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SAFETY DATA SHEET (MSDS)	Logo
MADIN RADIATOR FLUSH	

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

1.1 Product identifier

Product Name: Madin Radiator Flush

Trade name: Madin Radiator Flush

Other name (not scientific name): Cooling System Cleaner

Manufacturer: Madin Chem JSC

Address: Pho Noi A Industrial Park, Van Lam, Hung Yen, Viet Nam

HCM OFFICE: 11th floor, 728 730 Vo Van Kiet Street, Ward 01, District 5, HCMC, Vietnam VP

HN: 706 Nguyen Khoai St, Thanh Tri Ward, Hoang Mai District, Ha Noi City, Vietnam

Phone: +84886634634

Purpose of Use: Remove sludge and rust, clean, and restore the radiator

1.2 Relevant identified uses of the mixture and uses advised against

1.2.1 Uses:

Industrial use: - Industrial use [SU23]: Cooling system cleaning.

1.2.2 Uses advised against: None identified.

1.3 Details of the supplier of the safety data sheet

Manufacturer: Madin Chem JSC,

Address: Pho Noi A Industrial Park, Van Lam, Hung Yen, Viet Nam

HCM OFFICE: 11th floor, 728 730 Vo Van Kiet Street, Ward 01, District 5, HCMC, Vietnam

VP HN: 706 Nguyen Khoai St, Thanh Tri Ward, Hoang Mai District, Ha Noi City, Vietnam

Phone: +84886634634

Country: Vietnam

Website: madinchem.com

Person responsible for the Safety Data Sheet (with e-mail address): Tien Huynh, qc@madin.vn

1.4 Emergency telephone number

Please contact: Poison Information and Control Office in Ha Noi, Vietnam by phone +84 888718778

Helpdesk services work: Office Hours in GMT+7: 08:00AM-05:00PM

Other remarks (language in which assistance is provided): assistance is provided in English, Vietnamese.

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance

Classification according to Regulation (EC) No 1272/2008:

Acute toxicity - Category 4 - Oral - H302

Skin irritation - Category 2 - H315

Eye irritation - Category 2 - H319

Specific target organ toxicity - repeated exposure - Category 3 -

May cause respiratory irritation - H335

2.2 Label elements

Hazard pictograms:



Signal word: WARNING

Hazard statements:

H302	Harmful if swallowed.
H335	May cause respiratory irritation
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H373	May cause damage to organs (Kidney) through prolonged or repeated exposure if swallowed

Precautionary statements:

P260	Do not breathe mist or vapours.
P264	Wash skin thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area
P280	Wear protective gloves/ eye protection/ face protection.
P314	Get medical advice/ attention if you feel unwell.
P337 + P313	If eye irritation persists: Get medical advice/ attention.
P501	Dispose of contents and/or container to an approved waste disposal plant

2.3 Other hazards

None

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Composition

Component	Cas No.	Chemical Formula	Concentration %
Citric acid	77-92-9	$C_6H_8O_7$	< 14
EDTA-Na	6381-92-6	$C_{10}H_{18}N_2O_{10}Na$	< 0.5
Sodium Benzoate	532-32-1	$C_7H_5O_2Na$	< 1,5
Nước EDI	7732-18-5	H_2O	< 85

3.2. Mixtures

According to REACH Regulation (EC) No 1907/2006, the product is a multi-component mixture.

SECTION 4. FIRST AID MEASURES

4.1 Description of necessary first aid measures

Eye contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Check for and remove any contact lenses. Get medical attention if symptoms occur.

4.1.1. General information

The material can get through: the respiratory tract, in contact with skin, eyes, ingestion.

4.1.2. Inhalation: Remove the victim to fresh air. If breathing has stopped administer artificial respiration. If breathing is difficult, have medical personnel administer oxygen. Get medical attention.

4.1.3. Skin contact: Remove contaminated clothing. Immediately wash contacted area thoroughly with soap and water. If irritation persists, get medical attention

4.1.4. Eye contact: Immediately flush eyes with large amounts of water for 15 minutes. Get medical attention if irritation persists

4.1.5. Ingestion: Seek immediate medical attention. Immediately call local poison control center or go to an emergency department. Never give anything by mouth to or induce vomiting in an unconscious or drowsy person.

