SAFETY DATA SHEET

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SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Name **Exacote (CAN/Urea/AS)**

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

Recommended Use Fertilisers.
Uses advised against All other uses.

1.3. Details of the supplier of the safety data sheet

OCI Nitrogen BV
Mijnweg 1
P.O. Box 601
6160 AP Geleen, The Netherlands
Tel: +31 (0) 46 7020111
www.ocinitrogen.com

info.agro@ocinitrogen.com

1.4. Emergency telephone number

UK National Health Service (NHS) call 111 or, in life-threatening emergencies, call 999

WAL National Health Service (NHS) call 0845 46 47

IE National Poisons Information Centre
+353 1 809 2566 or +353 1 837 9964 (only for healthcare professionals)

Manufacturer: Alert & Care Centre Chemelot (Geleen, The Netherlands)
+31 46 4765555 (24/7)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (1272/2008/EC)
Not classified.

For the full text of the H-Statements mentioned in this section, see Section 16.

2.2. Label elements

None.

2.3 Other hazards

None known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Product containing multiple components:

Component 1: Ammonium sulfate (CAS# 7783-20-2, Non-hazardous substance, 20-80%)

Component 2: Coated Urea (CAS# 57-13-6, Non-hazardous substance, 20-80%)

Component 3: Nutramon (Mixture of Ammonium nitrate and Dolomite, Non-hazardous mixture, 20-58%)

Chemical Name	EC-No	CAS-No	Weight %	Classification (1272/2008/EC)	REACH Registration Number
Ammonium nitrate	229-347-8	6484-52-2	~78	Oxid. Solid 3 H272 Eye Irrit. 2 H319 80%<C≤100%	01-2119490981-27
Calcium magnesium-carbonate (Dolomite)	240-440-2	16389-88-1	~21	-	Not applicable

For the full text of the H-Statements mentioned in this section, see Section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General advice When symptoms persist or in all cases of doubt seek medical advice.

Eye contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention immediately if symptoms occur.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention immediately if symptoms occur.

Ingestion Rinse mouth. Drink 1 or 2 glasses of water. Do not induce vomiting without medical advice. Get medical attention immediately if symptoms occur.

Inhalation Move to fresh air. Get medical attention immediately if symptoms occur.
Under fire conditions: Symptoms may be delayed (48 hours). Immediate medical attention is required.

Protection of first-aiders Use personal protective equipment. Avoid contact with skin, eyes and clothing.

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

Main symptoms No acute and delayed symptoms and effects are observed. Inhalation of dust can cause irritation to the respiratory system.
Under fire conditions: Effects of contact or inhalation may be delayed (Dyspnea (breathing difficulty)).

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

Notes to physician Treat symptomatically. Large amounts Consult a specialist. Under fire conditions: Symptoms may be delayed (48 hours).

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media Water.

Unsuitable Extinguishing Media Do not use: All other extinguishing media (For example: Dry powder, Foam, Sand). Do not attempt to smother the fire.

5.2. Special hazards arising from the substance or mixture

Special Hazard Hazardous decomposition products formed under fire conditions: NH_4NO_3 (May intensify fire; oxidizer), Nitrogen oxides (NO_x), Sulphur oxides, Amines, Ammonia. Incompatible materials: Oil, Combustible materials. Do not allow run-off from fire fighting to enter drains or water courses.

5.3. Advice for firefighters

Special protective equipment for fire-fighters Wear self-contained breathing apparatus and protective suit. Ventilate the area. Avoid breathing vapours, mist or gas.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate non-essential personnel. Do not breathe dust. Avoid dust formation. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Use personal protective equipment.

6.2. Environmental precautions

Should not be released uncontrolled into the environment.

6.3 Methods and material for containment and cleaning up

Sweep up and shovel into suitable containers for disposal. Avoid dust formation. Do not mix with sawdust and other combustible or organic substances. Dilute any contaminated or fine grained fertilizer with inert materials such as limestone/dolomiet, gypsum, sand or dissolve in water.

