³ Manganese and its inorganic compounds
ACGIH	ACGIH STEL (mg/m ³)	0.02 mg/m ³ Manganese and its inorganic compounds
ACGIH	ACGIH Ceiling (mg/m ³)	0.02 mg/m ³ Manganese and its inorganic compounds
OSHA	OSHA PEL (TWA) (mg/m ³)	0.2 mg/m ³ Manganese and its inorganic compounds
OSHA	OSHA PEL (STEL) (mg/m ³)	0.2 mg/m ³ Manganese and its inorganic compounds
OSHA	OSHA PEL (Ceiling) (mg/m ³)	0.2 mg/m ³ Manganese and its inorganic compounds
NIOSH	NIOSH REL (TWA) (mg/m ³)	1 mg/m ³ Manganese and its inorganic compounds
NIOSH	NIOSH REL (STEL) (mg/m ³)	3 mg/m ³ Manganese and its inorganic compounds
NIOSH	NIOSH REL (ceiling) (mg/m ³)	1 mg/m ³ Manganese and its inorganic compounds
Sulfuric acid, zinc salt (1:1) (7733-02-0)		
Not applicable		
disodium tetraborate pentahydrate, borax pentahydrate (1303-96-4)		
ACGIH	ACGIH TWA (mg/m ³)	8H 2 mg/m ³
ACGIH	ACGIH STEL (mg/m ³)	15Min 6 mg/m ³

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disodium tetraborate pentahydrate, borax pentahydrate (1303-96-4)		
OSHA	OSHA PEL (TWA) (mg/m ³)	10 mg/m ³
OSHA	OSHA PEL (STEL) (mg/m ³)	10 mg/m ³
OSHA	OSHA PEL (Ceiling) (mg/m ³)	10
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
copper sulphate / Sulfuric acid copper(2+) salt (1:1) (7758-98-7)		
ACGIH	ACGIH TWA (mg/m ³)	8h 1 mg/m ³ Copper (dusts and mists), as Cu
ACGIH	ACGIH STEL (mg/m ³)	8h 1 mg/m ³ Copper (dusts and mists), as Cu
ACGIH	ACGIH Ceiling (mg/m ³)	8h 1 mg/m ³ Copper (dusts and mists), as Cu
OSHA	OSHA PEL (TWA) (mg/m ³)	8h 1 mg/m ³ Copper (dusts and mists), as Cu
OSHA	OSHA PEL (STEL) (mg/m ³)	8h 1 mg/m ³ Copper (dusts and mists), as Cu
OSHA	OSHA PEL (Ceiling) (mg/m ³)	8h 1 Copper (dusts and mists), as Cu
NIOSH	NIOSH REL (STEL) (mg/m ³)	<10h 1 mg/m ³
NIOSH	NIOSH REL (ceiling) (mg/m ³)	<10h 1 mg/m ³

8.2. Exposure controls

Appropriate engineering controls

: Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

: Safety glasses. Gloves. Protective clothing. Dust formation: dust mask.



Hand protection

: protective gloves. (according to standard EN 374).

Eye protection

: Safety glasses. (according to standard EN 166).

Skin and body protection

: Wear suitable protective clothing.

Respiratory protection

: Dust formation: dust mask. Dust / anti-aerosol filter type P2 (according to standard EN 143).

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

: Solid

Colour

: White

Odour

: There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure.
Mixture contains one or more component(s) which have the following odour(s):
odourless

Odour threshold

: No data available

pH

: No data available

pH solution

: 3.1 - 5.1 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

: 1.5 kg/l

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Solubility	: No data available
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	: If significant formation of dust, dust-air mixture may be flammable/explosive.
Oxidising properties	: Non oxidizing material according to EC criteria.

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

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. Moisture.

10.5. Incompatible materials

Reducing agents. Sawdust.

