1. Identification of the substance / mixture and of the company / undertaking.

1.1. Produkt identifier:	**AdBlue**
1.2. Relevant identified uses of the substance or mixture and uses advised against:	AdBlue - 32,5% urea aqueous solution Not applicable
1.3. Details of the Supplier of the safety data sheet:	Manufacturer / Supplier: CrossChem SIA Adress:"Naftaluka", Olaines pagasts, Olaines novads, LV-2127 Telephone number.: +37126624000 E-mail: info@crosschem.lv Homepage: https://crosschem.lv E-mail address of competent person, responsible for the SDS: bas@crosschem.lv
1.4. Emergency telephone number:	State Fire and Rescue Service: **(+371) 112** Medical assistance: **(+371) 113** Toxicology and Sepsis Clinic, Poisoning and Drug Information Center: **(+371) 67042473; 67042468**

2. Hazards identification.

2.1. Classification of the substance or mixture: Classification according to Regulation (EC) No. 1272/2008 (CLP).
This mixture is not classified as dangerous under Regulation No.1272/2008.
2.2. Label elements.
Labelling according to Regulation (EC) No. 1272/2008 (CLP).
According to the CLP Regulation and the relevant national laws, the product does not require a label.

Hazard pictograms:	Not required.
Signal word:	Not required.
Hazard statements:	Not required.
Additional hazard symbols:	Not required.
Precautionary statements:	**P102** Keep out of reach of children. **P280** Wear protective gloves / protective clothing / eye protection / face protection. **P301+P312** IF SWALLOWED: call a POISON CENTER or doctor / physician IF you feel unwell; Precautionary statements. **P305+P351+P338** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. **P302+P352** IF ON SKIN: Wash with plenty of water and soap. **P401** Store away from food, drink and animal food.

P501 Dispose of contents / container in accordance to local and international regulations.

Supplemental Hazard information (EU): Not applicable.

2.3. Other hazards.

The product does not contain substances classified as PBT or vPvB.

3. Composition / information on ingredients.

Title	CAS Nr.	EC Nr.	REACH Nr.	Classification according to the Regulation (EK) Nr. 1272/2008	Conc. %
Urea	57-13-6	200-315-5	01-2119463277-33-XXXX	Not applicable	32,5

Substance (REACH): Not applicable.
Mixtures:

4. First aid measures.

4.1. Description of first aid measures.

General information: Remove contaminated, saturated clothing immediately. In case of accident or unwelness, seek medical advice immediately. Keep the victim calm. If the person is unconscious, place person in stable recovery position. Consult a physician. Show this safety data sheet to the doctor in attendance.

Following inhalation: Although the product is not classified as toxic, inhalation of vapor, spray or mist must be avoided. The product has a slight odor of ammonia. If inhaled, remove the person to fresh air. If breathing is difficult, administer oxygen. If not breathing, give artificial resuscitation (CPR). In every cases where there is doubt of person's life or if symptoms remain, seek medical advice.

Following skin contact: Wash the affected area thoroughly with soap and plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. If irritation remains, seek medical advice.

Following eye contact: Promptly flush eyes with water, continuing for at least 15 minutes, occasionally lifting the upper and lower eyelids, to ensure thorough rinsing. After rinsing eyes with water, rinse once more with physiological saline (0,9% NaCl) solution.

Remove contact lenses if possible and if safe to do. If irritation, redness or blinking persists, consult a doctor immediately.

Following ingestion: If the product has been swallowed, rinse mouth with water, do not induce vomiting. Keep affected person warm and treat for shock. If the person is conscious, give him/her small quantities of water to drink. Never introduce anything into the mouth of an unconscious person. If the person feels unwell, seek medical advice. During spontaneous vomiting hold the head of the casualty low with the body in a prone position in order to avoid aspiration of vomit.