6.4. Reference to other sections

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid dust formation. Unnecessary exposure to the atmosphere (hygroscopic product). Do not breathe dust. Avoid contact with: Combustible materials (Oil, Grease, Fuel), Incompatible materials (See section 10.5). Wear personal protective equipment. Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labelled containers. Keep away from direct sunlight. Keep away from heat and sources of ignition, Combustible material, Organic materials, Incompatible materials (See section 10.5). Packaging: PVC, Polyethylene, Steel (None: Aluminium, Zinc, Copper).

7.3. Specific end use(s)

Exposure scenario Not available.

Other information Not available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure Limits Contains no substances with occupational exposure limit values.

Biological Limit Values Not established.

Recommended monitoring procedures No information available.

Derived No Effect Level (DNEL)

Chemical Name	Worker - inhalative, long-term - systemic	Worker - dermal, long-term - systemic	Worker - inhalative, short-term - systemic	Worker - dermal, short-term - systemic
Ammonium sulfate	11.167 mg/m³	42.667 mg/kg bw/d		
Urea	292 mg/m³	580 mg/kg bw/d		
Ammonium nitrate	36 mg/m³	5.12 mg/kg bw/day		

Chemical Name	Consumer - inhalative, long-term - systemic	Consumer - dermal, long-term - systemic	Consumer - oral, long-term - systemic	Consumer - inhalative, short-term - systemic	Consumer - dermal, short-term - local and systemic
Ammonium sulfate	1.667 mg/m³	12.8 mg/kg bw/day	6.4 mg/kg bw/day		
Ammonium nitrate	8.9 mg/m³	2.56 mg/kg bw/day	2.56 mg/kg bw/day		

Predicted No Effect Concentration (PNEC)

Chemical Name	Freshwater	Marine water	Intermittent release	Sewage treatment plant	Freshwater sediment	Marine sediment	Soil	Oral
Ammonium sulfate	0.312 mg/L	0.0312 mg/L	0.53 mg/L	16.18 mg/L	0.063 mg/kg dw		62.6 mg/kg dw	
Urea	0.47 mg/L	0.047 mg/L						
Ammonium nitrate				18 mg/L				

8.2. Exposure controls

Appropriate engineering controls Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye protection Safety glasses with side-shields.

Hand Protection Protective gloves. Butyl rubber, Neoprene, Leather gloves. Glove thickness: 5 mil. Break through time: 4 - 8 hours.

Skin and body protection Long sleeved clothing.

Respiratory protection In case of insufficient ventilation wear suitable respiratory equipment (EN 143, EN 149).

Recommended Filter Type P2

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing before re-use.

Environmental Exposure Controls Should not be released uncontrolled into the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state @20°C	Solid
Appearance	Granules
Colour	Various
Odour	Odourless
pH	No information available
Melting/freezing point	No information available
Boiling point/boiling range	Decomposes
Flash point	Not applicable (Not combustible)
Evaporation rate	No information available
Flammability (solid, gas)	No information available
Flammability Limits in Air	No information available
Vapour pressure	No information available
Vapour density	No information available
Relative density	No information available
Solubility	
Water solubility	No information available
Partition Coefficient (n-octanol/water)	No information available
Autoignition temperature	No information available
Decomposition temperature	>200 °C
Viscosity, dynamic	Not applicable
Oxidising properties	Not oxidizing
Explosive properties	The fertilizer has a high resistance to detonation. This resistance is decreased by the presence of contaminants and/or high temperatures. Heating under strong confinement (e.g. in ducts) may lead to a violent reaction or explosion, especially if there is contamination by some of the substances mentioned under section 10.

9.2 Other information

No information available.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Stable under recommended storage conditions.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Hazardous decomposition products formed under fire conditions.

10.4. Conditions to avoid

To avoid thermal decomposition, do not overheat. Keep away from direct sunlight, Heat, flames and sparks. Unnecessary exposure to the atmosphere (hygroscopic product).

10.5. Incompatible materials

Combustible materials, Reducing agents, Oxidizing agents, Acids, Alkalis, Sulphur, Chlorates, Chlorine, Chromates, Nitrites, permanganates, powdered metal, Zinc, Copper, Nickel, Cobalt compounds, Aluminium, Calcium hypochlorite, Sodium hypochlorite.