4.1.6. Individual protection measures recommended for first-aiders: Vomiting and then aspirating into the lungs can lead to chemical pneumonitis and pulmonary edema, a potentially fatal condition

4.2 Most important symptoms/effects, acute and delayed

May cause eye irritation. Inhalation of mists may cause nose and throat irritation and nervous system effects. Ingestion may cause abdominal discomfort or pain, nausea, vomiting, dizziness, drowsiness, malaise, blurring of vision, irritability, back pain, decrease in urine output, kidney failure, and central nervous system effects

4.3 Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician: Treatment should in general be symptomatic and directed to relieving any effects

Specific treatments: No specific treatment

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training

SECTION 5. FIREFIGHTING MEASURES

5.1 Suitable Extinguishing media

In case of fire, use foam, dry chemical or carbon dioxide extinguisher or spray

5.2 Special hazards arising from the substance or mixture

A solid stream of water or foam directed into hot, burning liquid can cause frothing. Burning may produce carbon monoxide and carbon dioxide

5.3 Advice for firefighters

Special protective actions for fire-fighters: No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire.

Special protective equipment for fire-fighters: Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment. Floors may be slippery; use care to avoid falling

6.1.2. For emergency responders: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air)

6.3 Methods and material for containment and cleaning up

Small spill: Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill: Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor.

6.4 Reference to other sections

See section 8 for personal protective equipment and section 13 for waste disposal

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Harmful or Fatal if Swallowed. Avoid eye and prolonged or repeated skin contact. Avoid breathing vapors or mists. Wash exposed skin thoroughly with soap and water after use. Do not store in opened or unlabeled containers. Keep container away from open flames and excessive heat. Do not reuse empty containers unless properly cleaned. Empty containers retain product residue and may be dangerous. Do not cut, weld, drill, etc. containers, even empty. Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into vacuum equipment, may result in ignitions without any obvious ignition sources. Published "autoignition" or "ignition" temperatures cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Use of this product in elevated temperature applications should be thoroughly evaluated to assure safe operating conditions

7.2 Conditions for safe storage, including any incompatibilities

Store away from excessive heat and oxidizers.

Incompatible packaging materials: Paper, glass, carbon steel (non-alloyed or low-alloyed), copper and its alloys, zinc (galvanized steel), silver alloys, aluminum and its alloys, magnesium and its alloys, and metals containing nickel.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.1 no other specific uses are stipulated

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

- **Occupational Exposure Limits (OELs) in air:** Not assigned.
- **Biological Limit Values:** Not assigned.
- **PNECs and DNELs thresholds:** (For Citric acid) No actual DNEL for systemic toxicity can be derived. Local effects, specifically eye irritation, should be considered.

8.2 Exposure controls

Exposure controls: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

Individual protection measures:

Eye/face protection: Use safety glasses (with side shields). Safety glasses (with side shields) should be consistent with EN 166 or equivalent. If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles. Chemical goggles should be consistent with EN 166 or equivalent. If exposure causes eye discomfort, use a full-face respirator (meeting standard EN 136) with organic vapor cartridge (meeting standard EN 14387).

Skin protection:

Hand protection: Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur. Use chemical resistant gloves classified under Standard EN374: Protective gloves against chemicals and micro-organisms. Use gloves with insulation for thermal protection (EN 407), when needed. If hands are cut or scratched, use gloves chemically resistant to this material even for brief exposures. Examples of preferred glove barrier materials include: Natural rubber ("latex"). Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl alcohol ("PVA"). Polyvinyl chloride ("PVC" or "vinyl"). Examples of acceptable glove barrier materials include: Neoprene. When prolonged or frequently repeated contact may occur, a glove with a protection class of 6 (breakthrough time greater than 480 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 2 or higher (breakthrough time greater than 30 minutes according to EN 374) is recommended. Glove thickness alone is not a good indicator of the level of protection a glove provides against a chemical substance as this level of protection is also highly dependent on the specific composition of the material that the glove is fabricated from. The thickness of the glove must, depending on model and type of material, generally be more than 0.35 mm to offer sufficient protection for prolonged and frequent contact with the substance. As an exception to this general rule it is known that multilayer laminate gloves may offer prolonged protection at thicknesses less than 0.35 mm. Other glove materials with a thickness of less than 0.35 mm may offer sufficient protection when only brief contact is expected. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into

account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Other protection:

When prolonged or frequently repeated contact could occur, use protective clothing chemically resistant to this material. Selection of specific items such as faceshield, boots, apron, or full body suit will depend on the task. When handling hot material, protect skin from thermal burns as well as from skin absorption.