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)

CORONA MASTER	
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
Manganese sulfate / Sulfuric acid, manganese(2+) salt (1:1) (7785-87-7)	
LD50 oral rat	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 4.45 mg/l (OECD 403 method)
Sulfuric acid, zinc salt (1:1) (7733-02-0)	
LD50 oral rat	1710 mg/kg (OECD 401 method)
LD50 dermal rat	> 2000 mg/kg (OECD 402 method)
ATE US (oral)	500.000 mg/kg bodyweight
Additional information	Safety Data Sheet Supplier
disodium tetraborate pentahydrate, borax pentahydrate (1303-96-4)	
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
Additional information	Safety Data Sheet Supplier
copper sulphate / Sulfuric acid copper(2+) salt (1:1) (7758-98-7)	
LD50 oral rat	481 mg/kg EPA OTS 798.1175
LD50 dermal rat	> 2000 mg/kg EPA OTS 798.1100

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copper sulphate / Sulfuric acid copper(2+) salt (1:1) (7758-98-7)	
ATE US (oral)	750.000 mg/kg bodyweight
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	: Causes serious eye damage.
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)
Reproductive toxicity	: May damage 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
Specific target organ toxicity (single exposure)	: Not classified (Based on available data, the classification criteria are not met)

CORONA MASTER	
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

copper sulphate / Sulfuric acid copper(2+) salt (1:1) (7758-98-7)	
LOAEL (oral, rat)	2000 mg/kg bodyweight EU Method B.26
NOAEL (oral, rat)	1000 mg/kg bodyweight EU Method B.26
Specific target organ toxicity (repeated exposure)	: Causes damage to organs through prolonged or repeated exposure (Inhalation, oral).

CORONA MASTER	
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

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)
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SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Toxic to aquatic life. 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. Do not allow uncontrolled discharge of product into the environment. Do not allow into drains or water courses.
Ecology - water	: Very toxic to aquatic life with long lasting effects.

Sulfuric acid, zinc salt (1:1) (7733-02-0)	
LC50 fish 1	0.112 mg/l American Society for testing materials 1988: Standard practice for conducting acute toxicity tests with fishes, macroinvertebrates and amphibians, ASTM, E-729-88, Philadelphia
EC50 Daphnia 1	48h 1.4 mg/l OECD 202

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Sulfuric acid, zinc salt (1:1) (7733-02-0)	
NOEC chronic fish	5Mo 0.05 mg/l Phoxinus phoxinus
Additional ecotoxicological information	Data sources : Safety Data Sheet Supplier
disodium tetraborate pentahydrate, borax pentahydrate (1303-96-4)	
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)
copper sulphate / Sulfuric acid copper(2+) salt (1:1) (7758-98-7)	
LC50 fish 1	16 µg/l 72 h (chlamydomonas reinhardtii)
EC50 Daphnia 1	7 µg/l
LC50 fish 2	13 µg/l (Catostomus commersoni)

12.2. Persistence and degradability

CORONA MASTER	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

CORONA MASTER	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

CORONA MASTER	
Ecology - soil	No data available.

12.5. Other adverse effects

Other adverse effects	: Do not flush into surface water or sanitary sewer.
Effect on the global warming	: No known effects from this product.
GWPmix comment	: No known effects from this product.
Other information	: No data / information available.

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.
Waste disposal recommendations	: Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT
Not applicable

Transportation of Dangerous Goods

Not applicable

Transport by sea

UN-No. (IMDG)	: 3077
Class (IMDG)	: 9 - Miscellaneous dangerous substances and articles

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Marine pollutant

: Yes



Air transport

UN-No. (IATA)

: 3077

Class (IATA)

: 9 - Miscellaneous Dangerous Goods

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

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

sulfate de zinc anhydre	CAS No 7733-02-0	15 - 20%
Sulfate de cuivre pentahydraté	CAS No 7758-98-7	3 - 4%

Sulfuric acid, zinc salt (1:1) (7733-02-0)

CERCLA RQ	1000 lb
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard

copper sulphate / Sulfuric acid copper(2+) salt (1:1) (7758-98-7)