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

Laboured breathing, cough, chest pain. Prolonged inhalation causes chronic inflammation of the respiratory organs. By introducing substance orally, large amounts cause gastrointestinal dysfunction and abdominal pain. Irritating to eyes (burning sensation); red eyes; dry skin; litchy skin; red skin.

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

Notes to doctor.

Treat symptomatically. Observation of vital functions. Measures against circulatory shock and convulsions maybe necessary. Provide the physician information about the substance / product, first aid measures and treatment already administered.

5. Firefighting measures.

5.1. Extinguishing media.

Suitable extinguishing media: Use the most efficient and the most suitable extinguishing agent for surroundings to extinguish the fire. All standard agents are acceptable: Water spray, water fog, chemical foam, dry fire powder, carbon dioxide (CO_2).

Unsuitable extinguishing media: Full water jet.

5.2. Special hazards arising from the substance or mixture.

Hazardous combustion products.

Not combustible but may decompose at high temperatures above 130°C. Urea decomposes to Biuret, Ammonia (NH_3), Nitrogen Oxides (NOx), Carbon Monoxide (CO) and Carbon dioxide (CO_2). In the case of lack of Oxygen, Hydrogen Cyanide (HCN) is formed. Product is not explosive. Short-term exposures to smoke and gases may lead to irreversible lung injury without early signs of symptoms.

5.3. Advice for firefighters.

Do not enter fire area without proper protective equipment, including respiratory protection. When the potential chemical hazard is unknown, in enclosed or confined spaces, a selfcontained breathing apparatus should be worn (SCBA). During thermal destruction, irritating and poisonous gases can be released, therefore use SCBA with a comprehensive facial mask, and protective fire-fighting clothing (including: fire helmet, overalls, pants, boots, gloves, eye and face protection.) must be worn. Fire fighter's clothing conforming to European standard EN469 provides a basic level of protection for chemical incidents and includes helmets, protective boots and gloves. Clothing not conforming to EN469 may not be suitable in any chemical incident. Use SCBA with a chemical protection suit only where personal (close) contact is likely to happen. Use SCBA with gas-tight suit when in close proximity to the substance or if its vapors is likely to arise.

5.4. Additional information.

Stay down-wind during firefighting. Promptly isolate the scene by removing all unauthorized persons from the area of the incident if there is a fire. A pressure increase will occur if containers are exposed to heat, therefore evaporation of water or decomposition of solution can result in rupture of container, it may burst. Cool containers with a cold water spray. If there is no risk, move the containers away from the heat source. Stop spill/release if it can be done with minimal risk. If possible, collect used extinguishing water separately, to prevent it from entering drains. Water mist may be useful in minimizing or dispersing vapors. If possible, collect used extinguishing water separately, to prevent it from entering drains.

6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

For non-emergency personnel:	Put on appropriate protective equipment (see Section 8.). Consult an emergency expert. Eliminate sources of ignition. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material The recommendations are the same as for emergency help providing staff.
For emergency responders:	Wear appropriate protective equipment (see Section 8.), to prevent contact with the substance and inhalation of fumes or mist. Ensure to supply adequate ventilation and fresh air in closed rooms. Eliminate sources of ignition and heat. Stop leak if possible, without risk. Isolate and evacuate the danger zone, reduce the presence of persons, who are not involved in the rescue operation. Particular danger of slipping on leaked/spilled product.

6.2. Environmental precautions.

Avoid contact of large quantities with soil or water courses. Do not allow large quantities of product to enter drains, surface waters, ground water, and in case of accidental spill into the water supply, inform local authorities immediately, to stop the water supply and use. Local authorities should be advised if significant spillages cannot be contained.

6.3. Methods and material for containment and cleaning up.

For containment: Ensure adequate ventilation is provided. Clogging or cover drains. In the event of a major leak, stop the flow of product by using: booms and pads, which can be found in spill kit if, it is safe to do. Scoop as much product as possible in to tight and secure containers. Absorb remains in vermiculite, dry sand, sawdust, silica gel or any absorbent non-combustile material, place the used absorbent in closed, secure and suitable containers. After containing the substance, rinse the area with plenty of water.

