

**NOxAMID 45®**Date/revised: 24.11.2020

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**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY****1.1 Product identifiers**

Product name: **NOxAMID® 45**  
Substance name: **Urea solution 45%** (Aqueous solution)  
Product type: **Liquid**

**1.2 Use of the substance / mixture**

Reducing nitrogen oxides. Means for the wood processing- and paper industries. Sewage treatment means.

**1.3 Details of the supplier of the safety data sheet**

Mehldau & Steinfath Umwelttechnik GmbH  
Alfredstraße 279  
45133 Essen, Germany

Phone: +49 201 43 783 -0  
Fax: +49 201 43 783 -33  
Email: zentrale@ms-umwelt.de

**1.4 Emergency telephone number:**

Poison emergency call: 24-h-emergency call of GGIZ: +49 228/19240 or +49 30/19240

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**2. HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture**

**Product definition:**  
Mixture

**Classification according to regulation (EG) Nr. 1272/2008 (substances):**  
Not classified

The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

**Classification according to regulation EU-guidelines 67/548/EWG or 1999/45/EG:**  
Not classified

**2.2 Label elements**

**Labeling according to regulation (EG) Nr. 1272/2008 (substances)**  
Unnecessary

**Labeling (67/548/EWG or 1999/45/EG):**  
Unnecessary

**2.3 Other hazards**

The substance does not meet the criteria for PBT or vPvB according to the regulation (EC) Nr. 1907/2006, appendix XIII.

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**3. COMPOSITION / INFORMATION ON INGREDIENTS****3.1 Substances**

Not specified, s. mixture

**3.2 Chemical characterisation**Chemical characterisation:  
Urea in aqueous solution

Composition based of:

Urea, weight (W/W):	45 %
<b>CAS-Nr.:</b>	57-13-6
<b>EG-Nr.:</b>	200-315-5
<b>REACH-Nr.:</b>	01-2119463277-33-XXXX

Water; weight (W/W):	55 %
<b>CAS-Nr.:</b>	7732-18-5
<b>EG-Nr.:</b>	231-791-2

**4. FIRST AID MEASURES****4.1 Description of first aid measures**

<b>General Information:</b>	If symptoms persist, call a doctor. Show the doctor this Safety Data Sheet.
<b>After inhalation:</b>	Provide fresh air.
<b>After skin contact:</b>	Wash thoroughly with copious water.
<b>After eye contact:</b>	After contact with eyes, rinse immediately with copious water. Consult a doctor in case of complaints.
<b>After swallow:</b>	Flush mouth, drink copious water. Medical advice.

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

No further relevant information available.

**4.3 Indication of any immediate medical attention or special treatment needed**

No further relevant information available.

**5. FIRE-FIGHTING MEASURES****5.1 Extinguishing media**

**Suitable extinguishing agents:** The product is not flammable.  
Use fire extinguishing methods suitable to surrounding conditions.

**5.2 Special hazards arising from the substance or mixture**

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No further relevant information available.

**5.3 Advice for firefighters**

Ambient air independent breathing apparatus (EN 133)

**Additional information:**The product is not flammable. Use fire extinguishing methods suitable to surrounding conditions. In case of fire the following can be released: NH<sub>3</sub>

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**6. ACCIDENTAL RELEASE MEASURES****6.1 Personal precautions, protective equipment and emergency procedures**

Particular danger of slipping on leaked product.

**6.2 Environment precautions**

Not into the drains / surface water / should not release into groundwater.

**6.3 Methods and materials for containment and cleaning up**

Soak up with absorbent material (for example sand, diatomaceous earth, universal binder). Send in suitable containers for recovery or disposal. Flush away residues with water.

**6.4 Reference to other sections**No

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**7. HANDLING AND STORAGE****7.1 Precautions for safe handling****Fire precautions:** This product is not flammable. No special measures required.**Explosion protection:** No special measures required.**7.2 Conditions for safe storage, including any incompatibilities**

Information on storage conditions: Avoid seepage into the ground.

**Needs container:** Suitable materials for containers: Polyethylen of high density (HDPE), Polyethylen of low density (LDPE), high-grade steel 1.4301 (V2), high-grade steel 1.4401 (V4), glass.

Unsuitable materials for containers: Paper, iron, tin (tinplate).

Storage class according to VCI: 13 – non-combustible materials.

**7.3 Specific end applications**No

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**8. EXPOSURE CONTROLS / PERSONAL PROTECTION****8.1 Control Parameters**

Occupational exposure limit: no

Organic occupational exposure limit: no

**8.2 Exposure controls and personal protective equipment****Personal protective equipment:****Eye protection:**

Tightly sealed safety glasses according to EN 166

**Breathing protection:**Breathing protection by inadequate ventilation.  
Gas filter for non-organic gas/fumes (EN 14387 type B).**Hand protection:**Chemical resistant protective gloves (EN 374)  
Natural rubber / natural latex (NR) – 0.5 mm coating thickness  
Chloroprene rubber (CR) – 0.5 mm coating thickness  
Nitrile rubber (NBR) – 0.4 mm coating thickness  
Butyle rubber (Butyl) – 0.7 mm coating thickness  
Fluorrelastomer (FKM) – 0.7 mm coating thickness  
Polyvinyl chloride (PVC) – 0.7 mm coating thickness**General protective and hygienic measures:**No special protective equipment required. Avoid contact with the eyes and skin.  
Please follow the usual instructions when handling with chemicals.  
Wash hands before breaks and at the end of work.**9. PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on basic physical and chemical properties**