CERCLA RQ	10 lb
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard

15.2. International regulations

CANADA

Manganese sulfate / Sulfuric acid, manganese(2+) salt (1:1) (7785-87-7)

WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects
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Sulfuric acid, zinc salt (1:1) (7733-02-0)

WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects
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disodium tetraborate pentahydrate, borax pentahydrate (1303-96-4)

WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects
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copper sulphate / Sulfuric acid copper(2+) salt (1:1) (7758-98-7)

WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects
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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

Revision date

: 12/23/2016

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Full text of H-statements:

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
H372	Causes damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

NFPA health hazard

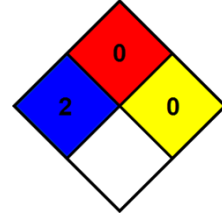
: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard

: 0 - Materials that will not burn under typical dire 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.



HMIS III 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.

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 : Fertilizer
 Trade name : CORONA K
 Name : CORONA K
 Generic name : CORONA K
 Product code : SAFO09

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

Use of the substance/mixture : Fertilizer

1.3. Details of the supplier of the safety data sheet

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

1.4. Emergency telephone number

Country	Official advisory body	Address	Emergency number	Comment
	USA POISON CONTROL CENTER (24h/7d)		1-800-222-1222	
Europe/Middle-East/Africa	3E		+1-760-476-3961 (Access code : 333021)	(24/7)
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER London	0870 243 2241	

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Ox. Sol. 3 : H272 -
 Eye Dam. 1 : H318 -

Full text of H-statements: see section 16

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



GHS03

GHS05

Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H272 - May intensify fire; oxidiser
 H318 - Causes serious eye damage

Precautionary statements (GHS-US) :

P210 - Keep away from heat, hot surfaces, open flames, sparks. - No smoking
 P221 - Take any precaution to avoid mixing with combustible materials
 P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P370+P378 - In case of fire: Use foam to extinguish
 P310 - Immediately call a doctor, a POISON CENTER

2.3. Other hazards

Other hazards not contributing to the classification :

None under normal conditions.

2.4. Unknown acute toxicity (GHS US)

Not applicable

CORONA K

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

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	GHS-US classification
potassium nitrate	(CAS No) 7757-79-1	59.445	Ox. Sol. 3, H272
potassium hydrogensulphate	(CAS No) 7646-93-7	1.46885	Skin Corr. 1B, H314 STOT SE 3, H335
disodium tetraborate pentahydrate, borax pentahydrate	(CAS No) 12179-04-3	0.68	Eye Irrit. 2A, H319 Repr. 1B, H360

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

- 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 : For even minor contact, immediately remove contaminated clothing. Wash skin thoroughly with mild soap and water. Seek medical attention if irritation develops. Wash contaminated clothing before reuse.
- 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 attention if ill effect develops.

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

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

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : water in large amounts. Foam.

5.2. Special hazards arising from the substance or mixture

Fire hazard : May intensify fire; oxidiser.
Reactivity : May cause or intensify fire; oxidizer. May release hazardous fumes.

5.3. Advice for firefighters

Precautionary measures fire : Keep away from combustible material.
Firefighting instructions : All fire-fighting personnel must wear safety suits. Use extinguishing media appropriate for surrounding fire.
Protection during firefighting : Wearing autonomous, insulating breathing equipment is recommended when entering the danger zone. Full face piece respirator (acid gas).
Other information : Avoid pouring fire water down the drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Ensure adequate ventilation.

6.1.1. For non-emergency personnel

Protective equipment : Wear suitable protective clothing. Keep away from all inflammation sources.
Emergency procedures : Remove ignition sources. Evacuate unnecessary personnel. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : For further information refer to section 8: "Exposure controls/personal protection". Wear suitable protective clothing and eye or face protection. Do not attempt to take action without suitable protective equipment.

6.2. Environmental precautions

Avoid release to the environment. Relevant water authorities should be notified of any large spillage to water course or drain.

