



HIP
AZOTARA

COMPANY FOR THE PRODUCTION OF FERTILIZERS AND NITROGEN COMPOUNDS

"HIP-AZOTARA" d.o.o. Pančevo

SAFETY DATA SHEET

In accordance with the Rulebook on the content of the safety data sheet (The Official Gazette of the RS no. 100/2011) and Regulation EC 1907/2006 (REACH)

Compiled on: 9.12.2010.

Revised on: 20.10.2015.

Replaces the previous version of the safety data sheet starting from: 15.08.2016.

Version No: 1

Rev. No: 7 this revised version replaces all the previous versions

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

Subsection 1.1. Product identifier:	CAN (25%N; 27%N) CALCIUM AMMONIUM NITRATE
Subsection 1.2. Relevant identified uses of the substance or mixture, and uses advised against:	Primarily used for plant nutrition. It is applied over the soil, by spreading evenly over the whole area or locally (side-dressed along the rows or stalks, with or without incorporating into the upper layer of soil). Applicable to the following crops: wheat, maize, sugar beet, sunflower, fruit and potatoes.
Uses advised against:	None
Subsection 1.3. Details of the Supplier: Manufacturer/Supplier: a) Status: b) Street address and telephone number: c) e-mail address of competent person responsible for the safety data sheet d) only representative in the EU	"HIP-AZOTARA" d.o.o. Pančevo Manufacturer/Producer Spoljnostarčevačka 80, 26000 Pančevo, The Republic of Serbia +381 13 308067 ; 7-15 h (Environmental Protection Department) +381 13 308052 , 308057; 7-15 h (Sales Department) gordana.vasojevic@hip-azotara.rs ekologija.info@hip-azotara.rs BENS consulting d.o.o. Address: Bakovniška 7, 1241 Kamnik, Slovenia Tel.: +386 1 562 19 20 e-mail: info@kemikalije.com Person responsible for information in EU: Mark Stanojevic
Subsection 1.4. Emergency address and telephone number: Single European emergency call number:	National Poison Control Center– VMA Crnotravska 17, 11 000 Belgrade +381 11 3608440 (24 h / 7 days a week) 112
Supplier:	+386 1 562 19 20

SECTION 2. HAZARDS IDENTIFICATION


<p>Subsection 2.1. Classification of the substance or mixture:</p>	<p><u>Classification of the chemical substance according to the Rulebook on classification, packaging, labelling and advertising of the chemical and certain article in accordance with the Globally harmonized system of classification and labelling of the UN („The Official Gazette of the RS“105/13):</u></p> <p><i>CAN (Plant nutrition product) NOT classified as hazardous product</i></p> <p><u>Harmful physical and chemical effects of the chemical substance:</u></p> <ul style="list-style-type: none">- if inhaled, dusts or powder may be irritating to throat and respiratory tract- prolonged contact with skin and eyes may cause irritation- surface waters contamination- in case of fire, toxic gases may be released <p><u>Harmful effects of the chemical substance to human health and the environment:</u></p> <p>CAN is not ignitable by itself. The risk of fire depends on other ignitable materials that might be present nearby, such as parts of handling equipment, fuels, lubricants and hydraulic oils. It may produce toxic vapours and gases containing ammonia and nitrogen oxides. In the presence of reducing agents ammonium nitrate may transform into ammonium nitrite, which is not stable and may cause the risk of explosion..</p>
<p>Subsection 2.2. Label elements:</p>	<p>The fertilizer is not classified as hazardous product and therefore there is no need for label elements. The substance classified as hazardous is ammonium nitrate, the classification and labelling of which are given in <i>Section 3. Information on ingredients.</i></p>
<p>Subsection 2.3. Other hazards:</p> <p>a) persistent-bioaccumulative-toxic/very persistent-very bioaccumulative</p> <p>b) information on other harmful effects on human health</p> <p>v) information on environmental effects</p>	<p>The substance is not classified as PBT, or as vPvB.</p> <ul style="list-style-type: none">- if inhaled, dusts or powder may be irritating to throat and respiratory tract- prolonged contact with skin and eyes may cause irritation- surface waters contamination