Appearance	
Aggregate state:	liquid
Colour:	colourless
Odour:	lightly ammonia
pH-value (20 °C):	ca. 9 – 10 (DIN/ISO 976)
Solidification temperature:	ca. 9 °C
Boiling point:	ca. 103 °C
Flashpoint:	no data available
Flammability:	non flammable
Ignition temperature:	inapplicable
Oxidizing properties:	not oxidizing
Thickness (20 °C):	ca. 1.126 g/ml (ISO 2811-3)

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Solubility in water:	good soluble
Viskosität, dynamisch:	ca. 1,8 mPa.s (DIN/EN/ISO 3219, Anhang A)

**10. STABILITY AND REACTIVITY****10.1 Reactivity**

Solid by normal ambient temperature and normal pressure.

**10.2 Chemical stability**

Solid by normal conditions. No decomposition if used according to specifications

**10.3 Possibility of hazardous reactions**

Strongly with nitrides. With strong oxidants.

**10.4 Conditions to avoid**

Container and product must be protected from direct sunlight.

**10.5 Incompatible materials**

Copper, copper alloys, galvanized steel

**10.6 Hazardous decomposition products**

Hazardous decomposition products: ammonia.

**11. TOXICOLOGICAL INFORMATION****11.1 Information on toxicological effects**

<b>Acute orally toxicity:</b>	Dosis LD50:	14,300 mg/kg
	Species:	Rat
	Based on urea.	
<b>Irritant effect on the skin:</b>	Test substance:	Urea
	Result:	non irritating
<b>Irritant effect on the eye:</b>	Test substance:	Urea
	Result:	non irritating
<b>Sensitisation:</b>	Test substance:	Urea
	Result:	non sensitizing
<b>Mutagenicity:</b>	Test substance:	Urea
	Result:	not mutagenic
<b>Toxicity by repeated dose:</b>	Application:	Orally
	Test substance:	Urea
	NOAEL:	2,250 mg/kg
	Species:	Rat

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**Teratogenicity:** Test substance: urea  
NOAEL: 500 mg/kg  
Species: rat

**Additional information:** There are no observations that indicate hazardous properties.

**12. ECOLOGICAL INFORMATION****12.1 Toxicity**

Aquatic toxicity: Test substance: urea  
Dosis LC50: > 6,810 mg/l  
Spezies: Leuciscus idus (Goldorfe)  
Exposure time: 96 h

Daphnientoxizität: Test substance: urea  
Dosis EC50: 10,000 mg/l  
Spezies: Daphnia magna (Großer Wasserfloh)  
Exposure time: 24 h

**12.2 Persistence and degradability**

Biodegradation: Test substance: urea  
Readily biodegradable.

**12.3 Bioaccumulative potential**

Bioaccumulation: Test substance: urea  
No bioaccumulation.

**12.4 Mobility in soil**

Mobility in soil: No further relevant information available

**12.5 Results of PBT- and vPvB-assessment**

This mixture contains no ingredients, which are persistent, bioaccumulative or toxic.

**12.6 Other adverse effects**

Additional ecological information: Slightly water hazardous.

**13. DISPOSAL CONSIDERATIONS****13.1 Waste treatment methods****Disposal of product residuals:**

Must be supplied to a proper disposal, in compliance with the regulations for waste recycling and -disposal.

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Classification of waste has to take place, ancestry oriented, to the regulation of the European Waste Catalogue (AVV).

**Uncleaned packaging:**

Disposal must be made according to official regulations; contaminated packages have to be treated like substance. Packaging has to be emptied. Then they can be supplied after being thoroughly cleaned for reuse.

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**14. TRANSPORT INFORMATION**

Not a hazardous material according to transport regulations. (ADR RID ADNR IMDG/GGVSEE ICAO/IATA)

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**15. REGULATORY INFORMATION****15.1 Safety, health and environmental regulation / legislation specific for the substance or mixture**

EINECS-nr.: 200-315-5  
Does not require labeling  
All ingredients of our products have been pre-registered according to EU-Regulation nr. 1907/2006 (REACH).  
Does not require labeling  
European Union regulation: 1907/2006 (EG)  
Regulation (EG) Nr. 1272/2008  
  
Regulation: 67/548/EWG  
1999/45/EG  
  
National Regulation (Germany):  
Statutory order on hazardous incidents: not regulated  
Water hazard class: WGK 1, slightly hazardous to water according to VwVwS attached 2.  
Technical instructions on air quality (TA Luft): TA-Luft Nr. 5.2.1 total dust incl. fine dust  
  
Other regulations: no employment restriction

**15.2 Chemical safety assessment:**

A chemical safety assessment has been carried out.

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**16. OTHER INFORMATION****More Information:**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific features and shall not establish a legally valid contractual relationship.

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