For cleaning up: The affected area should be rinsed and if necessary washed with water. Dispose of the material collected in secure containers according to regulations in section 13. After containing spill, clean up remains by diluting with water and mop up. In the case of small spills, wipe the surface with non combustile absorbent material, clean surface with water and then clean with general cleaning products afterwards.

6.4. Other information.
See Section 8 for personal protective equipment and Section 13 for waste disposal.

7. Handling and storage.

7.1. Precautions for safe handling.

Protective measures: Use only in dry, well ventilated areas and away from direct sunlight. Handle opened container with care, close after use. Avoid splashing. Handle in accordance with good industrial hygiene and safety procedures. Avoid contact with the eyes. Avoid repeated or prolonged contact with skin and eyes. Avoid spilling or spraying in enclosed spaces. Use appropriate protective equipment: protective clothing, gloves, goggles and dust mask if necessary (see Section 8.).

Measures to prevent fire: This substance is not flammable, special fire protection measures are not required. Follow preventative fire protection regulations. Do not allow any pump to run dry or over-heat e.g. due to blockage or closed valve in the lines, it may result in pumping against a dead-end. Under such conditions if over-

	heating occurs this may cause vaporization and possible decomposition of the product. This can create pressure build-up in the pump and, if unchecked, could lead to an explosion. Ensure that the pump is used correctly according to the manufacturers instructions at all times when pumping the product. Take precautionary measures against static discharges. Earth all parts which can be electrically charged. Transfer at a slow speed to avoid the creation of electrostatic charges. Use only in well ventilated areas. Work clothing that becomes wet should be removed.
Measures to prevent aerosol and dust generation:	Avoid spraying in enclosed spaces. Do not transport with using compressed air.
Measures to protect the environment:	When using a product, if a large product vapor concentration occours in enclosed areas, air ventilation systems should be equipped with filters. Check emission limit values, if the values are exceeded a purification of waste gases is necessary. Clean your shoes at special cleaning points after exiting storage or packing area.
Advice on general occupational hygiene:	Provide adequate ventilation in areas where mist or aerosol is formed. Avoid contact with eyes and skin. Provide easy access to water supply and eye wash facilities, show where to locate those. Wash your hands and face with mild soap and water after use, before breaks, at the end of the working day. Do not eat, drink or smoke when using the product and in areas where product is handled, stored and processed. Remove contaminated clothing and protective equipment before entering eating areas. “NO SMOKING” signs should be placed in the working area. Regular cleaning of equipment, work area and clothing is recommended. Use protective equipment while cleaning if necessary. Do not store with food, drinks or animal food. Work clothing that becomes wet should be immediately removed.

7.2 Conditions for safe storage, including any incompatibilities.

Technical measures and storage conditions:	Do not store close to heat sources, sparks or fire. Do not store in temperatures below -10°C and above +25°C. Protect from freezing. Do not store close to heat sources or fire. Store away from direct sunlight. Protect containers against physical damage. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product exceeds exposure limits, use process enclosures: local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits. Containers have to be labelled clearly and permanently.