SECTION 3. INFORMATION ON INGREDIENTS

Subsection 3.1.
Information on the
ingredients of the
substance:

See *Subsection 3.2. Information on the ingredients of the mixture*

Subsection 3.2.
Information on the
ingredients of the mixture:

<i>Product identifier</i>		Ammonium nitrate** CAS:6484-52-2
<i>EC number</i>		229-347-8
<i>REACH number</i>		01-2119490981-27-0114
<i>Index number</i>		/
<i>CAN concentration</i>	27 %	≥77%
	25 %	≥71%
<i>Occupational exposure limit values</i>		/
<i>Classification according to CLP/GHS</i>		
<i>Hazard class and category</i>		- Oxidizing solid 3 - Eye irritation, category 2
<i>Hazard statements</i>		H272 H319
<i>Label elements</i>		
<i>Signal word</i>		CAUTION!

**see Section 16 for full text of risk phrases and hazard statements.*

*** Ammonium nitrate is a substance contained in CAN in the percentage indicated and it has certain hazardous properties, which is the reason why the classification of ammonium nitrate is very important and emphasized in this section. Based on the Regulation on classification, packaging, labelling and advertising of chemical and certain article in accordance with Globally harmonized system of classification and labelling of the UN (The Official Gazette of the RS, no. 64/10, 26/11, 5/12 and 105/2013), methods were prescribed using which it has been calculated that CAN as fertilizer is not classified as hazardous product although it contains ammonium nitrate.*

SECTION 4. FIRST AID MEASURES

<p>Subsection 4.1. Description of first aid measures:</p> <ul style="list-style-type: none">- following inhalation: - following skin contact: - following eye contact: - following ingestion: - advice:	<p>Move the injured person to fresh air at once. Keep the patient warm and at rest. Apply artificial respiration if breathing has stopped or shows signs of failing. If the patient is unconscious, place them on their side in a stable position. If the patient suffers cardiac arrest (absence of heartbeats or pulse) commence cardio-pulmonary resuscitation immediately. Obtain immediate medical attention.</p> <p>Rinse with large quantities of water. Remove clothing and rinse the affected parts with water. Immediately obtain medical attention.</p> <p>Immediately flush eyes with eyewash solution or water for at least 15 minutes. Hold eyelids open during flushing, protecting the eye that is not affected. Continue flushing until medical attention is obtained.</p> <p>If the injured person is conscious, wash out mouth with water and give 2 or 3 glasses of water to drink. Do not induce vomiting, but if it occurs, put the patient in the face-down position in order to prevent lung damage. Obtain immediate medical attention.</p> <p>The rescuer must be adequately equipped with suitable protective clothing and SCBA. Give immediate first aid, obtain medical attention and fully inform the physician about the details of the accident. In addition to the facemask and self-contained breathing apparatus, the rescuer must wear protective gloves, protective clothing, suitable boots.</p>
<p>Subsection 4.2. Most important symptoms and effects, both acute and delayed:</p>	<p>The most important symptoms <u>following inhalation</u> are: nose and throat irritation, cough, breathing difficulty. <u>Following ingestion</u>: small quantities are unlikely to cause toxic effects, however large quantities may cause gastrointestinal disorders, and in extreme cases (particularly in children) formation of methaemoglobin (the 'blue baby' syndrome) and cyanosis (indicated by blueness around the mouth). <u>Following skin contact</u> may cause skin irritation, redness and itching. <u>Eye contact</u>: causes eye irritation.</p>
<p>Subsection 4.3. Indication of any immediate medical attention and special treatment needed:</p>	<p>Obtain medical attention if any of the above symptoms occur. The injured person must be under 48-hour medical supervision. There is no antidote.</p>

