

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Fertilizer  
 Trade name : FERTIACTYL CORN PLUS :  
 Name : FERTIACTYL CORN PLUS :  
 Generic name : FERTIACTYL CORN PLUS:  
 Product code : FYLCRNUSA  
 Product group : Mixture

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

##### 1.2.1. Relevant identified uses

Main use category : Professional use  
 Use of the substance/mixture : Fertilizer

##### 1.2.2. Uses advised against

No additional information available

#### 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](mailto: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: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin corrosion/irritation, Category 2 H315  
 Serious eye damage/eye irritation, Category 2 H319  
 Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation H335

Full text of H statements : see section 16

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS07

Signal word (CLP) : Warning  
 Hazardous ingredients : Urea  
 Hazard statements (CLP) : H315 - Causes skin irritation  
 H319 - Causes serious eye irritation  
 H335 - May cause respiratory irritation  
 Precautionary statements (CLP) : P271 - Use only outdoors or in a well-ventilated area  
 P280 - Wear face protection, protective clothing, protective gloves

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according to the United Nations GHS (Rev. 5, 2013).

P302+P352 - IF ON SKIN: Wash with plenty of water  
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing  
P305+P351+P338+P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a doctor, a POISON CENTER  
P337+P313 - If eye irritation persists: Get medical advice/attention

Security closing plug for children : No  
Tactile warning : No

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Not applicable

### 3.2. Mixture

Name	Product identifier	%	Classification according to Directive 67/548/EEC	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Urea	(CAS No) 57-13-6 (EC no) 200-315-5 (REACH-no) 01-2119463277-33	10 - 40	Not classified	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
potassium hydroxide, caustic potash	(CAS No) 1310-58-3 (EC no) 215-181-3 (EC index no) 019-002-00-8	1 - 2	Not classified	Acute Tox. 4 (Oral), H302 Skin Corr. 1A, H314

#### Specific concentration limits:

Name	Product identifier	Specific concentration limits: DSD/DPD	Specific concentration limits: CLP
potassium hydroxide, caustic potash	(CAS No) 1310-58-3 (EC no) 215-181-3 (EC index no) 019-002-00-8	(0.5 =< C < 2) Xi;R36/38 (2 =< C < 5) C;R34 (C >= 5) C;R35	(0.5 =< C < 2) Eye Irrit. 2, H319 (0.5 =< C < 2) Skin Irrit. 2, H315 (2 =< C < 5) Skin Corr. 1B, H314 (C >= 5) Skin Corr. 1A, H314

Full text of R- 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 : Call a POISON CENTER or doctor/physician. Move the affected person away from the contaminated area and into the fresh air.  
First-aid measures after skin contact : Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Get medical advice/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.  
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, 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, carbon dioxide (CO<sub>2</sub>), powder and foam.  
Unsuitable extinguishing media : None known.

### 5.2. Special hazards arising from the substance or mixture

Fire hazard : Not combustible. By thermal decomposition, product may emit oxides of sulfur, phosphorus oxides (eg P<sub>2</sub>O<sub>5</sub>), corrosive and toxic, ammonia.  
Explosion hazard : Not explosive.  
Reactivity in case of fire : Reacts vigorously with strong oxidizers and acids.  
Hazardous decomposition products in case of fire : Nitrous fumes. Carbon dioxide.

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according to the United Nations GHS (Rev. 5, 2013).

### 5.3. Advice for firefighters

Precautionary measures fire	: Comply with the safety procedures.
Firefighting instructions	: All fire-fighting personnel must wear safety suits. Use extinguishing media appropriate for surrounding fire.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.
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 : Avoid contact with skin and eyes. Where contact with eyes or skin is likely, wear suitable protection. Concerning personal protective equipment to use, see item 8.

#### 6.1.1. For non-emergency personnel

Protective equipment : Equip cleanup crew with proper protection.

#### 6.1.2. For emergency responders

No additional information available

### 6.2. Environmental precautions

Prevent entry to sewers and public waters.

### 6.3. Methods and material for containment and cleaning up

For containment	: Absorb remaining liquid with sand or inert absorbent and remove to safe place.
Methods for cleaning up	: Wash away remainder with plenty of water. Recuperate the compound in an appropriate container for evacuation and disposal.

### 6.4. Reference to other sections

SECTION 8. SECTION 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling	: Avoid contact with skin, eyes and clothing. Ensure that there is a suitable ventilation system. Wear suitable protective clothing, gloves and eye or face protection.
Hygiene measures	: Handle in accordance with good industrial hygiene and safety procedures. Always wash hands after handling the product. If on skin, take off contaminated clothing. Do not eat, drink or smoke in areas where product is used.

### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Handle and open container with care.
Storage conditions	: Keep away from food, drink and animal feeding stuffs.
Incompatible products	: Strong acids. Strong oxidizing agents.
Incompatible materials	: Refer to section 10 on incompatible materials.
Storage temperature	: 4 - 30 °C
Storage area	: Store at ambient temperature. Keep out of frost. Store away from heat/moisture. Store in a dry area. Store in a well-ventilated place.
Special rules on packaging	: Store in original container.

### 7.3. Specific end use(s)

Fertilizer. Agriculture.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### potassium hydroxide, caustic potash (1310-58-3)

DNEL/DMEL (Workers)

Long-term - systemic effects, inhalation	1 mg/m <sup>3</sup>
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### 8.2. Exposure controls

Appropriate engineering controls	: Ensure adequate ventilation.
Personal protective equipment	: Gloves. Safety glasses.
Hand protection	: Wear suitable gloves resistant to chemical penetration. Latex gloves. butyl rubber gloves

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves, Reusable gloves	Butyl rubber, Latex				EN 374

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according to the United Nations GHS (Rev. 5, 2013).

Eye protection : (according to standard EN 166). Safety glasses with side shields

Type	Use	Characteristics	Standard
Safety goggles		With side shields	EN 166

Skin and body protection : Use chemically protective clothing

Respiratory protection : Dust / anti-aerosol filter type P2 (according to standard EN 143)

Device	Filter type	Condition	Standard
Aerosol mask	Type P2		EN 143



Other information : Handle in accordance with good industrial hygiene and safety practice. Wash hands after working with the product. 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	: Liquid
Colour	: Black.
Odour	: characteristic.
Odour threshold	: No data available
pH	: 10.8
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: 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	: 1270 kg/m <sup>3</sup>
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available.
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reacts with : strong oxidants and strong acids.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

None under normal use.

### 10.4. Conditions to avoid

All heat sources, including direct sunlight. Moisture. Freezing.

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according to the United Nations GHS (Rev. 5, 2013).

### 10.5. Incompatible materials

Oxidation agents. Strong acids.

### 10.6. Hazardous decomposition products

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)  
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

#### Urea (57-13-6)

LD50 oral rat	> 2000 mg/kg
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Skin corrosion/irritation : Causes skin irritation.  
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: 10.8

Serious eye damage/irritation : Causes serious eye irritation.  
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: 10.8

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

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

Specific target organ toxicity (single exposure) : May cause respiratory 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

Specific target organ toxicity (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

#### Urea (57-13-6)

NOAEL (oral, rat, 90 days)	2250 mg/kg bodyweight/day
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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

## 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.

Ecology - water : May cause eutrophication at very low concentration. Do not allow to enter drains or water courses.

#### Urea (57-13-6)

LC50 fish 1	> 6810 mg/l
EC50 Daphnia 1	> 10000 mg/l

### 12.2. Persistence and degradability

#### FERTIACTYL CORN

Persistence and degradability	No study has been carried out for the moment on this mixture.
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according to the United Nations GHS (Rev. 5, 2013).

Urea (57-13-6)	
Biodegradation	Readily biodegradable

### 12.3. Bioaccumulative potential

FERTIACTYL CORN	
Bioaccumulative potential	No study has been carried out for the moment on this mixture.

Urea (57-13-6)	
Log Pow	-1.73 (20°C)
Bioaccumulative potential	Low bioaccumulation potential.

### 12.4. Mobility in soil

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

Urea (57-13-6)	
Log Koc	-1.43 - -1.19

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

Other adverse effects : May cause pH changes in aqueous ecological systems. May cause eutrophication at very low concentration.  
Additional information : No other effects known

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Dispose of this material and its container to hazardous or special waste collection point. Dispose in a safe manner in accordance with local/national regulations.  
Sewage disposal recommendations : Do not allow to enter drains or water courses.  
Waste disposal recommendations : Do not allow to enter drains or water courses. Dispose in a safe manner in accordance with local/national regulations.  
Ecology - waste materials : Do not allow to enter drains or water courses.

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

### 14.1. UN number

Not regulated for transport

### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not applicable  
Proper Shipping Name (IMDG) : Not applicable  
Proper Shipping Name (IATA) : Not applicable  
Proper Shipping Name (ADN) : Not applicable  
Proper Shipping Name (RID) : Not applicable

### 14.3. Transport hazard class(es)

#### ADR

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

#### IMDG

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

#### IATA

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

#### ADN

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

#### RID

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

### 14.4. Packing group

Packing group (ADR) : Not applicable  
Packing group (IMDG) : Not applicable

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according to the United Nations GHS (Rev. 5, 2013).