	Ground containers, tanks and transfer equipment to eliminate static electric discharge.
Packaging materials:	Suitable packing material: Containers manufactured of high alloyed austenitic Cr-Ni, Cr-Ni-Mo steels; titanium; Ni-Mo Cr-Mn-Cu-Si-Fe alloys, polyethylene, polypropylene, polyisobutylene, polyfluoroethylene (PFE), perfluoroalkoxy alkane (PFA), polytetrafluoroethylene (PTFE), copolymers (vinylidene fluorides(PVDF) and hexafluoropropylenes – viton - (HFP)). Non suitable packaging materials: Copper and its alloys; galvanised steel containers; carbon (non alloyed or low-alloy) steels; aluminum and its alloys; magnesium and its alloys; paper; glass. Product can be packed in the package chosen by the buying customer, as long as it ensures safe transportation and storage of the product. Test or get manufacturers recommendation of material prior to use.
Requirements for storage rooms and vessels:	Store product protected from direct sunlight in a dry, cool and well-ventilated area. Floors must be leak-proof or covered with insulation material. It is recommended to use anti-spill container under the IBC containers or drums. Contact local authorities for further information on storage requirements. Containers that have been opened must be carefully reinforced and kept upright to prevent leakage. Keep containers tightly closed when not in use. Keep containers protected from physical damage. Check regularly for leaks. Keep preferably in the original container. Do not remove the hazard labels of the containers (even if they are empty). Do not store in unlabeled containers. Store in the original container as much as possible. Containers may be hazardous when empty. Since emptied containers retain product residue follow all MSDS and label warnings even after container is emptied. Take precautionary measures against static discharge. Ground container and filling equipment.
Storage class:	Not applicable.
Further information on storage conditions:	Product has a shelf life of 1 year, if in unopened manufacturers packing, if stored in a cool and dry location and away from direct sunlight. Store out of the reach of children. Storage with the following substances is prohibited: Pharmaceuticals, foods, animal feeds, infectious and radioactive substances, explosive substances, gases, strong oxidizing substances of storage class 5.1A. Only products and substances of the same storage class can be stored together. The product should not be stored with substances with which hazardous chemical reactions are possible. Product is NO_x reducing agent. Product is used to inject in exhaust systems of diesel engines before a

selective catalytic converter. Moreover as anti coniferous diseases (root sponges) spread.

8. Control parameters.

8.1. Management parameters.

Limitation of permissible exposure in the workplace.

Substance	CAS Nr.	OEL 8h	Short term, 15 min	Base
Urea	57-13-6	10 mg/m3	Not specified	Occupational health and safety requirements for exposure to chemicals at work spaces

CDNEL values of exposure to human health.

The product is aqueous urea solution with additives. DNEL of the product is not determined. DNEL values, physicochemical properties of the pure substance (Urea) contained in product, which could have the most negative effect, according to REACH dossier, is provided.

Mode of exposure	Type of exposure	DNEL value (workers)	DNEL value (public consumers)	The most negative physicochemical effect
Inhalation	Acute effect, systemic	(iii)	(iii)	Not applicable
Inhalation	Acute effect, local	(iii)	(iii)	Not applicable
Inhalation	Chronic effect, systemic	292 mg/m³	125 mg/m³	Toxicity
Inhalation	Chronic effect, local	292 mg/m³	125 mg/m³	Toxicity
Dermal	Acute effect systemic	(iii)	(iii)	Not applicable
Dermal	Acute effect, local	(iii)	(iii)	Not applicable
Dermal	Chronic effect, systemic	580 mg/kg, bw/day	580 mg/kg, bw/day	Repeated dose toxicity
Dermal	Chronic effect, local	580 mg/kg, bw/day	580 mg/kg, bw/day	Toxicity
Through eyes	Acute effect, local	(iii)	(iii)	Not applicable
Oral	Acute effect, systemic	(ii)	(iii)	Not applicable
Oral	Acute effect, local	(ii)	(iii)	Not applicable
Oral	Chronic effect, systemic	(ii)	42 mg/kg, bw/day	Repeated dose toxicity
Oral	Chronic effect, local	(ii)	42 mg/kg, bw/day	Toxicity

i) hazard identified but no DNEL available; ii) no exposure expected, iii) no hazard identified.

Predicted no effect contrentation values.

PNEC of the product is not determined. PNEC of pure urea, according to urea REACH dossier, is provided.

PNEC of the product is not determined. PNEC of pure urea, according to urea REACH dossier, is provided.	**PNEC value**
Fresh water	0,47mg/L; periodic exposure – PNEC value not available
Freshwater sediments	(ii)

PNEC of the product is not determined. PNEC of pure urea, according to urea REACH dossier, is provided.	**PNEC value**
Marine water	0,47mg/L; periodic exposure – PNEC value not available
Marine sediments	(ii)
Food chain	(iii)
Microorganisms in sewage treatment	The hazard is not known
Soil (agricultural)	No hazard to soil
Air	The hazard is not known

ii) no exposure expected; iii) no hazard identified.