SECTION 5. FIREFIGHTING MEASURES

Subsection 5.1. Extinguishing media:	To be used: water. Not to be used: earth or sand.
Subsection 5.2. Special hazards arising from the substance or mixture:	CAN is not self-ignitable, however it can cause ignition of self-ignitable materials nearby. Therefore the risk of fire depends on the ignitable materials located in the immediate vicinity (fuel, wood, paper, oil,...) Vapours resulting from CAN combustion, i.e. the combustion of ammonium nitrate as the main raw material for the production of CAN, are toxic. Ammonia (NH ₃) and nitrogen oxides (NO _x) are released. Do not allow molten fertilizers to run into drains. If water containing fertilizer enters any drains or watercourses, inform the authorities immediately. Fire may be caused by: non-compliance with the instructions for use, not following the operating instructions (negligence, carelessness, lack of knowledge). If heated at high temperatures in tightly closed containers, ammonium-nitrate-based fertilizers may cause explosion.
Subsection 5.3. Advice for firefighters:	The fire should be extinguished from the greatest possible distance, and it should be approached from the direction of the wind. Firefighters must be protected by wearing suitable protective clothing (including helmet, protective footwear and gloves) and self-contained breathing apparatus. Protective equipment set for firefighters as per the ref. standard SRPS EN 469, protective gloves for firefighters (ref. standard SRPS EN 659) and boots as well as appropriate respiratory protective devices (ref. standard SRPS EN 137). They must also be trained for carrying and properly using the equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Subsection 6.1. Personal precautions, protective equipment and emergency procedures:	Use personal protective equipment. For information on protective equipment see <i>Subsection 8.2. Exposure controls and personal protection</i> . Avoid contact with eyes and skin.
Subsection 6.2. Environmental precautions:	Any spillage of CAN should be immediately cleaned up. Do not allow mixing with dust and other combustible or organic substances. In case of fire and ammonium nitrate vapours spreading, try to extinguish the fire as quickly as possible and notify emergency response personnel.
Subsection 6.3. Methods and material for containment and cleaning up:	Trained personnel should isolate the source of spill as soon as possible and cover the fertilizer with PE (polyethylene) film in order to prevent spreading of dust. Ventilate area of spill or leak. Remove ignition sources. Take care to avoid contamination of watercourses. Inform appropriate authorities in case of accidental contamination of watercourses or drains.
Subsection 6.4. Reference to other sections:	See <i>Section 8.2. Exposure controls and personal protection</i> for information on protective equipment. For information on waste treatment see <i>Section 13. Disposal considerations</i> .

SECTION 7. HANDLING AND STORAGE

Subsection 7.1. Precautions for safe handling:

Information on safe handling of the chemical substance:

- follow the operating instructions;
- wear full protective equipment;
- avoid skin and eye contact and inhalation of vapours;
- provide adequate ventilation.

Handling of incompatible chemical substances or mixtures:

Avoid ignitable materials, fine metallic powders (zinc, copper, cobalt), chlorates, permanganates, strong acids and other active compounds.

Information on handling in case of release of the chemical substance to the environment:

- control atmospheric levels for compliance with occupational exposure limits;
- personal protective equipment and firefighting equipment should always be at hand;
- clean up the location as quickly as possible and notify emergency response personnel.

General occupational hygiene:

- do not eat, drink or smoke in work areas;
- wash hands after use;
- remove contaminated clothing and protective equipment before exiting the work areas.

Subsection 7.2. Conditions for safe storage, including any incompatibilities:

Technical conditions: The facility used for storage must meet the requirements stated in 'Regulations of technical normatives on handling and storage of solid fertilizers containing ammonium nitrate' (The Official Journal of the SFRY no. 55/91 – the provisions of art. 3 par. 5 and 6 of these Regulations cease to be effective upon the entry into force of the Regulations issued in 'The Official Gazette of the RS no. 70/2010).

Storage conditions: The storage area must be dry and well-ventilated. The stored product must not be directly exposed to sunlight in order to avoid physical damage due to thermal decomposition. Do not permit smoking in the storage area. The recommended storage temperature is below 30°C.

The height of the stack of bags depends on the type of packaging:

- For products in 50 kg bags - up to 2 metres
- For products on pallets - 2 pallets in stack
- For products in big bags IBC (500 kg) - 3 layers in a vertical stack
- For products in big bags IBC (1000 kg) - 2 layers in a vertical stack
- The distance between the top of the stack and the ceiling, the roof construction and the source of light or electrical devices must be 1 m.