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6.3. Methods and material for containment and cleaning up

- For containment : Do not absorb in saw-dust or other combustible absorbents.
- Methods for cleaning up : Recuperate the compound in an appropriate container for evacuation and disposal. Clean contaminated surfaces with an excess of water.
- Other information : Remove ignition sources.

6.4. Reference to other sections

SECTION 13. SECTION 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Keep away from sources of ignition - No smoking. Keep away from heat. Prevent moisture contact. Avoid dust production. Avoid contact with skin and eyes. Store in dry, cool, well-ventilated area. Ensure that there is a suitable ventilation system. Wear suitable protective clothing and eye/face protection.
- Hygiene measures : Always wash hands and face immediately after handling this product, and once again before leaving the workplace. If on skin, take off contaminated clothing. Do not drink, eat or smoke in the workplace.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Store in original container. Keep out of reach of children.
- Storage conditions : Keep container closed when not in use. Store in dry, cool, well-ventilated area. Keep only in the original container.
- Incompatible products : Organic materials. For further information, refer to section 10 : "Stability and Reactivity".
- Incompatible materials : Refer to section 10 on incompatible materials.
- Heat and ignition sources : Keep away from sources of ignition - No smoking.
- Prohibitions on mixed storage : Keep away from food, drink and animal feeding stuffs.
- Storage area : Keep out of frost. Keep away from food, drink and animal feeding stuffs. Store at ambient temperature. Store away from heat/moisture. Store in a dry area. Store in a well-ventilated place.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

potassium nitrate (7757-79-1)		
ACGIH	ACGIH TWA (mg/m ³)	15 mg/m ³

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

8.2. Exposure controls

- Appropriate engineering controls : Provide good ventilation in process area to prevent formation of vapour. General protective and hygienic measures.
- Personal protective equipment : Safety glasses. Gloves. Protective clothing. Dust formation: dust mask.



- Materials for protective clothing : Wear suitable protective clothing.
- Hand protection : Wear suitable gloves resistant to chemical penetration. (according to standard EN 374).
- Eye protection : Safety glasses with side guards should be worn to prevent injury from airborne particles and/or other eye contact with this product. (according to standard EN 166).
- Skin and body protection : Wear suitable protective clothing.
- Respiratory protection : No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation. In case of vapour formation use adequate respirator. Dust / anti-aerosol filter type P2 (according to standard EN 143).

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Other information : Always wash hands and face immediately after handling this product, and once again before leaving the workplace. If on skin, take off contaminated clothing. Do not drink, eat or smoke in the workplace.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid
Colour : White
Odour : characteristic
Odour threshold : No data available
pH : No data available
pH solution : 3.6 - 5.6 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) : No data available
Explosive limits : No data available
Explosive properties : No data available.
Oxidising properties : May intensify fire; oxidiser.
Vapour pressure : No data available
Relative density : No data available
Relative vapour density at 20 °C : No data available
Density : 1.2 kg/l
Solubility : Soluble in water.
Water: Solubility in water of component(s) of the mixture :
• potassium nitrate: 20°C > 320 g/l
Log Pow : No data available
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Viscosity : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

May cause or intensify fire; oxidizer. May release hazardous fumes.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

May react violently with reducing agents. May react violently with oxidants.

10.4. Conditions to avoid

Moisture. Heat. Freezing.

10.5. Incompatible materials

Reducing agent. Combustible material. Sawdust. Oxidation agents.

10.6. Hazardous decomposition products

Nitrogen oxides. Ammonia.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

CORONA K	
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 nitrate (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 > 0.527 mg/l (OECD 403 method)

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
Additional information	Safety Data Sheet Supplier

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 : Causes serious eye damage.

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)

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)

CORONA K	
IARC group	The principal components are not included in the I.A.R.C. list of carcinogenic substances.

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

Reproductive toxicity : 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. Contains a toxic to reproduction component (H360FD) at a concentration below the threshold for classifying the mixture.)Contains a toxic to reproduction component (H360FD) at a concentration below the threshold for classifying the mixture.