10.6. Hazardous decomposition products

Hazardous decomposition products formed under fire conditions: NH_4NO_3 (May intensify fire; oxidizer), Nitrogen oxides (NO_x), Sulphur oxides, Amines, Ammonia.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity

Ingestion No known effect.
Skin contact No known effect.
Inhalation No known effect.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ammonium sulfate	4250 mg/kg (Rat, OECD 401) >2000 mg/kg (Rat, OECD 423)	>2000 mg/kg bw (Rat, OECD 434)	3.6 mg/m³; MMAD 0.4 µm (Rat, OECD 433, 4h)
Ammonium nitrate	2950 mg/kg (Rat, OECD 401)	> 5000 mg/kg (Rat, OECD 402)	>88.8 mg/L (Rat, 4h)

Skin corrosion/irritation Non-irritating.

Serious eye damage/irritation Non-irritating. Product classification based on report "Assessment of ammonium nitrate as eye irritant for classification purposes" (Fertilizers Europe, 14 July 2011).

Respiratory or skin sensitisation No known effect.

Germ cell mutagenicity Not known to cause heritable genetic damage.

Carcinogenicity Contains no ingredient listed as a carcinogen.

Reproductive toxicity Not known to cause birth defects or have a deleterious effect on a developing fetus. Not known to adversely affect reproductive functions and organs.

STOT-single exposure No known effect.

STOT-repeated exposure No known effect.

Aspiration hazard No known effect.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Contains no substances known to be hazardous for the environment.

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
Ammonium sulfate	EC50: 1605 mg/L, Chlorella vulgaris, 5d (read across data)	LC50: 53 mg/L, Oncorhynchus mykiss 96h LC50: 57.2 mg/L, Prosopium williamsoni 96h EC10: 5.29 mg/L, Lepomis macrochirus, 30d	EC50: 1618 mg/L., activated sludge, 30 min.	EC50: 121.7 mg/L, Ceriodaphnia acanthine, 48h EC50: 169 mg/L Daphnia magna, 48h EC10: 3.12 mg/L, Hyalella Azteca, 10w
Urea		LC50: 10000 mg/l, Leuciscus idus melanotus, 48h		EC50: >10000 mg/l, Daphnia magna, 24 h
Ammonium nitrate	EC50: >1700 mg/L, benthic diatoms, 10d	LC50: 447 mg/L, Cyprinus carpio L, 48h	EC50: >1000 mg/L, 3h	EC50: 490 mg/L, (300 mg NO_3/L), Daphnia Magna, 48h

12.2. Persistence and degradability

Readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulation is unlikely.

Chemical Name	Log P_{ow}	Bioconcentration factor (BCF)
Ammonium sulfate	-5.1	
Urea	-1.73	
Ammonium nitrate	-3.1	

12.4. Mobility in soil

Not expected to adsorb on soil.

12.5. Results of PBT and vPvB assessment

This product is not considered to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB).

12.6. Other adverse effects

No information available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from residues / unused products

Where possible recycling is preferred to disposal. If recycling is not practicable, dispose of in compliance with local regulations. Should not be released uncontrolled into the environment.

Contaminated packaging

Where possible recycling is preferred to disposal (Only if packaging material is designed or intended for reuse). Clean packaging before reuse. If recycling is not practicable, dispose of in compliance with local regulations. Avoid release to the environment.

SECTION 14: TRANSPORT INFORMATION

According to: ADR, RID, ADN, IMDG, IATA/ICAO.

14.1. UN number

Not regulated.

14.2. UN proper shipping name

Not regulated.

14.3. Transport hazard class(es)

Not regulated.

14.4. Packing group

Not applicable.

14.5 Environmental hazards

Not applicable.

14.6 Special precautions for user

No information available

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

No information available

SECTION 15: REGULATORY INFORMATION

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

Restrictions on use Suspicious transactions, sales to unlicensed third parties and theft should be reported to the police immediately. EU - Explosives Precursors Marketing and Use (98/2013/EC).