Storage in bulk:

The product in bulk should be stored in closed, dry and ventilated areas, and the warehouse floor and the pile of stored product should be covered with PE or PE/PP film. In case that different types of fertilizers or materials other than fertilizers are stored in the same building, take care to separate them properly

in order to avoid contamination. Pay particular attention to their compatibility, including the case of fire. Do not store urea together with ammonium-nitrate-based fertilizers (CAN and SAN).

Storage of packaged fertilizers:

There should be wide enough passage around each stack for the access of vehicles, in order to facilitate removal in case of emergency. Do not store different types of fertilizers in the same stack. Do not store the fertilizer in the same stack with any product that is not used for fertilization. Bagged fertilizers can be stored outdoors as well. In case of outdoor storage, the product can be protected against sunlight using white plastic film.

Reactions of ammonium nitrate with construction materials:

Incompatible materials for storage are ignitable materials, reducing agents, acids, alkalies, sulphur, chlorates, chlorides, chromates, nitrites, permanganates, metallic powder, substances containing metallic powders such as copper, nickel, cobalt, zinc and their alloys.

Electrical equipment: electrical installation resistant to ammonia vapours is required.

Subsection 7.3. Specific end use(s):	Professional use only, in accordance with the prescribed operating instructions.
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SECTION 8. EXPOSURE CONTROLS

Subsection 8.1. Control parameters:

No occupational exposure limits have been established for CAN or any of its components. The main possible hazard associated with exposure to CAN fertilizer refers to irritating dust. Maximum threshold limit value for exposure to irritating dust is 10 mg/m³ according to the Regulation on preventive measures for safe and healthy work when exposed to chemicals (The Official Gazette of the RS 106/2009).

Derived no-effect level (DNEL):

Name of the substance	Population likely to be exposed	Route of exposure	Frequency and duration of the exposure	Value
Ammonium nitrate 6484-52-2	workers	dermal	Long-term exposure	5.12 mg/kg bw/day
Ammonium nitrate 6484-52-2	workers	inhalation	Long-term exposure	36 mg/m ³
Ammonium nitrate 6484-52-2	consumers	inhalation	Long-term exposure	8.9 mg/m ³
Ammonium nitrate 6484-52-2	consumers	dermal	Long-term exposure	2.56 mg/kg bw/day
Ammonium nitrate 6484-52-2	consumers	oral	Long-term exposure	2.56 mg/kg bw/day

Predicted no-effect concentration (PNEC):

Name of the substance	Compartment	Value
Ammonium nitrate 6484-52-2	Fresh water	0.45 mg/l
Ammonium nitrate 6484-52-2	Marine water	0.045 mg/l
Ammonium nitrate 6484-52-2	Water, intermittent release	4.5 mg/l
Ammonium nitrate 6484-52-2	Water from wastewater treatment plant	18 mg/l

Subsection 8.2.
**Exposure controls and
personal protection:**

Appropriate engineering controls:

- provide ventilation in work area,
- eyewash stations with fresh water are required (these places must be clearly marked),
- avoid contact with skin,
- avoid inhalation,

Personal protection:

Eyeface protection: Safety glasses/face-shield

Skin protection: Wear overalls and suitable boots. In case of accident, wear special chemical-resistant overall. Protective gloves (rubber gloves).

Respiratory protection: Use facemask. In case of high dust concentrations use respirators.

Environmental Exposure Controls:

Environment exposure control should be performed in accordance with the applicable regulations.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Subsection 9.1.
**Information on basic physical and
chemical properties:**

a) appearance-physical state and
colour:

White solid granules

b) odour:

Odourless

v) odour threshold:

Data not available

g) pH:

5.5-7.5 (10% water solution, 20°C)

d) melting point/freezing point:

169.7°C (*The data refer to ammonium nitrate*)
891°C (*The data refer to calcium carbonate*)

đ) initial boiling point and boiling
range:

