



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

July 17, 2023

Marcel Cisneros
President
UralKali Trading
3031 N Rocky Point Dr.
Suite 115
Tampa, FL 33607

Reference No. 23-0015

Dear Mr. Cisneros:

This letter is in response to your March 1, 2023, letter requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to the classification of ammonium nitrate-based fertilizer. Specifically, you request classification of your material, known by the trade name of “NS 30:7.”

Under § 173.22, it is the shipper’s responsibility to properly classify a hazardous material in accordance with classification criteria provided in the HMR prior to offering it for transportation to—or within—the United States. This Office does not normally perform this function. In accordance with Special Provision 150 of § 172.102, ammonium nitrate-based fertilizer must be classified using the procedures of the UN Manual of Tests and Criteria, Part III, Section 39, “Classification Procedure and Criteria Relating to Solid Ammonium Nitrate Based Fertilizers” (incorporated by reference, *see* § 171.7). If your material meets the composition and testing requirements described in Section 39 for classification as UN 2067, a competent authority approval is not needed for transportation. If your material does not fulfill the requirements for UN 2067, you may need to obtain a competent authority approval prior to offering it for transportation, in accordance with § 107.709.

I hope this information is helpful. Please contact us if we can be of further assistance.

Sincerely,

A handwritten signature in blue ink, appearing to read "Dirk Der Kinderen".

Dirk Der Kinderen
Chief, Standards Development Branch
Standards and Rulemaking Division

URALKALI

Patrick

23-0015

UKT CHICAGO, INC

3031 N Rocky Point Dr W, Suite 155, Tampa, FL 33607
Phone: 847-212-5715 Email: usa@uralkali-trading.com

March 1, 2023


Mr. Shane Kelley
Director, Standards and Rulemaking Division
U.S. DOT/PHMSA (PHH-10)
1200 New Jersey Avenue, SE East Building, 2nd Floor
Washington, DC 20590

Dear Shane,

Please accept our formal request for an official classification by the US DOT/PHMSA of a Russian produced fertilizer called NS 30:7. We have included the Spec Sheet and the European MSDS sheet for this product, for your reference.

We are at your disposal to provide any additional information required. Please let us know what you need in order to provide Uralkali with an official US DOT/PHMSA product classification. I can be reached via email or phone at 847-2120408 or m.cisneros@uralkali-trading.com for further discussion. We appreciate your help and consideration.

Best Regards,


Marcel Cisneros
President, UKT Chicago



MANUFACTURER'S NAME AND ADDRESS:
 KCKK Branch of Uralchem JSC in Kirovo-Chepetsk
 Pozharny Pereulok 7, Kirovo-Chepetsk
 Kirov Oblast, 613040, Russia
 Tel.: +7 (83361) 9-42-24,
 Fax: +7 (83361) 9-43-62,
 E-mail: kckk@uralchem.com

NS 30:7

URALCHEM's innovative product.
 Perfectly balanced ratio of Nitrogen: Sulphur.
 Combination of ammoniacal and nitric forms of nitrogen provides
 plant nutrition during the entire growing period.
 Improves quality of grain, increases oil content in oil crops,
 as well as protein in cereals.



Appearance	White to light grey-yellowish granules
Total nitrogen (N)	30±1%
of which	
ammoniacal N (N-NH ₄), min	18%
nitric N (N-NO ₃), max	12%
Water-soluble Sulphur S (SO ₃), min	7% (17.5%)
Moisture, max	1%
Granulometric composition:	
under 1 mm, max	1%
2-5 mm, min	95%
under 6.3 mm	100%
Granule static strength, min	3 MPa
Free flowing	100%

Packaging and transportation:

NS 30:7 is available in bulk or big-bags (500-1000 kg).
 Should be stored under cover.



System of Management Certified for Compliance
 with ISO 9001, ISO 14001 and ISO 45001

The MSDS complying with REGULATION (EC) №1907/2006 is available on www.URALCHEM-ASSIST.de

Version 08.2020

The latest version is always available on the web-site www.URALCHEM.com

Safety Data Sheet
According to Regulation (EC) No. 1907/2006 (REACH) with its amendment
Regulation (EU) 2020/878

Revision Number: K-5-EN

Revision Date: 22-11-2021

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

1.1. Product identifier

Product form: Mixture

Trade name: NS 30-7

Synonyms: Sulphonitrate, mixture of ammonium nitrate (CAS 6484-52-2) and ammonium sulphate (CAS 7783-20-2).