Respiratory protection:

Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions, no respiratory protection should be needed; however, if material is heated or sprayed, use an approved air-purifying respirator. Use the following CE approved air-purifying respirator: Organic vapor cartridge with a particulate pre-filter, type AP2 (meeting standard EN 14387).

Environmental exposure controls See SECTION 7: Handling and storage and SECTION 13: Disposal considerations for measures to prevent excessive environmental exposure during use and waste disposal.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties.

Appearance	Liquid
Color	Colorless to slightly yellowish
Odor	Characteristic odor
Odor threshold	Not available.
pH	3 - 5
Melting point/freezing point	- 3°C
Initial boiling point and boiling range:	>100°C
Flash point:	Not available.
Evaporation rate:	Not available.
Flammability (solid, gas):	Not applicable.
Lower explosion limit:	Not determined
Upper explosion limit:	Not determined
Vapor pressure:	Not available.
Vapor density:	Not available.
Relative Vapor Density (air = 1) :	>1 Literature
Relative Density (water = 1):	1.04 – 1.05
Solubility (ies):	Infinitely soluble in water
Partition coefficient: n-oktanol/water:	Information is not available.
Auto-ignition temperature:	Not available.
Decomposition temperature:	>170 °C.
Viscosity:	3.0 mPas at 25 °C
Explosive properties:	Information is not available.
Oxidizing properties:	Information is not available.

9.2 Other information

None

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity

Stable under regular conditions (see section 7, handling and storage)

10.2 Chemical stability

Stable under regular handling and storage conditions

10.3 Possibility of hazardous reactions

Polymerization will not occur

May react with: Metals, oxidizing agents, bases, reducing agents.

10.4 Conditions to avoid

Exposure to elevated temperatures can cause product to decompose. Generation of gas during decomposition can cause pressure in closed systems

10.5 Incompatible materials

Metals

10.6 Hazardous decomposition products

Decomposition products depend upon temperature, air supply and the presence of other materials.. Decomposition products can include and are not limited to:. Aldehydes.. Alcohols.. Ethers

SECTION 11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Information on hazard classes as defined in Regulation (EC) No 1272/2008 Information on likely routes of exposure

ACUTE HAZARDS:

Acute toxicity data is not available for this product. As the product is a diluted solution of citric acid, acute toxicity information is provided based on the REACH dossier.

Human toxicity information: No data available

Animal toxicity effects:

	Dose / Exposure Concentration	Route	Method	Symptoms / Delayed Effects	Notes
Acute Oral Toxicity	LD50: 111,700 mg/kg body weight (Male)	Rat	OECD 401	Negative effects not established	Direct ATE. Validated with reliable data.
Acute Dermal Toxicity	Data not available				
Acute Inhalation Toxicity (Vapor)	Data not available				

Other Information: Data not available.

Assessment/Classification:

- **Skin Corrosion and/or Irritation:** The product does not meet the classification criteria according to Regulation (EC) No. 1272/2008. According to REACH dossiers, citric acid has been shown to have very low acute toxicity via dermal and intravenous routes in rats and rabbits. Acute dermal toxicity testing is not scientifically justified and is avoided for human welfare reasons.
- **Eye Irritation**: The product does not meet the classification criteria according to Regulation (EC) No. 1272/2008. Studies on rabbits have indicated that citric acid causes serious eye irritation. Based on medical data regarding incidents involving citric acid reported by manufacturers, it is understood that citric acid is classified as an irritant to humans (Source: REACH registration dossier).
- **Respiratory Sensitization:** No data available.

Mutagenicity: Based on the results of "Ames" studies with various concentrations of citric acid to date (negative study results), it is understood that citric acid does not have mutagenic effects.

Carcinogenicity: No data available.

Reproductive Toxicity: No data available.

Specific Target Organ Toxicity (STOT) - Single Exposure: Inhalation - May cause respiratory irritation.