Packing group (IATA) : Not applicable  
Packing group (ADN) : Not applicable  
Packing group (RID) : Not applicable

### 14.5. Environmental hazards

Dangerous for the environment : No  
Marine pollutant : No  
Other information : No supplementary information available

### 14.6. Special precautions for user

#### - Overland transport

No data available

#### - Transport by sea

No data available

#### - Air transport

No data available

#### - Inland waterway transport

No data available

#### - Rail transport

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. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions  
FERTIACYL CORN is not on the REACH Candidate List  
Contains no substance on the REACH candidate list  
Contains no REACH Annex XIV substances

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

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 the United Nations GHS (Rev. 5, 2013).

Full text of R-, H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation

SDS EU (REACH Annex II)

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according to the United Nations GHS (Rev. 5, 2013).

*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  
 Product name : FERTIACTYL GZ  
 Product code : FYLGZUSA

#### 1.2. Recommended use and restrictions on use

No additional information available

#### 1.3. Supplier

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

#### 1.4. Emergency telephone number

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

Country	Official advisory body	Address	Emergency number	Comment
	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

Full text of H statements : see section 16

#### 2.2. GHS Label elements, including precautionary statements

##### GHS-US labelling

Hazard pictograms (GHS-US) :



GHS07

Signal word (GHS-US) : Warning

Hazard statements (GHS-US) : H315 - Causes skin irritation  
 H319 - Causes serious eye irritation

Precautionary statements (GHS-US) : P280 - Wear face shield, protective clothing, protective gloves  
 P302+P352 - If on skin: Wash with plenty of soap and water  
 P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 P337+P313 - If eye irritation persists: Get medical advice/attention

#### 2.3. Other hazards which do not result in classification

No additional information available

#### 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 hydroxide	(CAS-No.) 1310-58-3	1 - 5	Acute Tox. 4 (Oral), H302 Skin Corr. 1A, H314

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 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. 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. If swallowed, seek medical advice immediately and show this container or label.

#### 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<sub>2</sub>), 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 : Non oxidizing material according to EC criteria.
- Explosion hazard : Not explosive.
- Reactivity : Reacts with : strong oxidants and strong acids.

#### 5.3. Special protective equipment and precautions for fire-fighters

- 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. 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. 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 vapours. Evacuate unnecessary personnel. Mark the danger area. Ventilate spillage area. Keep upwind. Only qualified personnel equipped with suitable protective equipment may intervene.

##### 6.1.2. For emergency responders

- Protective equipment : For further information refer to section 8: "Exposure controls/personal protection".
- Emergency procedures : Stop leak if safe to do so. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. Evacuate unnecessary personnel.

#### 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 : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
- Methods for cleaning up : Pump up the product into a suitably labelled spare container. Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal.

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

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 : Provide good ventilation in process area to prevent formation of vapour. Do not breathe vapours. 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. Remove contaminated clothes. Separate working clothes from town clothes. Launder separately. 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 : Protect from sunlight. Store in a well-ventilated place. Store closed containers with closure in upper position. Keep out of reach of children.

Incompatible products : Refer to the detailed list of incompatible materials in section 10 Stability/Reactivity.

Storage temperature : 4 - 30 °C Store at ambient temperature. Protect from freezing.

Heat and ignition sources : 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

#### potassium hydroxide (1310-58-3)

ACGIH	ACGIH STEL (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
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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

#### Personal protective equipment:

Gloves. Safety glasses.

#### Materials for protective clothing:

Wear suitable protective clothing

#### Hand protection:

In case of repeated or prolonged contact wear gloves. Chemical resistant gloves (according to European standard NF EN 374 or equivalent)

Type	Material	Permeation	Thickness (mm)	Penetration
Disposable gloves, Reusable gloves	Nitrile rubber (NBR), Butyl 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. EN 166

Type	Use	Characteristics
Safety glasses	Droplet	With side shields

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### Skin and body protection:

Wear suitable protective clothing

### Respiratory protection:

Do not breathe aerosol. Vapours or aerosols :  
Dust/aerosol mask with filter type P2



### 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	: Liquid
Colour	: brown
Odour	: characteristic
Odour threshold	: No data available
pH	: 11
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	: 1.21 kg/l
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	: Product is not 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

Reacts with : strong oxidants and strong acids.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Heat. Direct sunlight. Gel.