Specific target organ toxicity (single exposure) : Not classified
(Based on available data, the classification criteria are not met)

CORONA K	
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)

CORONA K	
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

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potassium nitrate (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

: 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. Avoid discharging large quantities of product into the environment. Do not allow to enter drains or water courses. Nitrates are responsible for the proliferation of algae in water, thus limiting or suppressing the development of other aquatic species (eutrophication).

potassium nitrate (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

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
Additional ecotoxicological information	LC50, Oncorhynchus mykiss (Rainbow trout): 88 mg/l (24 days)

12.2. Persistence and degradability

CORONA K

Persistence and degradability	Main components of the mixture have a good degradation.
-------------------------------	---

potassium nitrate (7757-79-1)

Persistence and degradability	Degradable in water in anaerobic conditions.
-------------------------------	--

12.3. Bioaccumulative potential

CORONA K

Bioaccumulative potential	No study has been carried out for the moment on this mixture.
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potassium nitrate (7757-79-1)

Bioaccumulative potential	Low bioaccumulation potential. Safety Data Sheet Supplier.
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12.4. Mobility in soil

CORONA K

Ecology - soil	No study has been carried out for the moment on this mixture.
----------------	---

potassium nitrate (7757-79-1)

Ecology - soil	Soluble in water. Safety Data Sheet Supplier.
----------------	---

12.5. Other adverse effects

Other adverse effects : May cause eutrophication at very low concentration.

Effect on the global warming : No known ecological damage caused by this product.

Other information : No study has been carried out for the moment on this mixture.

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.

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Sewage disposal recommendations	: If spilled : see chapter 6.
Additional information	: Remove to an authorized waste treatment plant.
Ecology - waste materials	: Do not allow into drains or water courses.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description	: UN1477 Nitrates, inorganic, n.o.s., 5.1, III
UN-No.(DOT)	: UN1477
Proper Shipping Name (DOT)	: Nitrates, inorganic, n.o.s.
Transport hazard class(es) (DOT)	: 5.1 - Class 5.1 - Oxidizer 49 CFR 173.128
Hazard labels (DOT)	: 5.1 - Oxidiser



Packing group (DOT)	: III - Minor Danger
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 213
DOT Packaging Bulk (49 CFR 173.xxx)	: 240
DOT Special Provisions (49 CFR 172.102)	: IB8 - Authorized IBCs: Metal (11A, 11B, 11N, 21A, 21B, 21N, 31A, 31B and 31N); Rigid plastics (11H1, 11H2, 21H1, 21H2, 31H1 and 31H2); Composite (11HZ1, 11HZ2, 21HZ1, 21HZ2, 31HZ1 and 31HZ2); Fiberboard (11G); Wooden (11C, 11D and 11F); Flexible (13H1, 13H2, 13H3, 13H4, 13H5, 13L1, 13L2, 13L3, 13L4, 13M1 or 13M2). IP3 - Flexible IBCs must be sift-proof and water-resistant or must be fitted with a sift-proof and water-resistant liner. T1 - 1.5 178.274(d)(2) Normal..... 178.275(d)(2) TP33 - The portable tank instruction assigned for this substance applies for granular and powdered solids and for solids which are filled and discharged at temperatures above their melting point which are cooled and transported as a solid mass. Solid substances transported or offered for transport above their melting point are authorized for transportation in portable tanks conforming to the provisions of portable tank instruction T4 for solid substances of packing group III or T7 for solid substances of packing group II, unless a tank with more stringent requirements for minimum shell thickness, maximum allowable working pressure, pressure-relief devices or bottom outlets are assigned in which case the more stringent tank instruction and special provisions shall apply. Filling limits must be in accordance with portable tank special provision TP3. Solids meeting the definition of an elevated temperature material must be transported in accordance with the applicable requirements of this subchapter.
DOT Packaging Exceptions (49 CFR 173.xxx)	: 152
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 25 kg
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 100 kg
DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
DOT Vessel Stowage Other	: 56 - Stow "separated from" ammonium compounds, 58 - Stow "separated from" cyanides
Other information	: No supplementary information available.

