SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Ad Blue
Article number: 46329, 171331, 171335, 171336, 171337, 171338

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

1.2.1 Relevant uses

after-treatment of exhaust gases for diesel automotive

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

Company

Ferdinand Bilstein GmbH + Co. KG
Wilhelmstr. 47
58256 Ennepetal / GERMANY
Phone +49 2333 911-0
Fax +49 2333 911-444
Homepage www.febi.com
E-mail info@febi.com

Address enquiries to

Technical information info@febi.com

Safety Data Sheet info@febi.com

1.4 Emergency telephone number

Advisory body +49 (0)89-19240 (24h) (English)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture [REGULATION (GB) CLP]

No classification.

2.2 Label elements

The product does not require a hazard warning label in accordance with regulation CLP.

Hazard pictograms none

Hazard statements none

Precautionary statements none

2.3 Other hazards

Environmental hazards Does not contain any PBT or vPvB substances.
Contains no ingredients with endocrine-disrupting properties.

Other hazards none

SECTION 3: Composition / Information on ingredients

3.1 Substances

not applicable

3.2 Mixtures

The product is a mixture.

Range [%]	Substance
60 - < 75	Water
	CAS: 7732-18-5, EINECS/ELINCS: 231-791-2
25 - < 40	Urea
	CAS: 57-13-6, EINECS/ELINCS: 200-315-5

Comment on component parts

No dangerous components.
All chemical substances in this material are included on or exempted from listing on the IECSC Inventory.
Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Take off contaminated clothing and wash before reuse.

Inhalation

Ensure supply of fresh air.
In the event of symptoms seek medical treatment.

Skin contact

When in contact with the skin, clean with soap and water.
Consult a doctor if skin irritation persists.

Eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

Ingestion

Rinse out mouth and give plenty of water to drink.
In the event of symptoms seek medical treatment.

4.2 Most important symptoms and effects, both acute and delayed

None known.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.
Forward this sheet to your doctor.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Product itself is non-combustible. Fire extinguishing method of surrounding areas must be considered.

Extinguishing media that must not be used

Full water jet.

5.2 Special hazards arising from the substance or mixture

In the event of fire the following can be released:
Carbon monoxide (CO)
Nitrogen oxides (NOx).
Hydrogen cyanide (HCN).
Ammonia (NH3).

5.3 Advice for firefighters

Use self-contained breathing apparatus.

Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment.

6.2 Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers).
Do not discharge into the drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up

Pick up with absorbent material (e.g. sand, sawdust, universal absorbent, diatomaceous earth).
Dispose of absorbed material in accordance within the regulations.

6.4 Reference to other sections

See SECTION 8+13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

The normal safety precautions for handling chemicals must be observed.

Wash hands before breaks and after work.
Do not eat, drink or smoke when using this product.
Keep away from food and drink.
Take off contaminated clothing and wash before reuse.

7.2 Conditions for safe storage, including any incompatibilities

Do not store together with oxidizing agents.

Keep container tightly closed and store it at a well-ventilated place.
Recommended storage temperature: -10 - 25 °C
Keep in a cool place. Store in a dry place.
Do not keep at temperatures above 35 °C.
Do not keep at temperatures below - 11 °C.

7.3 Specific end use(s)

See product use, SECTION 1.2

SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Ingredients with occupational exposure limits to be monitored (GB)

not relevant

DNEL

Substance
Urea, CAS: 57-13-6
worker, inhalative, Long-term - systemic effects, 292 mg/m³ (AF=12)
worker, dermal, Long-term - systemic effects, 580 mg/kg bw/d (AF=12)
general population, oral, Long-term - systemic effects, 42 mg/kg bw/d (AF=12)
general population, dermal, Long-term - systemic effects, 580 mg/kg bw/d (AF=12)
general population, inhalative, Long-term - systemic effects, 125 mg/m³ (AF=12)

PNEC

Substance
Urea, CAS: 57-13-6
seawater, 0.047 mg/L (AF=1000)
freshwater, 0.47 mg/L (AF=100)

8.2 Exposure controls

Additional advice on system design
Ensure adequate ventilation on workstation.