210°C

e) flash point:	Not relevant, ammonium nitrate is not flammable
ž) evaporation rate:	Data not available
z) flammability:	Not flammable
i) upper/lower flammability or explosive limits:	Data not available
j) vapour pressure:	Data not available
k) vapour density:	Data not available
l) relative density:	1.72 g/cm ³ (<i>The data refer to ammonium nitrate</i>)
lj) solubility:	Highly soluble in water >100 g/l
m) partition coefficient: n-octanol/water:	Not relevant, this is an inorganic substance
n) auto-ignition temperature:	Not relevant, ammonium nitrate is not flammable
nj) decomposition temperature:	>210°C (<i>The data refer to ammonium nitrate</i>)
o) viscosity:	Data not available
p) explosive properties:	Not explosive
r) oxidising properties:	Ammonium nitrate is classified as an oxidising substance

Subsection 9.2. Other information:

-miscibility with other substances:

Well soluble in pyridine, methanol and liquid ammonia.

SECTION 10. REACTIVITY AND STABILITY

Subsection 10.1.

Reactivity:

CAN is stable if kept in original packages/containers in storage areas with natural ventilation and if protected against fire, ignition sources, wet floors and atmospheria.

Subsection 10.2.

Chemical stability:

Ammonium nitrate is stable up to 185-200°C. At temperatures above 280°C ammonium nitrate decomposes more rapidly and the initiation of explosion is possible; at temperatures higher than 400°C decomposition goes along with a powerful explosion.

Subsection 10.3.

Possibility of hazardous reactions:

Decomposition may produce nitrogen oxides (NO, NO₂...), ammonia and amines. Ammonium nitrate is classified as oxidising substance, and therefore it can react violently with flammable reducing agents.

Subsection 10.4.

Conditions to avoid:

- Heating above 210°C (decomposition into gases).
- Contamination by inadequate materials.
- Unnecessary exposure to the atmosphere.
- Closeness to sources of heat or fire.

	-Welding or hot work or similar works on equipment or in plant which may have contained fertilizer, without prior thorough clean up and removal of all fertilizer residues.
Subsection 10.5. Incompatible materials:	Ignitable materials, reducing agents, acids, alkalies, sulphur, chlorates, chlorides, chromates, nitrites, permanganates, metallic powders, substances containing metallic powders such as copper, nickel, cobalt, zinc and their alloys.
Subsection 10.6. Hazardous decomposition products:	Decomposition may produce nitrogen oxides (NO, NO ₂ ...), ammonia and amines.

SECTION 11. TOXICOLOGICAL INFORMATION

Subsection 11.1. Information on toxicological effects:

a) acute toxicity:

Data refer to ammonium nitrate:

-oral (LD₅₀): 2950 mg/kg (rat) method: OECD 401

-skin (LD₅₀): >5000 mg/kg (rat) method: OECD 402

/source: ECHA-European Chemicals Agency/

b) skin corrosion/irritation:

Does not cause irritation or skin burns, tested on rats

Tested on product (OECD test 405 & 437)

v) severe eye damage/irritation:

Does not cause eye irritation. Tested on rats OECD 405/EU-metod B5.

g) respiratory or skin sensitization:

The substance is not classified as respiratory tract or skin sensitizer. Tested on mice OECD 429.

(Data refer to ammonium nitrate)

d) germ cell mutagenicity:

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

d) carcinogenicity:

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

e) reproductive toxicity:

Based on the test performed on rats for developmental toxicity, the data obtained for the value of 1500 mg/kg bw/day from the test OECD 422 are negative.