8.2. Exposure controls.

Appropriate engineering controls: Good general ventilation should be provided to control worker exposure to airborne contaminants of vapor or mists, especially in confined spaces. Adhere to good industrial hygine rules when using or handling the product. Provide access to water, hand-wash facilities and showers, as well as easy access to eye wash facility. Do not use tools that can generate sparks and flames. Avoid static electricity, use tools and containers that are grounded. Do not expose container to mechanical damage. Emissions from ventilation or work process equipment should be recommended to checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Personal protection equipment.

Eye and face protection: Use eye and face accessories that have been tested and approved in accordance with relevant standards such as: NIOSH (US) or EN 166 (EU). It is recommended to use polycarbonate safety glasses, goggles, tightly fitting goggles or face shield to protect eyes from splashes or fine mist.

Body protection: Choose the type of body protection according to the situation, concentration and quantity of the hazardous substance, and the specific concentration at the workplace. Workwear must comply with EN ISO 13688 standard and special work shoes must comply with EN ISO 20347:2012 standard. Wear an apron or a lab coat. It is recommended to use impervious and antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the product at the specific workplace.

Respiratory protection: Use dust mask N95 (US) or P1 (EN 143) or P2 to protect against small amounts of product aerosol in the air. Where risk assessment shows, air-purifying respirators are appropriate, use a half-face or full face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges

for ammonia vapour, as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face air supplied respirator. Use respirators and accessories tested and approved in accordance with relevant national and international standards, NIOSH (USA) or CEN (EU).

Skin protection: Skin protection creams do not protect as effectively against the product as protective gloves. Gloves should be inspected before use. Use appropriate glove removal techniques (without touching the inside of the glove) to avoid contact with the product. Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough. Rinse and remove gloves immediately after use. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practice. Wash and dry your hands. The gloves used must be chemically resistant in accordance with EN 420, EN ISO 374-1 and must be mechanically resistant in accordance with EN 388 standard. Protective gloves must be made of one of the materials, with the relevant specifications listed in the table below:

Glove material	Glove Thickness (mm)	Penetration time (min)
Buthyl rubber	0,50	>480
Nitrile rubber / Nitrile latex	0,11	>480
Fluorocarbon rubber	0,40	>480
Polychloroprene	0,50	>480
Natural rubber / Natural latex	0,50	>480
Polyvinyl chloride	0,50	>480

8.3. Environmental exposure controls.

Do not allow product to enter drains, surface waters or ground waters. See Section 6. for substance related measures to prevent exposure to environment.

9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance: Colorless liquid at 20°C and a pressure of 1013 hPa.
Smell: Slight ammonia odour may occour.
Odour threshold: Mild ammonia odor could be felt in a small quantity of product.
pH: 9,0-9,5 (32% aqueous solution) 20°C.
Melting/freezing point: -11°C up to -11,5°C.
Initial boiling point and boiling range: At about 100°C .

Flash point:	Non Flammable.
Evaporation rate:	Non Flammable.
Flammability:	Non Flammable.
Upper/lower flammability or explosive limits:	Non-flammable. Non-combustible.
Vapour pressure:	22 - 23 mbar at 20°C.
Vapour density:	Not determined.
Relative density:	1,087 – 1,094 kg/L 20°C.
Solubility:	Miscible with water.
Partition coefficient n-octanol/water:	(Log Kow (Log Pow)UREA): -2,11, 20°C.
Auto-ignition temperature:	Not specified.
Decomposition temperature:	>132°C.
Viscosity:	Not determined.
Oxidation properties	Product is not oxidising.