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

1.2.1. Relevant identified uses

Use of the substance/mixture: Fertilizer.

1.2.2. Uses advised against: No.

1.3. Details of the supplier of the safety data sheet

Manufacturer:

Uralchem, JSC

Presnenskaya Naberezhnaya 6 bldg. 2

Moscow, 123112, Russia

KCKK Branch of Uralchem JSC in Kirovo-Chepetsk

Pozharniy Pereulok 7, Kirovo-Chepetsk

Kirov Oblast, 613040, Russia

Tel.: +7 (83361) 9-42-24

E-mail: marketing@uralchem.com

Only representative:

Uralchem Assist GmbH

Johannsenstrasse 10,

Hannover, D-30159, Germany

Tel.: + 49 511 45 99 444

Email: info@uralchem-assist.com

E-Mail address for the competent person responsible for the safety data sheet:
reach@uralchem.com

1.4. Emergency telephone number

+44 (0) 203 394 9870 (Available 24/7)

SECTION 2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

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

Oxidizing solids, Hazard Category 3; H272

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label Elements

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



Hazard pictograms (CLP)

:

Signal word (CLP)

: Warning

Hazard statements (CLP)

: H272 – May intensify fire; oxidizer.

Precautionary statements (CLP)

: P210 - Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.

P220 - Keep away from clothing and other combustible materials.

P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

P370+P378 In case of fire: Use water to extinguish.

2.3. Other hazards

PBT/vPvB: Not applicable (inorganic).

This substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance:

Not applicable

3.2 Mixture:

Name: Sulphonitrate brand NS 30-7

EC number	CAS number	Name	Concentration	Classification according to Regulation (EC) No 1272/2008	Specific concentration limits/M-Factor	Registration number under REACH Regulation
229-347-8	6484-52-2	Ammonium nitrate	69%	Oxidising solid 3, H272 Eye Irritation 2, H319	> 80% — ≤ 100% Eye Irritation 2, H319	01-2119490981-27-0019
231-984-1	7783-20-2	Ammonium sulphate	29 %	—	—	01-2119455044-46-0032

Under customer request, the product is processed with an anti-caking additive, registered according to REACH Regulation.

Remarks: Mixtures containing less than 80% ammonium nitrate are not classified as irritating to eyes (OECD 405 and OECD 437 studies lead on similar mixtures).

SECTION 4. FIRST AID MEASURES

4.1. Description of first aid measures

First-aid measures general:

In case of accident or if you feel unwell, seek medical advice immediately (show safety data sheet if possible).

Self-protection of the first aider:

First aid assistant: Pay attention to self-protection!

First-aid measures after inhalation:

Remove casualty to fresh air and keep warm and at rest. Rinse nasal cavity with water. Seek medical advice.

First-aid measures after skin contact:

After contact with skin, wash immediately with plenty of water and soap. Seek medical advice.

First-aid measures after eye contact:

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

First-aid measures after ingestion:

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Give activated carbon, in order to reduce the resorption in the gastro-enteric tract.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms/effects after skin contact : May cause irritation
Symptoms/effects after eye contact : May cause irritation.

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

Treat symptomatically. Get medical advice/attention if you feel unwell.

SECTION 5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media:
Water spray.

Extinguishing media which must not be used for safety reasons:
Foam.
Sand.
Water steam.

5.2 Special hazards arising from the substance or mixture

Can be released in case of fire (>210 °C) and during interaction with sulfur, pyrite sulfur, acids, superphosphate, chloride of lime: Nitrogen oxides (NO_x).

5.3 Advice for firefighters

Firefighting instructions:

Fight fire with normal precautions from a reasonable distance.

Protective equipment for firefighters:

Wear a self-contained breathing apparatus and chemical resistant suit. Rubber boots (heat resistant). Rubber gloves (oil and gasoline resistant).

Helmet.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment, and emergency procedures

General measures:

Provide adequate ventilation. Provide extract ventilation to points where emissions occur.

Keep away from heat sources (e.g. hot surfaces), sparks and open flames.

Use only non-sparking tools. Dustproof grounded equipment.

For non-emergency personnel

Protective equipment:

Wear personal protection equipment.

Emergency procedures:

Evacuate unnecessary personnel.

For emergency responders

Protective equipment :

See protective measures under section 7 and 8.

6.2. Environmental precautions

Do not allow water used to extinguish fire to enter drains or waterways.

Do not empty into drains or the aquatic environment.