(Data refer to ammonium nitrate)

ž) specific target organ toxicity – single exposure and repeated exposure:

NOAEL (rat, oral) 28 days, 256 mg/kg, OECD 422

NOEC (rat) 2 weeks, > 185 mg/kg, OECD 412

(Data refer to ammonium nitrate)

z) aspiration hazard:

No aspiration hazard (Data refer to ammonium nitrate)

Subsection 11.2. Likely routes of exposure:

- Skin exposure: redness of the skin and itching
- Eye exposure: lacrimation
- peroral: irritation of the nose and throat
- inhalation: irritation of the nose and throat, cough

Subsection 11.3. Symptoms related to the physical, chemical and toxicological characteristics:	See subsection 4.2. <i>Most important symptoms and effects, both acute and delayed</i>
Subsection 11.4. Delayed and immediate effects, as well as chronic effects from short and long term exposure:	See subsection 4.2. <i>Most important symptoms and effects, both acute and delayed</i>
Subsection 11.5. Interactive effects:	Data not available
Subsection 11.6. Absence of specific data:	All the available and relevant data are shown
Subsection 11.7. Mixture versus substance information	The substances in the mixture may interact causing eye irritation; in case of sensitive skin, redness and itching may occur; inhalation and ingestion may lead to nose and throat irritation.
Subsection 11.8. Other information:	All the available and relevant data are shown

SECTION 12. ECOLOGICAL INFORMATION

Subsection 12.1. Toxicity: - <u>aquatic organisms</u> :	<i>Data refer to ammonium nitrate:</i> <u>fish</u> : *LC ₅₀ = 447 mg/l, 48h (Cyprinus carpio-carp) <u>daphnia</u> : * EC ₅₀ = 490 mg/l, 48h <u>algae</u> : * EC ₅₀ > 1700 mg/l, 10 days / ECHA-European Chemicals Agency/
- <u>soil organisms</u> :	Data not available
- <u>plants and terrestrial organisms</u> :	Data not available
Subsection 12.2. Persistence and degradability: -biodegradation:	Data not available
-other processes of degradation:	Natural nitrification/denitrification processes in which nitrogen or nitrogen oxides are formed.
-degradation in wastewaters:	Substantially biodegradable in water.
Subsection 12.3. Bioaccumulative potential:	The substance has no potential for bioaccumulation.
Subsection 12.4. Mobility in soil:	The substance has low mobility in soil whereas it is water-soluble.
Subsection 12.5. Results of PBT and vPvB assessment:	The substance is not classified as PBT, or as vPvB.
Subsection 12.6. Other adverse effects:	May cause changes in pH in the aquatic system. Depending on the local conditions and existing concentration, degradation activity may be inhibited by activated sludge.

SECTION 13. DISPOSAL CONSIDERATIONS

Subsection 13.1. Waste treatment methods:

Waste generation should be prevented or reduced to minimum wherever possible. Disposal of this product and any by-products must always be performed in accordance with the laws on environmental protection, laws on waste management and all the local requirements. Packaging waste should be recycled.

SECTION 14. TRANSPORT INFORMATION

Subsection 14.1. Transport information:

Not classified, considered a non-hazardous material as per the international transport codes, i.e. ADR /RID/ADN/IMDG/ICAO.

SECTION 15. REGULATORY INFORMATION

Subsection 15.1. Safety, health and environmental regulations:

- Law on chemicals (The Official Gazette of the RS, no. 36/09, 93/12)
- Law on waste management (The Official Gazette of the RS, no. 36/09 and 88/10)
- Regulation on classification, packaging, labelling and advertising of chemical and certain article in accordance with Globally harmonized system of classification and labelling (The Official Gazette of the RS, no. 64/10, 26/11 and 105/13)
- Regulations on storage, packaging and labelling of hazardous waste (The Official Gazette 92/10)
- Regulations on conditions and manner of collection, transport, storage and treatment of waste which is to be used as secondary raw material or for obtaining energy (The Official Gazette 98/10)
- Regulations on the contents of safety data sheet (The Official Gazette of the RS, no. 100/11)
- List of classified substances (The Official Gazette of the RS, no. 48/14)
- Regulation EC 1907/2006 (REACH)

Subsection 15.2. Chemical safety assessment:

Chemical safety assessment performed for ammonium nitrate, and the relevant Chemical Safety Report (CSR) has been prepared. The relevant information is contained in the sections of the present safety data sheet as well.