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

### 10.5. Incompatible materials

Strong acids. Oxidation agents.

### 10.6. Hazardous decomposition products

Sulphur dioxide. 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)

FERTIACTYL GZ	
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 hydroxide (1310-58-3)	
LD50 oral rat	333 (333 - 388) mg/l (OECD 425 method)
ATE US (oral)	500.000 mg/kg bodyweight

Skin corrosion/irritation : Causes skin irritation.  
pH: 11

Serious eye damage/irritation : Causes serious eye irritation.  
pH: 11

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 : 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

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

FERTIACTYL GZ	
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)

FERTIACTYL GZ	
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

# FERTIACTYL GZ

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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)

### 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.

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

#### potassium hydroxide (1310-58-3)

NOEC (acute)	24h 28 mg/l OECD SIDS
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#### 12.2. Persistence and degradability

##### FERTIACTYL GZ

Persistence and degradability	Not established.
-------------------------------	------------------

##### potassium hydroxide (1310-58-3)

Persistence and degradability	Not established.
-------------------------------	------------------

#### 12.3. Bioaccumulative potential

##### FERTIACTYL GZ

Bioaccumulative potential	Not established. Bioaccumulation unlikely.
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##### potassium hydroxide (1310-58-3)

Bioaccumulative potential	Low bioaccumulation potential.
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#### 12.4. Mobility in soil

##### FERTIACTYL GZ

Ecology - soil	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.
----------------	--

#### 12.5. Other adverse effects

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

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

GWPmix comment : No known effects from this product.

### SECTION 13: Disposal considerations

#### 13.1. Disposal methods

Waste treatment methods : Dispose of in accordance with relevant local regulations. Remove to an authorized waste treatment plant.

Sewage disposal recommendations : Do not allow to enter drains or water courses.

Product/Packaging disposal recommendations : Do not allow to enter drains or water courses. Dispose in a safe manner in accordance with local/national regulations.

### SECTION 14: Transport information

#### Department of Transportation (DOT)

In accordance with DOT

Other information : No supplementary information available.

#### Transportation of Dangerous Goods

#### Transport by sea

# FERTIACTYL GZ

## Safety Data Sheet

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### Air transport

## 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

This product or mixture is not known to 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.

potassium hydroxide (1310-58-3)	
CERCLA RQ	1000 lb
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard

### 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

Revision date : 07/10/2017

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:

H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H319	Causes serious eye irritation

Abbreviations and acronyms:

# FERTIACTYL GZ

## Safety Data Sheet

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ATE	Acute Toxicity Estimate
LC50	Median lethal concentration
DNEL	Derived-No Effect Level
EC50	Median effective concentration
SDS	Safety Data Sheet
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LD50	Median lethal dose
NOAEL	No-Observed Adverse Effect Level
OECD	Organisation for Economic Co-operation and Development
vPvB	Very Persistent and Very Bioaccumulative

NFPA health hazard

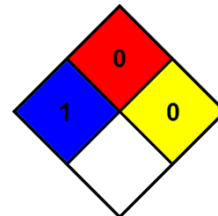
: 1 - Materials that, under emergency conditions, can cause significant irritation.

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

: 1 Slight Hazard - Irritation or minor reversible injury possible

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

: B  
B - Safety glasses, Gloves

Indication of changes:

Section	Changed item	Change	Comments
	Display TSCA summary in 15.1	Added	
	Display SARA 313 summary in 15.1	Added	
	Display California Proposition 65 summary in 15.3	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	
	Reason for no classification	Added	
	Reason for no classification	Added	
	NFPA reactivity	Added	
	NFPA health hazard	Added	
	NFPA fire hazard	Added	
	Additional information	Added	
	Additional information	Added	
	Additional information	Added	
	Personal protection	Added	
	Physical	Added	
	Health	Added	