Do not allow to enter into soil/subsoil.

Wet scrubber for dust elimination of waste gases.

6.3. Methods and material for containment and cleaning up

Remove mechanically, placing in appropriate containers for disposal.

<u>6.4. Reference to other sections</u>
See protective measures under Section 8 and 13.
SECTION 7. HANDLING AND STORAGE
<u>7.1. Precautions for safe handling</u>
<p>Do not breathe dust. Provide adequate ventilation. Keep away from heat sources (e.g. hot surfaces), sparks and open flames. Wear personal protection equipment.</p>
<u>7.2. Conditions for safe storage, including any incompatibilities</u>
<p>Storage conditions: Keep container tightly closed. Storage temperature: <30 °C Relative room humidity (%): <50%</p> <p>Protect against: Atmospheric precipitation, ground water.</p> <p>Guaranteed shelf life: 6 months after production.</p> <p>For retail: guaranteed shelf life: 18 months after production.</p> <p>Other information: Keep away from children. Keep away from food, drink and animal feedingstuffs.</p> <p>Packaging: PP bags and special plastic disposable containers</p>
<u>7.3. Specific end use(s)</u>
<p>Water dilution product must be used on the same day of preparation. Avoid dust production and inhalation.</p>

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

8.1.1. National occupational exposure and biological limit values.

Substance name:	Exposure limit values			
	8 h		Short term	
	ppm	mg/cm ³	ppm	mg/cm ³
Dust	--	10 (inhaled fraction)	--	--

8.1.2. Recommended monitoring procedures

No additional information available.

8.1.3. Air contaminants formed

No additional information available.

8.1.4. DNEL and PNEC

Ammonium Nitrate

NEL/DMEL: Worker					
Short term (acute)	Systemic effects	Skin contact	--	mg/kg bw/day	--
		Inhalation	--	mg/m ³	--
	Local effects	Skin contact	--	mg/cm ²	--
		Inhalation	--	mg/m ³	--
Long term (repeated)	Systemic effects	Skin contact	5.12	mg/kg bw/day	Repeated dose toxicity
		Inhalation	36	mg/m ³	Repeated dose toxicity
	Local effects	Skin contact	--	mg/cm ²	--
		Inhalation	--	mg/m ³	--

DNEL/DMEL: Consumer					
Short term (acute)	Systemic effects	Skin contact	--	mg/kg bw/day	--
		Inhalation	--	mg/m ³	--

Long term (repeated)	Local effects	Ingestion	--	mg/kg bw/day	--
		Skin contact	--	mg/cm ²	--
		Inhalation	--	mg/m ³	--
	Systemic effects	Skin contact	2.56	mg/kg bw/day	Repeated dose toxicity
		Inhalation	8.9	mg/m ³	Repeated dose toxicity
		Ingestion	2.56	mg/kg	Repeated dose toxicity
	Local effects	Skin contact	--	mg/cm ²	--
		Inhalation	--	mg/m ³	--
		Ingestion	--	mg/kg bw/day	--

PNEC			
Freshwater	--	mg/l	--
Marine water	--	mg/l	--
Intermittent releases	--	mg/l	--
Sediment	--	mg/kg	--
Sediment-marine	--	mg/kg	--
Soil	--	mg/kg	--
Air	--	mg/cm ³	--
Sewage treatment plant	18	mg/l	Extrapolation method
Secondary poisoning	--	mg/kg	--

8.1.5. Control banding

No additional information available.

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Provide adequate ventilation.
Provide extract ventilation to points where emissions occur.

8.2.2. Personal protection equipment

Avoid all unnecessary exposure.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection:

Suitable eye protection: Tightly sealed safety glasses.

8.2.2.2. Skin protection

Wear suitable working clothes.

Woolen or cotton suits.

Leather or rubber boots.

Hand protection:

Chemical resistant gloves.

Suitable material: butyl rubber, neoprene.

Penetration time (maximum wearing period): < 8h.

8.2.2.3. Respiratory protection

Use a suitable respirator.

8.2.2.4. Thermal hazards

Wear personal protective equipment.

8.2.3. Environmental exposure controls

See section 6.