TDG

Transport document description	: 1477, 5.1, III
UN-No. (TDG)	: 1477
TDG Primary Hazard Classes	: 5.1 - Class 5.1 - Oxidizing Substances
Packing group	: III - Minor Danger

Transport by sea

UN-No. (IMDG)	: 1477
Proper Shipping Name (IMDG)	: NITRATES, INORGANIC, N.O.S.
Class (IMDG)	: 5.1 - Oxidizing substances
Packing group (IMDG)	: III - substances presenting low danger

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EmS-No. (1) : F-A
EmS-No. (2) : S-Q

Air transport

UN-No. (IATA) : 1477
Proper Shipping Name (IATA) : NITRATES, INORGANIC, N.O.S.
Class (IATA) : 5.1 - Oxidizing Substances
Packing group (IATA) : III - Minor Danger

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 0.68%

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

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

Indication of changes : This sheet was updated (refer to the date at the top of this page). Added. Toxicological information. Regulatory information.
Revision date : 07/07/2016
Data sources : Section 1.2, 8.1, 11 & 12 are based on components' Chemical Safety Report and/or datas from components' supplier.
Other information : according to Regulation (EC) No. 1907/2006 (REACH). according to the United Nations GHS (Rev. 5, 2013). according to Regulation (EU) 2015/830.

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Full text of H-statements:

Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Ox. Sol. 3	Oxidising Solids, Category 3
Repr. 1B	Reproductive toxicity, Category 1B
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H272	May intensify fire; oxidiser
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H360	May damage fertility or the unborn child

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 : CORONA N
Product code : SAFO10

1.2. Recommended use and restrictions on use

Recommended use : Fertilizers

1.3. Supplier

Distributor

Timac Agro USA, INC.
Route 724 & I-176
P.O. Box 888
Reading, PA 19607 - 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)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

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) :

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

Precautionary statements (GHS US) :

P201 - Obtain special instructions before use.
P280 - Wear face shield, protective clothing, protective gloves.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
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 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

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3.2. Mixtures

Name	Product identifier	%	GHS US classification
Ammonium nitrate	(CAS-No.) 6484-52-2	30 – 40	Ox. Sol. 3, H272 Eye Irrit. 2, H319
Potassium nitrate (Crystals)	(CAS-No.) 7757-79-1	15 – 20	Ox. Sol. 3, H272
Disodium tetraborate pentahydrate, borax pentahydrate	(CAS-No.) 12179-04-3	0.5 – 1	Eye Irrit. 2A, H319 Repr. 1B, H360
Silica	(CAS-No.) 7631-86-9	< 0,1	Not classified

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. Seek medical attention if ill effect develops.
- First-aid measures after skin contact : Wash skin with plenty of water and soap. If skin irritation 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. If eye irritation persists: Get medical advice/attention. 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.

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 : May release hazardous fumes.

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

- 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.

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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.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

CORONA N	
No additional information available	
Disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Sodium tetraborate, pentahydrate
ACGIH TWA (mg/m ³)	2 mg/m ³ (I - Inhalable particulate matter)
ACGIH STEL (mg/m ³)	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 2020
USA - OSHA - Occupational Exposure Limits	
OSHA PEL (TWA) (mg/m ³)	5 mg/m ³
Ammonium nitrate (6484-52-2)	
No additional information available	
Potassium nitrate (Crystals) (7757-79-1)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH TWA (mg/m ³)	15 mg/m ³
Silica (7631-86-9)	
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL (TWA) (mg/m ³)	6

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

Type	Use	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 excessive dust may result, wear approved mask

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
Color	: White
Odor	: characteristic
Odor threshold	: No data available
pH	: No data available
pH solution	: 4 – 6 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)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Specific gravity / density	: 1.2 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

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Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: Not determined.
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

Reducing agents. Sawdust. Organic materials.