Specific Target Organ Toxicity (STOT) - Repeated Exposure: No data available.

Aspiration Hazard: No data available.

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity

In drinking water areas, the maximum allowable concentration of citric acid must not exceed the organic matter limit established by calculating the potential biochemical concentration (PBC) and dissolved oxygen levels. In fishery water bodies, the maximum allowable concentration of urea is 100 mg/L.

Toxicity for fish

Exposure dose / concentration	Test duration	The name of the organism used in the test	Results	Method
LC50: 440-760mg/l	96 h	Leuciscus idus	Low toxicity level	OECD 203

Toxicity to aquatic invertebrates (short-term effects)

Exposure dose / concentration	Test duration	The name of the organism used in the test	Results	Method
EC50: > 120mg mg / l	72 h	Daphnia magna	Low toxicity level	OECD 202
EC5: - > 10,000 mg/l	16h	Pseudomonas putida	Low toxicity level	OECD 202

Toxicity to aquatic invertebrates (long-term effects): No data available.

Toxicity to algae and aquatic plants:

Exposure dose / concentration	Test duration	The name of the organism used in the test	Results	Method
EC5: 485 mg/l	72h	E.sulcatum	Low toxicity level	OECD 202
IC5: > 80 mg/l	8 days	Algae	Low toxicity level	OECD 202

12.2 Persistence and degradability

Biodegradability: Result: 98% - Readily eliminated from water (OECD Test Guideline 302B)

Biochemical Oxygen Demand (BOD): 481 mg/g.

Chemical Oxygen Demand (COD): 685 mg/g.

Theoretical Oxygen Demand (ThOD): 686 mg/g.

12.3 Bio accumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB)

12.6 Other hazards effect

None

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Dispose of product in accordance with all local, state/provincial and federal regulations

SECTION 14. TRANSPORT INFORMATION

	ADG	IMGD	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental	No.	No.	No.
Additional information	-	-	-

Special precautions for user: Not available

SECTION 15. REGULATORY INFORMATION

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

EU legislation:

- Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC;

- Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH);

- Commission Regulation (EC) No 552/2009 of 22 June 2009 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as regards Annex XVII;

- REGULATION (EC) No 1272/2008 2006 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;

- 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;

- Directive 2012/18/EU of the European Parliament and of the Council of 4 July 2012 on the control of majoraccident hazards involving dangerous substances, amending and subsequently repealing Council Directive 96/82/EC;

- Regulation (EU) No 98/2013 of the European Parliament and of the Council of 15 January 2013 on the marketing and use of explosives precursors;

- European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR);

- The International Rule for Transport of Dangerous Substances by Railway (RID);

- The International Maritime Dangerous Goods (IMDG); - International Convention for the Prevention of Pollution from Ships (MARPOL 73/78);

- The International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk (International Bulk Chemical Code) (the IBC Code).

National legislation (Lithuania):

- Applicable Law on Waste Disposal of the Republic of Lithuania;

- Applicable Law on Package and Package Waste Handling of the Republic of Lithuania;

- HN23 Maximum Allowable Concentrations of Hazardous Chemical Substances and Preparations in Working Environment. General Requirements; - HN36 Banned and Restricted Substances;

- Applicable Regulations for Workers ”Protection against the Impact of Chemical Factors” and Regulations for Workers “Protection against Carcinogenous and Mutagenous Impacts”;

- Applicable Procedure of Safety Data Sheet Requirements and Supply thereof to Professional Users;

- Applicable Rules on Labeling of Items (Products) to be Sold in Lithuania and Referring Price thereof;

- Applicable Rules on Waste Disposal;

17 of August 2004 Governments of the LR resolution No. 966 „On Prevention, Response and Investigation of dangerous objects and substances, mixtures or preparations classified as hazardous materials, and a list of criteria for designation of the Approval, as subsequently amended and supplemented. (Official Gazette, 2004, No. 130-4649; 2005 No. 131- 4731, 2008, No. 109-4159; 2009 No. 90-3855; 2010, No. 59-2894; 2012 No. 61-3078), as amended and supplemented.

Additional information about the relevant Community provisions on safety, health and the environment for the product.