# FERTIACTYL GZ

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	Flammability	Added	
	Protective equipment	Added	
	Emergency procedures	Added	
	Protective equipment	Modified	
	Possibility of hazardous reactions	Added	
	Other medical advice or treatment	Added	
	Precautionary statements (GHS-US)	Added	
	Signal word (GHS-US)	Added	
	Hazard pictograms (GHS-US)	Added	
	Hazard statements (GHS-US)	Added	
	Supersedes	Added	
	Revision date	Added	
	Other information	Added	
	Methods for cleaning up	Modified	
	For containment	Modified	
	Environmental precautions	Modified	
	Emergency procedures	Added	
	General measures	Modified	
	Additional information	Modified	
	Reference to other sections (8, 13)	Modified	
	Other adverse effects	Modified	
	Incompatible materials	Modified	
	Hazardous decomposition products	Modified	
	Conditions to avoid	Modified	
	Additional information	Modified	
	Symptoms/effects	Added	
	First-aid measures after inhalation	Modified	
	First-aid measures general	Modified	
	First-aid measures after ingestion	Added	
	First-aid measures after eye contact	Modified	
	First-aid measures after skin contact	Modified	
	Product form	Added	
	Oxidising properties	Added	
	Explosive properties	Modified	
	Density	Modified	
	pH	Modified	
2.1	GHS-US classification	Added	
3	Composition/information on ingredients	Modified	
5.1	Unsuitable extinguishing media	Added	
5.1	Suitable extinguishing media	Modified	
5.2	Fire hazard	Modified	
5.2	Explosion hazard	Modified	
5.3	Other information	Modified	
5.3	Protection during firefighting	Modified	
7.1	Hygiene measures	Modified	
7.1	Precautions for safe handling	Added	
7.2	Technical measures	Modified	
7.2	Storage conditions	Added	
7.2	Storage area	Removed	
7.2	Heat and ignition sources	Added	
7.2	Storage temperature	Modified	

# FERTIACTYL GZ

## Safety Data Sheet

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7.2	Incompatible products	Modified	
7.2	Incompatible materials	Removed	
7.2	Prohibitions on mixed storage	Added	
7.2	Special rules on packaging	Modified	
8.2	Hand protection	Modified	
8.2	Eye protection	Modified	
8.2	Other information	Added	
8.2	Environmental exposure controls	Added	
8.2	Appropriate engineering controls	Modified	
8.2	Materials for protective clothing	Added	
8.2	Skin and body protection	Modified	
12.1	Ecology - water	Modified	
12.1	Ecology - general	Modified	
12.2	Persistence and degradability	Modified	
12.3	Bioaccumulative potential	Modified	
12.4	Ecology - soil	Modified	
16	Abbreviations and acronyms	Added	
16	Data sources	Added	
16	Other information	Removed	

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 of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Fertilizer  
 Trade name : FERTIACTYL RECORD  
 Name : FERTIACTYL RECORD  
 Generic name : FERTIACTYL RECORD  
 Product code : FYLRECUSA  
 Type of product : Mixture  
 Product group : Mixture

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

##### 1.2.1. Relevant identified uses

Main use category : Professional use  
 Use of the substance/mixture : Fertilizer

##### 1.2.2. Uses advised against

No additional information available

#### 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](mailto: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: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Security closing plug for children : No  
 Tactile warning : No

#### 2.3. Other hazards

No additional information available

### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Not applicable

#### 3.2. Mixture

This mixture does not contain any substances to be mentioned according to the criteria of section 3.2 of REACH annex II

# FERTIACTYL RECORD

## Safety Data Sheet

according to the United Nations GHS (Rev. 5, 2013)

### 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	: Remove victim to fresh air. If you feel unwell, seek medical advice.
First-aid measures after skin contact	: Wash with water and soap as a precaution. If skin irritation occurs: Get medical advice/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 ophthalmologist if irritation persists.
First-aid measures after ingestion	: If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting without medical advice. Get medical advice/attention if you feel unwell.

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

No additional information available

#### 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 : Foam. Carbon dioxide (CO<sub>2</sub>).

#### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : May release hazardous fumes.

#### 5.3. Advice for firefighters

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

Protective equipment : Wear suitable protective clothing.

##### 6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters.

#### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Clean up any spills as soon as possible, using an absorbent material to collect it.

#### 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 : Handle in accordance with good industrial hygiene and safety practice. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product.

Hygiene measures : If on skin, take off contaminated clothing. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

#### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in dry protected location to prevent any moisture contact. Keep only in the original container. Keep container closed when not in use.

Incompatible materials : acids. Refer to section 10 on incompatible materials.

#### 7.3. Specific end use(s)

SECTION 1.2.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

No additional information available

#### 8.2. Exposure controls

Personal protective equipment : Protective clothing. Gloves. Safety glasses.

# FERTIACTYL RECORD

## Safety Data Sheet

according to the United Nations GHS (Rev. 5, 2013)

Hand protection	: Wear suitable gloves
Eye protection	: Safety glasses
Skin and body protection	: Wear suitable protective clothing



### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: light brown.
Odour	: characteristic.
Odour threshold	: No data available
pH	: 9
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: 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	: 1557.744 kg/m <sup>3</sup>
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available.
Oxidising properties	: No data available
Explosive limits	: No data available

#### 9.2. Other information

No additional information available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No data / information available.