Other information:

Avoid direct contact. Wash hand before breaks and after work. Do not eat, drink or smoke at the workplace.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state:	Solid
Appearance:	Granulate
Colour:	White to light grey-yellowish granules
Odour:	Odourless

Odour threshold:	Not applicable (odorless)
pH:	≥ 4.5 (10% solution)
Melting point/freezing point:	170°C
Initial boiling point and boiling range:	Decomposes before boiling.
Flash point:	Not applicable (solid)
Flammability (solid, gas):	> 600 °C
Upper/lower flammability or explosive limits:	Not applicable (non-flammable)
Explosive properties:	Not explosive
Oxidising properties:	Oxidising Solids, Category 3, H272: May intensify fire; oxidiser.
Vapour pressure:	No data available (Not required by REACH for the substances within the formulation)
Relative density	1.03 - 1.04 g/cm ³ (bulk density)
Solubility:	Partially soluble in acetone, ethyl alcohols and methyl alcohol (information available for ammonium nitrate).
Water solubility:	100% Soluble
Partition coefficient: n-octanol/water:	Not applicable (inorganic)
Viscosity:	Not applicable (solid)

Vapour density:	No data available (Not required by REACH for the substances within the formulation)
Evaporation rate:	No data available (Not required by REACH for the substances within the formulation)
Auto-ignition temperature:	No data available (Not required by REACH for the substances within the formulation)
Decomposition temperature:	> 210 °C
Particle size:	Not available
Particle size distribution:	Not available
Particle shape:	Not available
Particle aspect ratio:	Not available
Particle aggregation state:	Not available
Particle agglomeration state:	Not available
Particle specific surface area:	Not available
Particle dustiness:	Not available
<u>9.2. Other information</u>	
<p>9.2.1. Information with regards to physical hazard classes</p> <p>No data available</p> <p>9.2.2. Other safety characteristics</p> <p>Relative evaporation rate (butylacetate=1): Not determined</p>	

SECTION 10. STABILITY AND REACTIVITY

10.1. Reactivity

See section 10.5

10.2. Chemical stability

Not hazardous reaction when handled and stored according to provisions.

10.3. Possibility of hazardous reactions

Reacts with: Strong alkalis; Strong acids.

10.4. Conditions to avoid

Keep away from: Incompatible materials.

Atmosphere influence.

Keep away from heat sources (e.g., hot surfaces), sparks and open flames.

Welding equipment with traces of fertilizers.

10.5. Incompatible materials

Flammable substances, reducers, acids, alkalis, chlorates, chlorides, chromates, nitrites, permanganates, metal powder, substances containing metals: such as copper, nickel, cobalt, zinc and their alloys, petroleum products and strong bases; NaOCl.

10.6. Hazardous decomposition products

Nitrogen and sulfur oxides, ammonia.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects:

11.1.1. Acute effects (acute toxicity, irritation and corrosivity):

LD50 oral:	2950 mg /kg bw (rat, male/female) OECD 401 (Ammonium nitrate)
LD50 dermal:	> 5000 mg/kg bw (rat, male/female) OECD 402 (Ammonium nitrate)
LC50 inhalation:	No data available
Skin corrosion /irritation:	Ammonium nitrate: Not an irritant (rabbit) OECD 404
Serious eye damage/irritation:	Ammonium nitrate: Irritant (rabbit) OECD 405
Specific target organ toxicity – single exposure:	Based on the available data, the classification criteria are not met.

11.1.2. Sensitisation

Respiratory sensitisation:

No data available

Skin sensitisation:

Based on the available data, the classification criteria are not met.
Ammonium nitrate: Not sensitizing (mouse, read-across)
OECD 429, EU B.42, EPA OPPTS 870.2600

11.1.3. Repeated dose toxicity:

Specific target organ toxicity — repeated exposure: Based on the available data, the classification criteria are not met.

Ammonium nitrate:

Oral (28 d):

NOAEL > 1500 mg/kg bw/day (read-across) (rat; male/female)

OECD 422

Oral (52 and 104 weeks):

NOAEL: 256 mg/kg bw/day (read-across) (rat; male)

NOAEL: 284 mg/kg bw/day (read-across) (rat; female)

OECD 453

Ota Y. et al. (2006)

Inhalation (2 weeks):

NOAEC (systemic) > 185 mg/m³ air (rat; male)

11.1.4. CMR effects (carcinogenicity, mutagenicity, and toxicity for reproduction):

Ammonium nitrate:

Carcinogenicity: No data available.

Germ cell mutagenicity: Based on the available data, the classification criteria are not met.

Reproductive toxicity: Based on the available data, the classification criteria are not met.