The product is not subject to requirements according to the Government Resolution No. 966 of the Government of the Republic of Lithuania of 2004.08.07 „On Approval of the Description of the List and Attribution Criteria for List of Materials, Mixtures or Preparations of Hazardous Substances in the Hazardous Objects“ (Official Gazette, 2004, No. 130-4649) with all subsequent amendments and supplements).

Restrictions on the product according to Regulation (EU) No. 98/2013: not applicable.

15.2 Chemical safety assessment

As in accordance with Regulation No. 1272/2008 [CLP] aqueous urea solution is not classified as hazardous consequently in accordance with REACH Article 14 no Chemical Safety Assessment has been carried out for this mixture.

SECTION 16. OTHER INFORMATION

Revision date: 2025.01.20

Revision No. 02

(i) A clear evidence of added, deleted or modified information:

The safety data sheet, as compared to its previous version, has been modified in accordance with Commission Regulation (EU) No. 2015/830 requirements**.**

(ii) List of abbreviations and acronyms used throughout the Safety Data Sheet:

ATE – acute toxicity estimate;

ADR – European Agreement on Dangerous Goods by Road;

CLP – Classification, Labeling and Packaging Regulation; Regulation (EC) No 1272/2008;

CAS – Chemical Abstracts Service;

DNEL – Derived No-Effect value;

EU – European Union;

ECHA – European Chemicals Agency;

EC No. – EINECS ir ELINCS numbers;

EINECS – European List of Existing Commercial Chemical Substances;

ELINCS – European Register of Substances;

Eye Irrit. 2 – eye irritating 2 category; HS – Hygiene Standard;

IBC Code – International Code for the Construction and Equipment of Ships Carrying Bulk Hazardous Substances;

IMDG – International Maritime Organisation;

ĮST – Company Standard; IMSBC – International Bulk Cargo Code;

IUCLID – International Database of General Information on Chemicals;

RID – Regulations Concerning the International Carriage of Dangerous Goods by Rail;

IUPAC – International Union of Pure and Applied Chemistry;

UN – United Nations;

Kow – octanol-water partition coefficient;

LC50 – Lethal concentration of 50% of tested population;

LD50 – Lethal dose for 50% of tested population;

MARPOL 73/78 – International Convention for the Prevention of Pollution from Ships;

OJ – Official Journal;

Oxid. Solid 3 – oxidizing solids, 3 category;

PBT – Persistent, Bioaccumulative, Toxic;

PNEC(s) – Forecast(-s) no effect(-s) concentration(-s);

SDS – Safety Data Sheet;

vPvB – very Persistent, very Bio accumulative.

Explanation of the utilization sector (SU): SU23 – Electricity, current, gas, water supply and sewage treatment.

(iii) Bibliography:

1) Registration of urea according to the REACH dossier is published on the website of the European Chemicals Agency. 2) Company Standard No. 156667399-76 „Aqueous urea solution“; (v) Relevant precautionary and hazard statements: P102 – Keep out of reach of children;

3) DIN EN 149 „Respiratory protective devices. Filtering half masks to protect against particles. Requirements, testing, marking“;

4) DIN EN 166: Standard specifies functional requirements for various types of personal eye-protectors;

5) CSN EN 374: Protective gloves against dangerous chemicals and micro-organisms;

6) DIN EN 388 Protective gloves against mechanical risks;

7) CSN EN 402: Standa for respiratory protective devices. Lung governed demand self-contained opencircuit compressed air breathing apparatus with full face mask or mouthpiece assembly for escape;

8) DIN EN 403: Respiratory protective devices for self-rescue – Filtering devices with hood for escape from fire – Requirements, testing, marking;

9) CSN EN 407: Protective gloves against thermal risks (heat and/or fire);

10)DIN EN 14605: Protective clothing against liquid chemicals - Performance requirements for clothing with liquid-tight (Type 3) or spray-tight (Type 4) connections, including items providing protection to parts of the body only (Types PB [3] and PB [4]).

(iv) Applicable classification and procedures used to determine the classification of mixtures in accordance with Regulation (EC) No. 1272/2008 [CLP Regulation]: The product is a single substance. It is classified based on the classification of urea in the urea registration according to the REACH dossier.

(v) Relevant precautionary and hazard statements: P102 – Keep out of reach of children;

Madin Digital Signature