#### 10.2. Chemical stability

Stable under normal conditions of use.

#### 10.3. Possibility of hazardous reactions

No data / information available.

#### 10.4. Conditions to avoid

Heat. Freezing. Moisture.

#### 10.5. Incompatible materials

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

#### 10.6. Hazardous decomposition products

Sulphur dioxide. Carbon dioxide.

# FERTIACTYL RECORD

## Safety Data Sheet

according to the United Nations GHS (Rev. 5, 2013)

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute 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
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: 9
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: 9
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
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
Specific target organ toxicity (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
Specific target organ toxicity (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

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general	: No study has been carried out for the moment on this mixture.
Ecology - water	: Based on available data, the classification criteria are not met.

#### 12.2. Persistence and degradability

##### FERTIACTYL RECORD

Persistence and degradability	Readily biodegradable. No study has been carried out for the moment on this mixture.
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#### 12.3. Bioaccumulative potential

##### FERTIACTYL RECORD

Bioaccumulative potential	Bioaccumulation unlikely.
---------------------------	---------------------------

#### 12.4. Mobility in soil

##### FERTIACTYL RECORD

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

#### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Other adverse effects

Other adverse effects	: None known.
Additional information	: No data / information available

# FERTIACTYL RECORD

## Safety Data Sheet

according to the United Nations GHS (Rev. 5, 2013)

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Waste treatment methods : Dispose in a safe manner in accordance with local/national regulations. Dispose of this material and its container to hazardous or special waste collection point.

### SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

#### 14.1. UN number

Not regulated for transport

#### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not applicable  
Proper Shipping Name (IMDG) : Not applicable  
Proper Shipping Name (IATA) : Not applicable  
Proper Shipping Name (ADN) : Not applicable  
Proper Shipping Name (RID) : Not applicable

#### 14.3. Transport hazard class(es)

##### ADR

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

##### IMDG

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

##### IATA

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

##### ADN

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

##### RID

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

#### 14.4. Packing group

Packing group (ADR) : Not applicable  
Packing group (IMDG) : Not applicable  
Packing group (IATA) : Not applicable  
Packing group (ADN) : Not applicable  
Packing group (RID) : Not applicable

#### 14.5. Environmental hazards

Dangerous for the environment : No  
Marine pollutant : No  
Other information : No supplementary information available

#### 14.6. Special precautions for user

##### - Overland transport

No data available

##### - Transport by sea

No data available

##### - Air transport

No data available

##### - Inland waterway transport

No data available

##### - Rail transport

No data available

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

Not applicable

# FERTIACTYL RECORD

## Safety Data Sheet

according to the United Nations GHS (Rev. 5, 2013)

### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

##### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

FERTIACTYL RECORD is not on the REACH Candidate List

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Other information, restriction and prohibition regulations : All the constituents of this preparation are registered in the EINECS inventory or in the ELINCS list.

##### 15.1.2. National regulations

Ensure all national/local regulations are observed

#### 15.2. Chemical safety assessment

No additional information available

### SECTION 16: Other information

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 the United Nations GHS (Rev. 5, 2013).

SDS EU (REACH Annex II)

*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 of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Fertilizer  
 Trade name : FERTIACTYL RhiZn :  
 Name : FERTIACTYL RhiZn :  
 Generic name : FERTIACTYL RhiZn:  
 Product code : FYLRIZNUSA  
 Product group : Mixture

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

##### 1.2.1. Relevant identified uses

Main use category : Professional use  
 Use of the substance/mixture : Fertilizer

##### 1.2.2. Uses advised against

No additional information available

#### 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](mailto: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: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin corrosion/irritation, Category 2 H315  
 Serious eye damage/eye irritation, Category 2 H319  
 Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation H335

Full text of H statements : see section 16

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS07

Signal word (CLP) : Warning  
 Hazardous ingredients : Urea  
 Hazard statements (CLP) : H315 - Causes skin irritation  
 H319 - Causes serious eye irritation  
 H335 - May cause respiratory irritation  
 Precautionary statements (CLP) : P271 - Use only outdoors or in a well-ventilated area  
 P280 - Wear face protection, protective clothing, protective gloves

# FERTIACTYL RhiZn

## Safety Data Sheet

according to the United Nations GHS (Rev. 5, 2013).