Eye protection
Safety glasses. (EN 166:2001)

Hand protection
The details concerned are recommendations. Please contact the glove supplier for further information.
0.4 mm: Nitrile rubber, >120 min (EN 374-1/-2/-3).
0.7 mm: butyl rubber, > 120 min (EN 374)

Skin protection
Not required under normal conditions.

Other
Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier.
Avoid prolonged and/or repeated contact with skin.

Respiratory protection
Not required under normal conditions.

Thermal hazards
No information available.

Delimitation and monitoring of the environmental exposition
Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	liquid
Form	liquid
Color	colourless
Odor	like ammoniac
Odour threshold	No information available.
pH-value	9 -10
pH-value [1%]	No information available.
Boiling point [°C]	ca. 100
Flash point [°C]	not applicable
Flammability (solid, gas) [°C]	not applicable
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	2.3 (20 °C)
Density [g/cm³]	1.087 - 1.093 (20 °C / 68,0 °F)
Relative density	not determined
Bulk density [kg/m³]	not applicable
Solubility in water	completely miscible
Solubility other solvents	No information available.
Partition coefficient [n-octanol/water]	-1.73
Kinematic viscosity	2.5 mPa.s (20 °C)
Relative vapour density	No information available.
Evaporation speed	No information available.
Melting point [°C]	ca. -11
Auto-ignition temperature [°C]	not applicable
Decomposition temperature [°C]	No information available.
Particle characteristics	No information available.

9.2 Other information

none

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reactions known if used as directed.

10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

Reactions with strong alkalies and oxidizing agents.

10.4 Conditions to avoid

See SECTION 7.2.
Strong heating.

10.5 Incompatible materials

Strong oxidizing agent.

10.6 Hazardous decomposition products

In the case of heating following (decomposition) products may occure:
Ammonia.
Nitrous oxides (NOx).

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute oral toxicity

Product
ATE-mix, oral, 14 300 mg/kg bw

Substance
Urea, CAS: 57-13-6
LD50, oral, Rat, 14300 mg/kg

Acute dermal toxicity

Substance
Urea, CAS: 57-13-6
LD50, dermal, Rat, 8200 mg/kg (IUCLID)

Acute inhalational toxicity	
Serious eye damage/irritation	Based on the available information, the classification criteria are not fulfilled.
Skin corrosion/irritation	Based on the available information, the classification criteria are not fulfilled.
Respiratory or skin sensitisation	Based on the available information, the classification criteria are not fulfilled.
Specific target organ toxicity — single exposure	Based on the available information, the classification criteria are not fulfilled.
Specific target organ toxicity — repeated exposure	Based on the available information, the classification criteria are not fulfilled.
Mutagenicity	Based on the available information, the classification criteria are not fulfilled.
Reproduction toxicity	Based on the available information, the classification criteria are not fulfilled.
Carcinogenicity	Based on the available information, the classification criteria are not fulfilled.
Aspiration hazard	Based on the available information, the classification criteria are not fulfilled.
General remarks	
	Toxicological data of complete product are not available. The toxicity data listed pertaining to the ingredients are intended for those working in the medicinal professions, experts for occupational health and safety and toxicologists.

11.2 Information on other hazards

Endocrine disrupting properties	Contains no ingredients with endocrine-disrupting properties.
Other information	none

SECTION 12: Ecological information

12.1 Toxicity

Product
Based on the available information, the classification criteria are not fulfilled.

Substance
Urea, CAS: 57-13-6
Pseudomonas putida, > 10000 mg/l /16h
Scenedesmus quadricauda (algea), > 10000 mg/l /8d
LC50, Leuciscus idus, > 6810 mg/l (DIN 38412)
LC50, (96h), fish, 12000 mg/l (IUCLID)
EC50, (48h), Daphnia magna, > 10000 mg/l (Lit.)