Fertility:

Oral (28 days):

NOAEL (reproduction toxicity) > 1500 mg/kg bw/day (read-across) (rat; male/female)

OECD 422

Developmental toxicity:

Oral (28 days):

NOAEL (developmental toxicity) > 1500 mg/kg bw/day (read-across) (rat; male/female)

OECD 422

Reproductive toxicity, effects on or via lactation: No data available.

11.1.5. Aspiration hazard:

No data available

<u>11.2. Information on other hazards</u>
<p>11.2.1. Endocrine disrupting properties: Not classified. Based on available data, the classification criteria are not met.</p> <p>11.2.2. Other information: Potential Adverse human health effects and symptoms: Based on available data, the classification criteria are not met.</p>
SECTION 12. ECOLOGICAL INFORMATION
<u>12.1. Toxicity</u>
Acute toxicity to fish
LC50:
<p>Ammonium nitrate Species: <i>Cyprinus carpio</i> 447 mg/L (freshwater , static) Dabrowska, H. and Sikora, H. (1986)</p>
Chronic toxicity to fish
NOEC:
No data available.
Acute toxicity to crustaceans
EC50:
<p>Ammonium nitrate: Species: <i>Daphnia magna</i> 490 mg/l (48h) (freshwater, read-across) Dowden, B. F. and Bennett H. J. (1965)</p>

Chronic toxicity to crustaceans
NOEC:
No data available.
Acute toxicity to algae and other aquatic plants
EC50:
Ammonium nitrate Species: <i>Several benthic diatoms</i> > 1700 mg/L (read-across) (10d) (marine water, inhibition of growth rate) Admiraal W. (1977)
Toxicity data on soil micro- and macro-organisms and other environmentally relevant organisms, such as birds, bees, and plants
No data available.
<u>12.2. Persistence and degradability</u>
The study does not need to be conducted because the substance is inorganic
Other relevant information:
In water, the substance is completely dissociated. Required removal efficiency (wastewater): Anaerobic conversion of ammonium: Average biodegradation (20 ° C): 52 g N / kg / day. Anaerobic transformation of nitrate: Average rate of biodegradation (20 ° C): 70 g N / kg / day..

<u>12.3. Bioaccumulative potential</u>
Experimental BCF:
Low bioaccumulation potential
Log Pow
The study does not need to be conducted because the substance is inorganic.
<u>12.4. Mobility in soil</u>
Low adsorption potential.
<u>12.5. Results of PBT and vPvB assessment</u>
The study does not need to be conducted because the substance is inorganic.
<u>12.6. Endocrine disrupting properties</u>
No additional information available.
<u>12.7. Other adverse effects</u>
No data available.
SECTION 13. DISPOSAL CONSIDERATIONS
<u>13.1. Waste treatment methods</u>
This product and its packaging must be disposed of in a safe way. Generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional or local authority requirements.

13.1.1 Product






Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer but processed in a suitable effluent treatment plant. Depending on the degree and nature of the contamination, dispose of it as fertilizer on the field, as a raw material or in an authorized waste facility. Incineration or landfill should only be considered when recycling is not feasible. European waste catalogue (EWC) waste code 06 10 02 - wastes containing dangerous substances.

13.1.2 Packaging

Empty containers or liners may contain product residues. Packages should be emptied and can be recycled after thorough cleansing. If approved by local authorities, empty containers may be disposed of as non-hazardous material or returned for recycling.

SECTION 14. TRANSPORT INFORMATION

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
UN 2067	UN 2067	Not regulated	UN 2067	UN 2067
14.2. UN proper shipping name				
AMMONIUM NITRATE BASED FERTILIZER	AMMONIUM NITRATE BASED FERTILIZER	Not regulated	AMMONIUM NITRATE BASED FERTILIZER	AMMONIUM NITRATE BASED FERTILIZER
Transport document description				
5.1	5.1	Not regulated	5.1	5.1
14.3. Transport hazard class(es)				
				
14.4. Packing group				
III	III	Not regulated	III	III
14.5. Environmental hazards				

Not marine pollutant.	Not marine pollutant.	Not regulated	Not marine pollutant.	Not marine pollutant.
Special precautions for user				
<p>Reduces oxygen maintenance in hold atmosphere. It is necessary to exclude contact of cargo to heated surfaces from above 50°C. At humidifying cargo is corrosion active.</p>				
Overland transport				
Not applicable				
Transport by sea				
Not applicable				
Air transport				
Not applicable				
Inland waterway transport				
Not applicable				
Rail transport				
Not applicable				
NS 30-7 is transported by rail, road and water transport, in accordance with the rules for the carriage of dangerous goods in force for this type of transport (UN 2067).				
<u>14.6. Transport in bulk according to Annex II of Marpol and the IBC Code</u>				
Not relevant				

14.7. Maritime transport in bulk according to IMO instruments

No data available.