SECTION 16. OTHER INFORMATION

**Subsection 16.1.
Indication of
changes:**

This safety data sheet has been significantly changed and amended in terms of form and contents in accordance with:

- Regulations on the contents of safety data sheet (The Official Gazette of the RS no. 100/11)
- Regulation on classification, packaging, labelling and advertising of chemical and certain article in accordance with Globally harmonized system of classification and labelling of the UN (The Official Gazette of the RS, no. 64/10, 26/11, 5/12 and 105/2013)
- Regulation on preventive measures for safe and healthy work when exposed to chemicals (The Off. Gaz. of the RS 106/2009)
- Rulebook on closer conditions for keeping of hazardous chemical in retail facilities and manner of labelling of such facilities (The Official Gazette of the RS 31/2011 and 16/2012)
- List of classified substances (The Off. Gaz. of the RS, no. 48/14)
- Regulation EC 1907/2006 (REACH)

**Subsection 16.2. List
of abbreviations and
acronyms:**

ADNR European Agreement concerning the International Carriage of Dangerous Goods by inland Waterways
ADR European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS Chemical Abstract Service
CSR Chemical safety report
DNEL Derived No Effect Levels
EC no EC number, European Commission number
ECHA European Chemicals Agency
EC₅₀ half maximal effective concentration
IUCLID International Uniform Chemical Information Database
IMDG International Maritime Dangerous Goods
ICAO International Civil Aviation Organization
LC₅₀ Lethal concentration 50%
LD₅₀ Lethal Dose 50%
MAC Maximum allowable concentration
NOAEL No Observed Adverse Effect Level
NOEC No Observed Effect Concentration
OSHA Occupational Safety and Health Administration
PBT Persistence Bioaccumulation potential and Toxicity
PNEC Predicted No Effect Concentration
ppm parts per million
RID International Rule for Transport of Dangerous Substances by Railway
REACH Regulation (EC) no.1907/2006 concerning the registration, evaluation and authorisation of chemicals
STEL Short-Term Exposure Limit
TWA Time Weighted Averages
vPvB Very persistent and very bioaccumulative

**Subsection 16.3.
Literature
references and
sources of data:**

/ ECHA-European Chemicals Agency/
 /„IUCLID Dataset“ European Chemicals Bureau/
 /OECD Existing Chemicals Database /
 /Regulation on preventive measures for safe and healthy work when exposed to chemicals (The Off.Gaz. of the RS 106/2009)/
 /Transport regulations according to ADR, RID, IMDG and ADN including the amendments/

	<p>/ Occupational Medicine, prof.dr.Mirjana Arandelović and prof.dr.Jovica Jovanović, Faculty of medicine, University of Niš, 2009/ /Chemical Safety Report- Ammonium nitrate, 2015/ /ASSESSMENT OF AMMONIUM NITRATE BASED FERTILIZERS AS EZE IRRITANT FOR CLASSIFICATION PURPOSES,14. July 2011./ /LAUS GmbH/Phycher BIO Developpement: Straight nitrogen fertilizer KAN, Assesment od acute eze irritation, Stady No:IO-OCDE-PH-12/0484/</p>
Subsection 16.4. List of relevant hazard statements and precautionary statements:	<p><u>Hazard statements – physical hazards:</u> H272: May intensify fire; oxidizer</p> <p><u>Hazard statements – health hazards:</u> H319: Causes serious eye irritation</p>
Subsection 16.5. Advice on appropriate training for employees:	<p>Act in accordance with the applicable regulations regarding the occupational safety and health.</p>

The information indicated is based on the knowledge and experience up to the date of the compilation of the Safety Data Sheet. The purpose of this Safety Data Sheet is to highlight the precautionary and safety measures regarding this product.

"HIP-AZOTARA" d.o.o. Pancevo does not assume any responsibility for the information out of the scope of what is written here. The Safety Data Sheet shall not by any means be considered a guarantee for the composition, properties, effects and use of the product for certain purposes.

It is the responsibility of the user to inspect and examine the product in order to verify personally whether the product is suitable for a particular purpose. Furthermore, the user is responsible for handling, storage and use of this product in accordance with the applicable laws and regulations ensuring the occupational safety and health and environmental protection.

The information in this Safety Data Sheet refers exclusively to our products, and on condition that the products are not used together with the third parties' materials.