10. Stability and reactivity.

10.1 Reactivity.
Stable under regular conditions of transportation and use (see Section 7. "Handling and Storage").
10.2. Chemical stability.
Stable under storage, transportation and using conditions at normal ambient temperatures (-10°C to +25°C), (see Section 7. "Handling and Storage").
10.3. Possibility of hazardous reactions.
No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid.
Environmental temperature lower than crystallization temperature (-10°C and higher than 30°C should be avoided (hydrolysis takes place). Any entry material will contaminate the product and could not be used for its intended purpose. Avoid direct sunlight, heat, high temperatuires, flames, sparks and incompatible materials. Protect from freezing. Do not damage product containers.
10.5. Incompatible materials.
Strong acids (Nitric acid); Strong alkalines; Strong oxidizers; Calcium or Sodium Hypochlorites; Halogens, sodium nitrite, nitrates, phosphorus pentachloride and nitrosyl or gallium perchlorate. Do not store together with explosive substances (storage class 4.1A); flammable solid substances or desensitized substances (storage class 4.1B); pyrophoric substances; substances liberating flammable gases in contact with water; strongly oxidizing substances (storage class 5.1A); non combustible acutely toxic substances (storage class 6.1B).
10.6. Hazardous decomposition products.

Ammonia (NH_3), Carbon monoxide (CO), Carbon dioxide (CO_2), Nitrogen oxides (NO_x). See. Section 5.2. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological information.

11.1. Information on toxicological effects.

Acute toxicity studies of the product are not available. As the product is a urea aqueous solution, information on acute toxicity, according to REACH dossier, is provided of pure urea.

Acute oral toxicity: LD50 (rat): 15000 mg/kg. Method: OECD Test 423.

Acute toxicity intravenously: LC50 (rat): 5300-5400 mg/kg mg/L. Metod: OECD Test 402.

Acute dermal toxicity: LD50 (rat): 8200-9400 mg/kg. Methode: OECD Tesa 402.

Skin corrosion/irritation

Type of exposure/duration: 0,5 g of moistened test substance was applied to a spot of shaved skin.

Species: Rabbit.

Rating: Non corrosive, non irritant.

Method: OECD test 404.

Serious eye damage/irritation.

Type of exposure/duration: In right eye conjunctival of each rabbit, a dose of 0,1 ml urea solution was administered.

Species: Rabbit.

Rating: Severe redness and slight swelling of the conjunctiva. All symptoms disappeared after 8 days.

Method: OECD testa 405.

Respiratory or skin sensitisation: No data available.

Germ cell mutagenicity: No data available.

Carcinogenicity: No data available.

Reproductive toxicity: No data available.

STOT-single exposure: No data available.

STOT-repeated exposure: No data available.

12. Ecological information.

12.1. Toxicity.

Studies of ecological information of the product are not available. As the product is a urea aqueous solution, information about ecological impact, according to REACH dossier, is provided of pure urea.

Acute (short-term) toxicity.

Target parameter	Value	Species	Method	Exposure time	Remark
LC50	>6810 mg/L	Fish - Leuciscus idus	OECD 203	92 h	IUCLID
LC50	>10000 mg/L	Fish - Leuciscus idus	OECD 203	48 h	ECHA
LC50	14 241 mg/L	Water invertebrates - Herisoma trivolvis	OECD 202	24 h	ECHA
EC50	47 mg/L	Algae - Microcystis aeruginosa	OECD 201	192 h	ECHA
LC50	60000 mg/L	Mosquitoes - Aedes aegypti	Not applicable	4 h	ECHA

Chronic (long-term) toxicity.