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
Acute toxicity (inhalation)	: Not classified
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

Ammonium nitrate (6484-52-2)

LD50 oral rat	2950 mg/kg (OECD 401 method)
LD50 dermal rat	> 5000 mg/kg (OECD 402 method)
LC50 Inhalation - Rat	> 88.8 mg/m ³

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)

Silica (7631-86-9)

LD50 oral rat	> 3300 mg/kg
LD50 dermal rabbit	> 5000
LC50 Inhalation - Rat	0.139 mg/l/4h

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	: Causes serious eye irritation.
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)

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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)

Silica (7631-86-9)	
IARC group	3 - Not classifiable

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

Ammonium nitrate (6484-52-2)	
NOAEL (subacute,oral,animal/male,28 days)	≥ 1500 mg/kg body weight rat - (OECD 422 method)

Potassium nitrate (Crystals) (7757-79-1)	
NOAEL (subacute,oral,animal/male,28 days)	> 1500 mg/kg body weight

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 Daphnia 1	896 mg/l daphnia. (Gersich, 1984a)
ErC50 (algae)	270 mg/l Pseudokirchneriella subcapitata (Hansveit and Oldersma, 2000)

Ammonium nitrate (6484-52-2)	
LC50 fish 1	447 mg/l Cyprinus carpio (Common carp), 48 Hours
EC50 Daphnia 1	490 mg/l 48 Hours, (Results obtained on a similar product)
LC50 fish 2	Cyprinus carpio (Common carp)
ErC50 (algae)	> 1700 mg/l 10 days, (Results obtained on a similar product)
NOEC chronic crustacea	555 mg/l 168 Hours, Bullia Digitalis

Potassium nitrate (Crystals) (7757-79-1)	
LC50 fish 1	1378 mg/l Poecilia reticulata, (OECD 203 method)
EC50 Daphnia 1	490 mg/l
ErC50 (algae)	> 1700 mg/l (OECD 209 method)

Silica (7631-86-9)	
LC50 fish 1	> 10000 mg/l Brachydanio rerio, 96 h

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Silica (7631-86-9)	
EC50 Daphnia 1	> 1000 mg/l Daphnia magna, 24 h

12.2. Persistence and degradability

CORONA N	
Persistence and degradability	Product is biodegradable.
Disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)	
Persistence and degradability	Not established. Not relevant.
Potassium nitrate (Crystals) (7757-79-1)	
Persistence and degradability	Degradable in water in anaerobic conditions.

12.3. Bioaccumulative potential

CORONA N	
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

CORONA N	
Ecology - soil	No additional information available.
Disodium tetraborate pentahydrate, borax pentahydrate (12179-04-3)	
Ecology - soil	Soluble in water. Small adsorption.
Potassium nitrate (Crystals) (7757-79-1)	
Ecology - soil	Small adsorption. Material highly soluble in water.

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

Department of Transportation (DOT)

In accordance with DOT

Not applicable

Transportation of Dangerous Goods

Not applicable

Transport by sea

Not applicable

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Air transport

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

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

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Ammonium nitrate (6484-52-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

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

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Silica (7631-86-9)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

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

Listed on the Canadian DSL (Domestic Substances List)

Ammonium nitrate (6484-52-2)

Listed on the Canadian DSL (Domestic Substances List)

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

Listed on the Canadian DSL (Domestic Substances List)

Silica (7631-86-9)

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

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Revision date : 12/23/2020

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

Indication of changes:

Section	Changed item	Change	Comments
	Reason for no classification	Modified	
	Reason for no classification	Modified	
	Signal word (GHS US)	Modified	
	Precautionary statements (GHS US)	Modified	
	Hazard statements (GHS US)	Modified	
2.1	GHS-US classification	Modified	
7.1	Precautions for safe handling	Added	
7.2	Storage conditions	Added	
11	Additional information	Added	

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11	Additional information	Added	
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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.