SECTION 15. REGULATORY INFORMATION

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

Regulation (EC) No 2003/2003 of the European Parliament and of the council of 13 October 2003, relating to fertilizers.

Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for the Community action in the field of water policy.

Council Directive 91/676/EEC concerning the Protection of Waters against Pollution caused by Nitrates from Agricultural Sources.

Directive 2012/18/EU of the European Parliament and of the council of 4 July 2012, on the control of major-accident hazards involving dangerous substances.

15.2. Chemical safety assessment

For this substance a chemical safety assessment has been carried out.

SECTION 16. OTHER INFORMATION

16.1. Indication of changes:

Version № K-5-EN of 22.11.2021

According to Regulation (EU) 2015/830, 2020/878 (REACH Annex II):

Change of revision number: K-5-EN.

Change of revision date: 22-11-2021.

Section 1.1: Product identifier – Added Product form: Mixture.

Section 2.3: Other hazards – Added confirmation the product does not contain substances for having endocrine disrupting properties.

Section 4.1: Description of first aid measures – Information was divided into the following categories: First aid measures general; First aid measures after inhalation; First aid measures after skin contact; First aid measures after eye contact; First aid measures after ingestion

Section 4.2: Added a separate sub-heading for Most important symptoms and effects, both acute and delayed.

Section 4.3: Added a separate sub-heading for Indication of any immediate medical attention and special treatment needed.

Section 5: Added separate sub-headings for Extinguishing media; Special hazards arising from the substance or mixture; Advice for firefighters.

Section 6: Added separate sub-headings for Personal precautions, protective equipment, and emergency procedures; Environmental precautions; Methods and material for containment and cleaning up; Reference to other sections.

Section 8.1: Added separate sub-headings for National occupational exposure and biological limit values; Recommended monitoring procedures; Air contaminants formed; DNEL and PNEC; Control banding.

Section 8.2.2: Added Personal protective equipment symbols.

Section 9: Updated Information on basic physical and chemical properties.

Section 11: Updated Toxicological information.

Section 12: Updated Ecological information.

Section 14: Updated format in a table.

Section 16: Updated Indications of changes. Added Sources of Key data. Added Full text of H- and EUH-statements.

Version № K-4-EN

Section 3.2: Clarified classification of the mixture upon contact with eyes.

Version № K-3-EN

Section 13: Adding information on Disposal considerations.

Section 15.1: Added Directive 2012/18/EU.

Version № K-2-EN

Section 1.3: Change of Manufacturer's name.

Section 2.1: Classification per Directive 1999/45/EEC deleted as no longer applicable, effective 1 June 2015.

Section 3: Classification per Directive 67/548/EEC deleted as no longer applicable, effective 1 June 2015.

Section 16: Classification per Directive 1999/45/EEC deleted as no longer applicable, effective 1 June 2015.

Exposure scenario added for main hazardous component: ammonium nitrate.

Sections 2.1, 2.2, 3, 8.1, 11.2, 16: Information update according to the new data available in the REACH Registration process.

16.1.2 Abbreviations:

DNEL: Derived No-Effect Level.

PNEC: Predicted No-Effect Concentration.

NOAEL: No Observed Adverse Effect Level.

NOEC: No observed effect concentration.

LD50: Lethal Dose 50%. The LD50 corresponds to the dose of a tested substance causing 50% lethality during a specified time interval.

LC50: Lethal Concentration 50%. The LC50 corresponds to the concentration of a tested substance causing 50% lethality during a specified time interval.

EC50: Effective Concentration 50%. The EC50 corresponds to the concentration of a tested substance causing 50% changes in response (e.g. on growth) during a specified time interval.

BCF: Bioconcentration factor.
PBT: Persistent, bioaccumulative and toxic.
vPvB: Very Persistent and very Bioaccumulative

16.1.3 Sources of Key data:

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

16.1.4 Other information:

None.

Full text of H- and EUH-statements:	
H272	May intensify fire; oxidiser.
Ox. Sol. 3	Oxidising Solids, Category 3

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.