P302+P352 - IF ON SKIN: Wash with plenty of water  
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing  
P305+P351+P338+P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a doctor, a POISON CENTER  
P337+P313 - If eye irritation persists: Get medical advice/attention

Security closing plug for children : No  
Tactile warning : No

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Not applicable

### 3.2. Mixture

Name	Product identifier	%	Classification according to Directive 67/548/EEC	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Urea	(CAS No) 57-13-6 (EC no) 200-315-5 (REACH-no) 01-2119463277-33	10 - 40	Not classified	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
potassium hydroxide, caustic potash	(CAS No) 1310-58-3 (EC no) 215-181-3 (EC index no) 019-002-00-8	1 - 2	Not classified	Acute Tox. 4 (Oral), H302 Skin Corr. 1A, H314

#### Specific concentration limits:

Name	Product identifier	Specific concentration limits: DSD/DPD	Specific concentration limits: CLP
potassium hydroxide, caustic potash	(CAS No) 1310-58-3 (EC no) 215-181-3 (EC index no) 019-002-00-8	(0.5 =< C < 2) Xi;R36/38 (2 =< C < 5) C;R34 (C >= 5) C;R35	(0.5 =< C < 2) Eye Irrit. 2, H319 (0.5 =< C < 2) Skin Irrit. 2, H315 (2 =< C < 5) Skin Corr. 1B, H314 (C >= 5) Skin Corr. 1A, H314

Full text of R- 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 : Call a POISON CENTER or doctor/physician. Move the affected person away from the contaminated area and into the fresh air.  
First-aid measures after skin contact : Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Get medical advice/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.  
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, 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, carbon dioxide (CO<sub>2</sub>), powder and foam.  
Unsuitable extinguishing media : None known.

### 5.2. Special hazards arising from the substance or mixture

Fire hazard : Not combustible. By thermal decomposition, product may emit oxides of sulfur, phosphorus oxides (eg P<sub>2</sub>O<sub>5</sub>), corrosive and toxic, ammonia.  
Explosion hazard : Not explosive.  
Reactivity in case of fire : Reacts vigorously with strong oxidizers and acids.  
Hazardous decomposition products in case of fire : Nitrous fumes. Carbon dioxide.

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according to the United Nations GHS (Rev. 5, 2013).

### 5.3. Advice for firefighters

Precautionary measures fire	: Comply with the safety procedures.
Firefighting instructions	: All fire-fighting personnel must wear safety suits. Use extinguishing media appropriate for surrounding fire.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.
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 : Avoid contact with skin and eyes. Where contact with eyes or skin is likely, wear suitable protection. Concerning personal protective equipment to use, see item 8.

#### 6.1.1. For non-emergency personnel

Protective equipment : Equip cleanup crew with proper protection.

#### 6.1.2. For emergency responders

No additional information available

### 6.2. Environmental precautions

Prevent entry to sewers and public waters.

### 6.3. Methods and material for containment and cleaning up

For containment	: Absorb remaining liquid with sand or inert absorbent and remove to safe place.
Methods for cleaning up	: Wash away remainder with plenty of water. Recuperate the compound in an appropriate container for evacuation and disposal.

### 6.4. Reference to other sections

SECTION 8. SECTION 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling	: Avoid contact with skin, eyes and clothing. Ensure that there is a suitable ventilation system. Wear suitable protective clothing, gloves and eye or face protection.
Hygiene measures	: Handle in accordance with good industrial hygiene and safety procedures. Always wash hands after handling the product. If on skin, take off contaminated clothing. Do not eat, drink or smoke in areas where product is used.

### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Handle and open container with care.
Storage conditions	: Keep away from food, drink and animal feeding stuffs.
Incompatible products	: Strong acids. Strong oxidizing agents.
Incompatible materials	: Refer to section 10 on incompatible materials.
Storage temperature	: 4 - 30 °C
Storage area	: Store at ambient temperature. Keep out of frost. Store away from heat/moisture. Store in a dry area. Store in a well-ventilated place.
Special rules on packaging	: Store in original container.