Target parameter	Value	Species	Method	Exposure time	Remark
LC50	>10000 mg/L	Algae - Scenedesmus quadricauda	OECD 201	7 days	ECHA

12.2. Persistence and degradability.

Biodegradation: The main biodegradation of urea is its enzymatic mineralization. In the absence of microorganisms, the urea hydrolyses very slowly to produce ammonium carbamate, which decomposes further to form ammonia and carbon dioxide. Hydrolysis of urea is catalyzed by elevated temperatures, alkalinity and the presence of urease, urease in soil and water. Carbamide is biodegradable: 4 mg/L 1h at 20°C /68°F. Zahn-Wellens-Test (OECD 302B) - 400 mg/L: 3h: 2%, 7d: 52%, 14d: 85%, 16d: 96%. Easily biodegradable (after 16 days). For the results of studies of urea biodegradation, see Toxnet, ECHA.

Other information:

12.3. Bioaccumulative potential.

Partition coefficient n-octanol / water (log Kow): -2,11 (20 °C) (Urea).

12.4. Mobility in soil.

No data.

12.5. Results of PBT and vPvB assessment.

In accordance with Regulation (EC) No 1907/2006, Annex XIII, the urea does not meet the PBT and vPvB criteria and is not a PBT or vPvB substance. No PBT and vPvB assessment has been conducted since product is not in the list of (EC) No 1907/2006, Annex XIII.

12.6. Additional information.

Large amounts of the product in water tanks can be harmful to fish and aquatic organisms.

13. Disposal considerations.

13.1. Waste treatment methods.

Product / Packaging disposal:	In accordance to annex III of "Commission notice on technical guidance on the classification of waste" (2018/C 124/01), the product, without any impurities, is not classified as hazardous waste. In accordance to Commission decision (2014/955/EU) and Republic of Latvia Cabinet of Ministers Regulation No. 302, the product, without any impurities, is not classified as hazardous waste (see EWC codes). Collection of small and medium amounts of product: Place in a collection container for halogen free aqueous solutions. Collection vessels must be clearly labelled with a systematic description of their contents. Store the vessels in a well ventilated location away from direct exposure of sun. Empty the product cans or drums, free them from as much of the product as possible. The packing needs to be cleaned. In accordance with Regulation (EC) No. 1357/2014, empty packaging, clean from product, is not classified as hazardous waste. Re-use or dispose clean packing material. If packing contains product or is contaminated, or if packing cannot be cleaned, dispose of it as unused product. Dispose of product and its packaging safely in accordance with regional and national environmental regulations. Waste from product packaging must be handed over to waste management companies. Contact nearest waste disposal facility for further instructions.
Waste codes / waste designations according to EWC:	According to the European Waste Catalog (EWC) and European List of Waste (LoW), the applicable codes for product are: 15 01 02 - Plastic packaging (MNH – mirror non hazardous).
Sewage disposal-relevant information:	Waste should not be disposed of by release into sewers.
Other disposal recommendations:	It is the responsibility of the waste treatment company to make a final decision on the relevant waste management, disposal or recycling method in accordance with regional, national or European legislation and possible adaptation to local conditions.

14. Transport information.

14.1. UN Number.

ADR:	Not applicable.
IMDG:	Not applicable.
IATA:	Not applicable.

14.2. UN proper shipping name.

ADR: Not applicable.
IMDG: Not applicable.
IATA: Not applicable.

14.3. Transport hazard class(es).

ADR: Not applicable.
IMDG: Not applicable.
IATA: Not applicable.

14.4. Packing group.

ADR: Not applicable.
IMDG: Not applicable.
IATA: Not applicable.

14.5. Environmental hazards.

ADR: Not applicable.
IMDG: Not applicable.

14.6. Special precautions for users.
Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code.
Not applicable.

15. Regulatory information.

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

EU regulations.

- Regulation (EC) No. 1907/2006 of the European Parliament and Council of 18. December 2006 on Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).
- Regulation (EC) No. 1272/2008 - classification, labelling and packaging of substances and mixtures (CLP).
- Commission regulation (EU) No. 1357/2014 of 18 December 2014 replacing Annex III to Directive 2008/98/EC of the European Parliament and of the Council on waste and repealing certain Directives. Regulation 649/2012/EU concerning the export and import of hazardous chemicals (PIC).
- Regulation 850/2004/EC on persistent organic pollutants (POP). European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR).
- European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN).
- Commission notice on technical guidance on the classification of waste 2018/C 124/01.

- Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives.
- Regulation (EC) No. 166/2006 of the European Parliament and of the Council of 18 January 2006 concerning the establishment of a European Pollutant Release and Transfer Register and amending Council Directives 91/689/EEC and 96/61/EC.
- 2014/955/EU: Commission Decision of 18 December 2014 amending Decision 2000/532/EC on the list of waste pursuant to Directive 2008/98/EC of the European Parliament and of the Council Text .
- Regulations concerning the International Carriage of Dangerous Goods by Rail (RID).

International regulations.

- International Maritime Dangerous Goods Code (IMDG).
- Internationall Aviation Transport Association regulations (IATA).
- International Convention for the Prevention of Pollution from Ships (MARPOL 73/78).
- International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code).
- Chemical Substances Law.

National regulations (Latvia).

- Republic of Latvia Cabinet of Ministers Regulation No. 795: “Procedures for Registration of Chemical Substances and Mixtures and Their Database”.
- Republic of Latvia Cabinet of Ministers Regulation No. 325: “Labour Protection Requirements when Coming in Contact with Chemical Substances at Workplaces”.
- Republic of Latvia Cabinet of Ministers Regulation No. 302: “Provisions regarding the waste classification and the characteristics rendering the hazardous waste”.
- Republic of Latvia Cabinet of Ministers Regulation No. 494: “Waste shipment accounting procedures”; - Labour Protection Law.
- LVS EN 149 + A1:2009 - Standard for disposable dust respirators with or without valve according to which they are labeled with FFP1, FFP2 or FFP3 depending on protection class.
- LVS EN 143:2002 + AC/AC:2005 - Standard for dust filters P1, P2, P3 for use with half masks and full face masks.
- LVS EN 14387:2004+A1:2008 - Respiratory protective devices. Gas filter(s) and combined filter(s). Requirements, testing, marking.
- LVS EN 141:2002 - Standard for gas and combined filters;
- EN 420 – “The standard of glove safety”.
- EN469 – “Protective clothing for firefighters - Requirements for firefighting protective clothing”.
- LVS EN 388 - "Protective gloves against mechanical effects".
- LVS EN ISO 374-1 – "Protective gloves gainst dangerous chemicals and microorganisms".
- LVS EN 166:2002 – “Individual eye protection. Specifications”.
- LVS EN 340:1993 – “Protective clothing - General requirements.
- LVS EN ISO 20347:2012 – “Personal protective equipment - Occupational footwear”.

15.2. Chemical safety assessment.

No Chemical Safety Assessment has been carried out for this mixture.

16. Other information.

Symbolic Explanation / Abbreviations:

AER	Occupational exposure limit value.
DNEL	Derived no-effect level.
PNEC	Estimated no-effect concentration(s).
LD50	Lethal dose for 50% of the test population (average lethal
OECD	dose). Economic Cooperation and Development Organization.
PPM	One millionth.
EC50	Mean effective concentration.
LC10	A lethal dose that kills 10% of the test population.
EC10	Effective concentration at which adverse effects would occur in 10% of test organisms.
LDL0	The lowest lethal dose.
BCF	Bio concentration factor.
PBT/vPvB	(very) Persistent, (very) bioaccumulative and / or toxic
ICAO-DGR	chemicals. International Air Transport Association Dangerous Goods Regulations.
ppm	Parts per million.
BCF	Bioconcentration factor.
The most important bibliographic references and data sources:	Toxnet, ECHA, GESTIS substance database.
Other information:	Method 4, used to classify product, is referred to in Article 9 of Regulation (EC) No 1272/2008: 'Where only the information referred to in Article 6 (5) is available, manufacturers, importers and downstream users shall use the interconnection principles set out in point 1.1.3 of Annex I for evaluation purposes. and in each section in Parts 3 and 4 of Annex.

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