ANNEX I
Exposure scenario: Ammonium nitrate

1.- Title of exposure scenario number 1: Manufacturing	
<i>SU 8: Manufacture of bulk, large scale chemicals (including petroleum products)</i>	
<i>SU9: Manufacture of fine chemicals</i>	
<i>ERC1: Manufacture of substances</i>	
<i>PROC1: Use in closed process, no likelihood of exposure</i>	
<i>PROC2: Use in closed, continuous process with occasional controlled exposure</i>	
<i>PROC3: Use in closed batch process (synthesis or formulation)</i>	
<i>PROC8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities</i>	
<i>PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities</i>	
<i>PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)</i>	
<i>PROC14: Production of preparations or articles by tableting, compression, extrusion, pelettisation</i>	
<i>PROC15: Use as laboratory reagent</i>	
2.- Exposure scenario	
2.1.- Contributing scenario controlling environmental exposure for ERC1	
Environmental assessment: Not performed.	
2.2.- Contributing scenario controlling worker exposure for PROC1, 2, 3, 8a, 8b, 9, 14, 15.	
Product characteristics	
Concentration	No data available.
Physical state	Solid
Volatility	Low
Amounts used	
No data available	
Frequency and duration of use	
Duration	> 4 hours per day.
Human factors not influenced by risk management	
No data available	
Other given operational conditions affecting workers exposure	
Domain	Industrial.
Indoor / Outdoor	Indoor.
Technical conditions and measures at process level (source) to prevent release	
Effectiveness of containment	
Technical conditions and measures to control dispersion from source towards the worker	
Ventilation	Provide a good standard of general ventilation.

Local exhaust ventilation (LEV)	Not required.
Organisational measures to prevent /limit releases, dispersion and exposure	
Minimise number of staff exposed. Segregation of the emitting process. Effective contaminant extraction. Minimisation of manual phases. Avoidance of contact with contaminated tools and objects. Regular cleaning of equipment and work area. Management/supervision in place to check that the RMMs in place are being used correctly and OCs followed . Training for staff on good practice. Good standard of personal hygiene.	
Conditions and measures related to personal protection, hygiene and health evaluation	
Respiratory protection	Not required.
Hand protection	Not required.
Eye protection	Goggles.
Skin protection	Not required.
3.- Exposure estimation and reference to its source	
Human health assessment: Qualitative assessment (eye irritation, oxidising) Environmental assessment: Not performed.	
4.- Guidance to DU to evaluate whether he works inside the boundaries set by the ES.	
Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling was deemed necessary to define appropriate site-specific risk management measures.	

1.- Title of exposure scenario number 2: Industrial use including distribution and other activities related to the processes in industrial settings
<i>SU 3: Industrial uses: Uses of substances as such or in preparations at industrial sites</i> <i>SU10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)</i>
<i>PC1: Adhesives, sealants</i> <i>PC11: Explosives</i> <i>PC12: Fertilizers</i> <i>PC19: Intermediate</i> <i>PC37: Water treatment chemicals</i>
<i>ERC2: Formulation of preparations (mixtures)</i> <i>ERC6a: Industrial use resulting in manufacture of another substance (use of intermediates).</i>
<i>PROC1: Use in closed process, no likelihood of exposure</i>

PROC2: Use in closed, continuous process with occasional controlled exposure

PROC3: Use in closed batch process (synthesis or formulation)

PROC5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)

PROC8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities

PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities

PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

PROC13: Treatment of articles by dipping and pouring

PROC15: Use as laboratory reagent

2.- Exposure scenario

2.1.- Contributing scenario controlling environmental exposure for ERC2 and 6a

Environmental assessment: Not performed.

2.2.- Contributing scenario controlling worker exposure for PC1, 11, 12, 19, 37, PROC1, 2, 3, 5, 8a, 8b, 9, 13 and 15

Product characteristics

Concentration	100%
Physical state	Solid, liquid.
Volatility	Low

Amounts used

No data available.

Frequency and duration of use

Duration	> 4 hours day.
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Human factors not influenced by risk management

No data available.

Other given operational conditions affecting workers exposure

Domain	Industrial.
Indoor / Outdoor	Indoor.

Technical conditions and measures at process level (source) to prevent release

Effectiveness of containment

Technical conditions and measures to control dispersion from source towards the worker

Ventilation	Provide a good standard of general ventilation.
Local exhaust ventilation (LEV)	Not required.

Organisational measures to prevent /limit releases, dispersion and exposure

Minimise number of staff exposed.
Segregation of the emitting process.
Effective contaminant extraction.
Minimisation of manual phases.