12.2 Persistence and degradability

Behaviour in environment compartments

Behaviour in sewage plant No information available.

Biological degradability Biodegradable.

12.3 Bioaccumulative potential

Accumulation in organisms is not expected.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

12.6 Endocrine disrupting properties

Contains no ingredients with endocrine-disrupting properties.

12.7 Other adverse effects

Ecological data of complete product are not available.
The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

Product

Coordinate disposal with the disposal contractor/authorities if necessary.

Waste no. (recommended) 070199

Contaminated packaging

Uncontaminated packaging may be taken for recycling.
Contaminated packing should be disposed of as product waste.

Waste no. (recommended) 150102

SECTION 14: Transport information

14.1 UN number or ID number

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

14.2 UN proper shipping name

Transport by land according to ADR/RID NO DANGEROUS GOODS

Inland navigation (ADN) NO DANGEROUS GOODS

Marine transport in accordance with IMDG NOT CLASSIFIED AS "DANGEROUS GOODS"

Air transport in accordance with IATA NOT CLASSIFIED AS "DANGEROUS GOODS"

14.3 Transport hazard class(es)

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

14.4 Packing group

Transport by land according to ADR/RID	not applicable
Inland navigation (ADN)	not applicable
Marine transport in accordance with IMDG	not applicable
Air transport in accordance with IATA	not applicable

14.5 Environmental hazards

Transport by land according to ADR/RID	no
Inland navigation (ADN)	no
Marine transport in accordance with IMDG	no
Air transport in accordance with IATA	no

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

14.7 Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information

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

EEC-REGULATIONS	2008/98/EC 2000/532/EC); 2010/75/EU; 2004/42/EC; (EC) 648/2004; (EC) 1907/2006 (REACH); (EU) 1272/2008; 75/324/EEC ((EC) 2016/2037); (EU) 2020/878; (EU) 2016/131; (EU) 517/2014
TRANSPORT-REGULATIONS	ADR (2023); IMDG-Code (2023, 41. Amdt.); IATA-DGR (2023)
NATIONAL REGULATIONS (GB):	EH40/2005 Workplace exposure limits (Second edition, published December 2011); UK REACH; GB CLP.
- Observe employment restrictions for people	no
- VOC (2010/75/CE)	0 %

15.2 Chemical safety assessment

For this product a chemical safety assessment has not been carried out.

SECTION 16: Other information

16.1 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
ATE = acute toxicity estimate
CAS = Chemical Abstracts Service
CLP = Classification, Labelling and Packaging
DMEL = Derived Minimum Effect Level
DNEL = Derived No Effect Level
EC50 = Median effective concentration
ECB = European Chemicals Bureau
EEC = European Economic Community
EINECS = European Inventory of Existing Commercial Chemical Substances
EL50 = Median effective loading
ELINCS = European List of Notified Chemical Substances
EmS = Emergency Schedules
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IC50 = Inhibition concentration, 50%
IMDG = International Maritime Code for Dangerous Goods
IUCLID = International Uniform ChemicaL Information Database
IVIS = In vitro irritation score
LC50 = Lethal concentration, 50%
LD50 = Median lethal dose
LC0 = lethal concentration, 0%
LOAEL = lowest-observed-adverse-effect level
LL50 = Median lethal loading
LQ = Limited Quantities
MARPOL = International Convention for the Prevention of Marine Pollution from Ships
NOAEL = No Observed Adverse Effect Level
NOEC = No Observed Effect Concentration
PBT = Persistent, Bioaccumulative and Toxic substance
PNEC = Predicted No-Effect Concentration
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
STP = Sewage Treatment Plant
TLV®/TWA = Threshold limit value – time-weighted average
TLV®STEL = Threshold limit value – short-time exposure limit
VOC = Volatile Organic Compounds
vPvB = very Persistent and very Bioaccumulative

16.2 Other information

Classification procedure

Modified position

SECTION 11 been added: Contains no ingredients with endocrine-disrupting properties.

SECTION 12 been added: Contains no ingredients with endocrine-disrupting properties.