Europe

Component	EU - REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	EU - REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	EU - REACH (1907/2006) - Article 59(1) - Candidate List of Substances of Very High Concern for Authorisation	EU - REACH (1907/2006) - Potential Substances of Very High Concern
Ammonium nitrate 6484-52-2 (~78)	Not listed	Entry 58	Not listed	Not listed

Component	Rotterdam Convention on Prior Inform Consent (PIC)	EU - Ozone Depleting Substances Regulations (2037/2000/EC)	EU - Explosives Precursors Marketing and Use (98/2013/EC)
Ammonium nitrate 6484-52-2 (~78)	Not listed	Not listed	Present (in concentration of 16% by weight of Nitrogen in relation to Ammonium nitrate or higher)

Component	EU - Seveso III Directive (2012/18/EC) - Qualifying Quantities of Dangerous Substances - Lower-Tier Requirements	EU - Seveso III Directive (2012/18/EC) - Qualifying Quantities of Dangerous Substances - Higher-Tier Requirements
Ammonium nitrate 6484-52-2 (~78)	350 tonne (technical grade; including aqueous ammonium nitrate solutions in which the concentration of ammonium nitrate is >80% by weight) 1250 tonne (this applies to straight Ammonium nitrate-based compound/fertilizers which fulfil the requirements of Annex III-2 to Regulation EC/2003/2003; this applies to straight Ammonium nitrate-based fertilizers in which the Nitrogen content as a result of Ammonium nitrate is (a) >24.5% by weight, except for mixtures of straight Ammonium nitrate-based fertilizers with dolomite, limestone and/or calcium carbonate with a purity of >=90%, (b) >15.75% by weight for mixtures of Ammonium nitrate and Ammonium sulphate or (c) >28% by weight for mixtures of straight Ammonium nitrate-based fertilizers with dolomite, limestone and/or Calcium carbonate with a purity of >=90%)	2500 tonne (technical grade; including aqueous ammonium nitrate solutions in which the concentration of ammonium nitrate is >80% by weight) 5000 tonne (this applies to straight Ammonium nitrate-based compound/fertilizers which fulfil the requirements of Annex III-2 to Regulation EC/2003/2003; this applies to straight Ammonium nitrate-based fertilizers in which the Nitrogen content as a result of Ammonium nitrate is (a) >24.5% by weight, except for mixtures of straight Ammonium nitrate-based fertilizers with dolomite, limestone and/or calcium carbonate with a purity of >=90%, (b) >15.75% by weight for mixtures of Ammonium nitrate and Ammonium sulphate or (c) >28% by weight for mixtures of straight Ammonium nitrate-based fertilizers with dolomite, limestone and/or Calcium carbonate with a purity of >=90%)

National regulatory information

Component	WGK Classification (VwVwS)
Ammonium nitrate 6484-52-2 (~78)	Reg. no. 212, hazard class 1 - slightly hazardous to water

Other Regulations Regulation (EC) No 2003/2003 Relating to fertilisers.

International legislation/requirements No information available

15.2 Chemical safety assessment

Not available.

SECTION 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3
H272 - May intensify fire; oxidizer
H319 - Causes serious eye irritation

Revision Note
SDS sections updated: Emergency telephone, Toxicological information, Regulatory information.

Training Advice
Workers must be trained in the proper use and handling of this product as required under applicable regulations.

Abbreviations and acronyms
EC: European Commission
REACH: Registration, Evaluation, Authorisation and Restriction of Chemical substances
STOT: Specific Target Organ Toxicity
PBT: Persistent, Bioaccumulative, Toxic
vPvB: very Persistent and very Bioaccumulating
ADR: Accord européen relatif au transport international des marchandises Dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement concernant le transport international ferroviaire des marchandises dangereuses (Regulations for the International Transport of Dangerous Goods by Rail)
ADN: Accord européen relatif au transport international des marchandises Dangereuses par voies de Navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
IMDG: International Maritime Dangerous Goods Code
ICAO: International Civil Aviation Organization

SDS No.
OC00013 /OCEU

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