Avoidance of contact with contaminated tools and objects.
 Regular cleaning of equipment and work area.
 Management/supervision in place to check that the RMMs in place are being used correctly and OCs followed .
 Training for staff on good practice.
 Good standard of personal hygiene.

Conditions and measures related to personal protection, hygiene and health evaluation

Respiratory protection	Not required.
Hand protection	Not required.
Eye protection	Goggles.
Skin protection	Not required.

3.- Exposure estimation and reference to its source

Human health assessment: Qualitative assessment (eye irritation, oxidising)
 Environmental assessment: Not performed.

4.- Guidance to DU to evaluate whether he works inside the boundaries set by the ES.

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.
 Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.
 Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling was deemed necessary to define appropriate site-specific risk management measures.

1.- Title of exposure scenario number 3: Professional end use

SU 22: Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

PC12: Fertilizers

ERC8b: Wide dispersive indoor use of reactive substances in open systems

ERC8e: Wide dispersive outdoor use of reactive substances in open systems

PROC1: Use in closed process, no likelihood of exposure

PROC2: Use in closed, continuous process with occasional controlled exposure

PROC8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities

PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities

PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

PROC11: Non industrial spraying

PROC15: Use as laboratory reagent

PROC19: Hand-mixing with intimate contact and only PPE available

2.- Exposure scenario

2.1.- Contributing scenario controlling environmental exposure for ERC8b and 8e

Environmental assessment: Not performed.

2.2.- Contributing scenario controlling worker exposure for PC12, PROC 1, 2, 8a, 8b, 9, 11, 15 and 19

Product characteristics	
Concentration	> 25%
Physical state	Solid, liquid.
Volatility	Low.
Amounts used	
No data available.	
Frequency and duration of use	
Duration	> 4 hours per day
Human factors not influenced by risk management	
No data available.	
Other given operational conditions affecting workers exposure	
Domain	Professional.
Indoor / Outdoor	Indoor / Outdoor.
Technical conditions and measures at process level (source) to prevent release	
Technical conditions and measures to control dispersion from source towards the worker	
Ventilation	Provide a good standard of general ventilation.
Local exhaust ventilation (LEV)	Not required.
Organisational measures to prevent /limit releases, dispersion and exposure	
Minimise number of staff exposed. Segregation of the emitting process. Effective contaminant extraction. Minimisation of manual phases. Avoidance of contact with contaminated tools and objects. Regular cleaning of equipment and work area. Management/supervision in place to check that the RMMs in place are being used correctly and OCs followed . Training for staff on good practice. Good standard of personal hygiene.	
Conditions and measures related to personal protection, hygiene and health evaluation	
Respiratory protection	Not required.
Hand protection	Not required.
Eye protection	Goggles.
Skin protection	Not required.
3.- Exposure estimation and reference to its source	
Human health assessment: Qualitative assessment (eye irritation, oxidising)	
Environmental assessment: Not performed.	
4.- Guidance to DU to evaluate whether he works inside the boundaries set by the ES.	

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented [G22].

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels [G23].

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling was deemed necessary to define appropriate site-specific risk management measures [DSU1].

1.- Title of exposure scenario number 4: Consumer end use

SU21: Consumer uses: Private households (= general public = consumers)

PC11: Explosives

PC12: Lawn and garden preparations

ERC8b: Wide dispersive indoor use of reactive substances in open systems

ERC8e: Wide dispersive outdoor use of reactive substances in open systems

ERC10a: Wide dispersive outdoor use of long-life articles and materials with low release

2.- Exposure scenario

2.1.- Contributing scenario controlling environmental exposure for ERC 8b, 8e and 10a

Environmental assessment: Not performed.

2.2.- Contributing scenario controlling consumer exposure for PC 11 and 12

Product characteristics

No data available.

Amounts used

No data available.

Frequency and duration of use

No data available.

Human factors not influenced by risk management

No data available.

Other given operational conditions affecting consumers exposure

No data available.

Conditions and measures related to information and behavioural advice to consumers

Product labelling.

Conditions and measures related to personal protection and hygiene

Respiratory protection

Not required.

Hand protection

Not required.

Eye protection

Chemical goggles.

Skin protection

Not required.

3.- Exposure estimation and reference to its source

Human health assessment: Qualitative assessment (eye irritation, oxidising)

Environmental assessment: Not performed.

4.- Guidance to DU to evaluate whether he works inside the boundaries set by the ES.

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented [G22].

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels [G23].

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling was deemed necessary to define appropriate site-specific risk management measures [DSU1].