### 7.3. Specific end use(s)

Fertilizer. Agriculture.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### potassium hydroxide, caustic potash (1310-58-3)

DNEL/DMEL (Workers)

Long-term - systemic effects, inhalation	1 mg/m <sup>3</sup>
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### 8.2. Exposure controls

Appropriate engineering controls	: Ensure adequate ventilation.
Personal protective equipment	: Gloves. Safety glasses.
Hand protection	: Wear suitable gloves resistant to chemical penetration. Latex gloves. butyl rubber gloves

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves, Reusable gloves	Butyl rubber, Latex				EN 374

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Eye protection : (according to standard EN 166). Safety glasses with side shields

Type	Use	Characteristics	Standard
Safety goggles		With side shields	EN 166

Skin and body protection : Use chemically protective clothing

Respiratory protection : Dust / anti-aerosol filter type P2 (according to standard EN 143)

Device	Filter type	Condition	Standard
Aerosol mask	Type P2		EN 143



Other information : Handle in accordance with good industrial hygiene and safety practice. Wash hands after working with the product. 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	: Liquid
Colour	: Black.
Odour	: characteristic.
Odour threshold	: No data available
pH	: 10.8
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: 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	: 1270 kg/m <sup>3</sup>
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available.
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reacts with : strong oxidants and strong acids.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

None under normal use.

### 10.4. Conditions to avoid

All heat sources, including direct sunlight. Moisture. Freezing.

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### 10.5. Incompatible materials

Oxidation agents. Strong acids.

### 10.6. Hazardous decomposition products

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)  
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

#### Urea (57-13-6)

LD50 oral rat	> 2000 mg/kg
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Skin corrosion/irritation : Causes skin irritation.  
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: 10.8

Serious eye damage/irritation : Causes serious eye irritation.  
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: 10.8

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

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

Specific target organ toxicity (single exposure) : May cause respiratory 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

Specific target organ toxicity (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

#### Urea (57-13-6)

NOAEL (oral, rat, 90 days)	2250 mg/kg bodyweight/day
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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

## 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.

Ecology - water : May cause eutrophication at very low concentration. Do not allow to enter drains or water courses.

#### Urea (57-13-6)

LC50 fish 1	> 6810 mg/l
EC50 Daphnia 1	> 10000 mg/l

### 12.2. Persistence and degradability

#### FERTIACTYL RhiZn

Persistence and degradability	No study has been carried out for the moment on this mixture.
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according to the United Nations GHS (Rev. 5, 2013).

Urea (57-13-6)	
Biodegradation	Readily biodegradable

### 12.3. Bioaccumulative potential

FERTIACTYL RhiZn	
Bioaccumulative potential	No study has been carried out for the moment on this mixture.

Urea (57-13-6)	
Log Pow	-1.73 (20°C)
Bioaccumulative potential	Low bioaccumulation potential.

### 12.4. Mobility in soil

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

Urea (57-13-6)	
Log Koc	-1.43 - -1.19

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

Other adverse effects : May cause pH changes in aqueous ecological systems. May cause eutrophication at very low concentration.  
Additional information : No other effects known

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Dispose of this material and its container to hazardous or special waste collection point. Dispose in a safe manner in accordance with local/national regulations.  
Sewage disposal recommendations : Do not allow to enter drains or water courses.  
Waste disposal recommendations : Do not allow to enter drains or water courses. Dispose in a safe manner in accordance with local/national regulations.  
Ecology - waste materials : Do not allow to enter drains or water courses.

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

### 14.1. UN number

Not regulated for transport

### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not applicable  
Proper Shipping Name (IMDG) : Not applicable  
Proper Shipping Name (IATA) : Not applicable  
Proper Shipping Name (ADN) : Not applicable  
Proper Shipping Name (RID) : Not applicable

### 14.3. Transport hazard class(es)

#### ADR

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

#### IMDG

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

#### IATA

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

#### ADN

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

#### RID

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

### 14.4. Packing group

Packing group (ADR) : Not applicable  
Packing group (IMDG) : Not applicable

# FERTIACTYL RhiZn

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according to the United Nations GHS (Rev. 5, 2013).

Packing group (IATA) : Not applicable  
Packing group (ADN) : Not applicable  
Packing group (RID) : Not applicable

### 14.5. Environmental hazards

Dangerous for the environment : No  
Marine pollutant : No  
Other information : No supplementary information available

### 14.6. Special precautions for user

#### - Overland transport

No data available

#### - Transport by sea

No data available

#### - Air transport

No data available

#### - Inland waterway transport

No data available

#### - Rail transport

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. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions  
FERTIACTYL CORN is not on the REACH Candidate List  
Contains no substance on the REACH candidate list  
Contains no REACH Annex XIV substances

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

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 the United Nations GHS (Rev. 5, 2013).

Full text of R-, H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation

SDS EU (REACH Annex II)

# FERTIACTYL RhiZn

## Safety Data Sheet

according to the United Nations GHS (Rev. 5, 2013).

*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*