

1 Identification of substance:

- **Product details:**
- **Trade name:** *BlueSky®*
- **Application of the substance / the preparation:**
Cleaning of waste gases
Reduction of NOx
- **Manufacturer / Supplier:**
Brenner Oil
*for Kruse NA**Tel.: 616-399-0919*
Fax: 616-399-9154
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- **Manufacturer:**

BlueSky LLC
Holland, MI 49424
- **E-mail address of the competent person responsible for the Safety Data Sheet<**
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- **Informing department:** *Blue Sky LLC: 616-399-0919*
- **Emergency information:**
616-218-5049

2 Hazards identification

- **Hazard designation:** *void*
- **Information pertaining to particular dangers for man and environment** *void*
- **Classification system**
The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

3 Composition/information on ingredients

- **Chemical characterization**
- **Description:** *Aqueous solution*

· Dangerous components:		
CAS: 57-13-6	Urea	32.5%
EINECS: 200-315-5		

4 First aid measures

- **General information:** *Remove contaminated clothing.*
- **After inhalation:** *Supply fresh air; consult doctor in case of symptoms.*
- **After skin contact:**
Rinse with plenty of water.
If skin irritation continues, consult a doctor.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.
- **After swallowing:**
Rinse out mouth and then drink plenty of water.
Get medical advice for safety reasons.

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5 Fire fighting measures

- **Suitable extinguishing agents** Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents** none
- **Special hazards caused by the material, its products of combustion or flue gases:**
Can be released in case of fire:
Ammonia (NH₃)
Nitrogen oxides (NO_x)
Carbon monoxide (CO) and Carbon dioxide (CO₂)
- **Protective equipment:** Put on breathing apparatus.
- **Additional information**
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

- **Person-related safety precautions:**
Ensure adequate ventilation.
Particular danger of slipping on leaked/spilled product.
Avoid contact with eyes.
- **Measures for environmental protection:** Do not allow to enter drainage system, surface or ground water.
- **Measures for cleaning/collecting:**
Ensure adequate ventilation.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of the material collected according to regulations.
Wash area with plenty of water.

7 Handling and storage

- **Handling**
- **Information for safe handling:**
Ensure good ventilation/exhaustion at the workplace.
Avoid prolonged or repeated skin contact.
Avoid contact with eyes.
- **Information about protection against explosions and fires:** The product is not flammable.
- **Storage**
- **Requirements to be met by storerooms and containers:**
Observe all local and national regulations for storage of water polluting products.
Use only containers specifically permitted for this substance/product.
- **Information about storage in one common storage facility:** Not required
- **Further information about storage conditions:**
Keep container tightly sealed.
Storage temperature -5 - 30 °C

8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Components with critical values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the compilation were used as basis.
- **Personal protective equipment**
- **General protective and hygienic measures**
Keep away from foodstuffs, beverages and food.

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Instantly remove any contaminated garments.

Avoid contact with the eyes.

Avoid close or long term contact with the skin.

Wash hands during breaks and at the end of the work.

· **Breathing equipment:** Not necessary if room is well-ventilated.

· **Protection of hands:**

Protective gloves

To avoid skin problems reduce the wearing of gloves to the required minimum.

Check the permeability prior to each renewed use of the glove.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Sensibilization by the components in the glove materials is possible.

· **Material of gloves**

Natural rubber - NR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:** Safety glasses recommended during refilling.

· **Body protection:**

Protective work clothing

Protective clothing should be selected specifically for the working place.

9 Physical and chemical properties:

· General Information

Form:	liquid
Colour:	clear
Smell:	colourless to yellowish characteristic

· Change in condition

Melting point/Melting range:	-11°C
Boiling point/Boiling range:	103°C

· **Flash point:** not applicable

· **Self-inflammability:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive.

· **Density at 20°C** 1.087-1.093 g/cm³

· **Solubility in / Miscibility with Water:** fully miscible

· **pH-value (100 g/l) at 20°C:** 10

· **Viscosity:**
dynamic at 25°C: ~ 1.4 mPas

10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

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- **Materials to be avoided:**
Strong oxidizing agents
Nitrites
- **Dangerous reactions**
Reacts with strong oxidizing agents
Violent reaction with nitrites
- **Dangerous products of decomposition:**
Nitrogen oxides (NO_x)
Ammonia (NH₃)
Carbon monoxide (CO) and Carbon dioxide (CO₂)

11 Toxicological information

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

57-13-6 Urea

Oral	LD50	14500 mg/kg (rat)
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- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritant effect.
- **Sensitization:** No sensitizing effect known.
- **Additional toxicological information:**

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

12 Ecological information:

- **Information about elimination (persistence and degradability):**
- **Other information:** The product is biodegradable.
- **Ecotoxicological effects:**

- **Aquatic toxicity:**

57-13-6 Urea

EC50/24 h	> 10000 mg/l (water flea (daphnia magna))
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LC50/96 h	> 6810 mg/l (leuciscus idus)
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- **General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water
The product may not be released into the environment without control.

13 Disposal considerations

- **Product:**
- **Recommendation** Disposal must be made according to official regulations.
- **European waste catalogue:**
Waste disposal key numbers from EWC have to be assigned depending on origin and processing.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleaning agent:** Water, if necessary with cleaning agent.

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14 Transport information

· **Land transport ADR/RID (cross-border):**

· **ADR/RID Class:** -

· **Maritime transport IMDG/GGVSea:**

· **IMDG/GGVSea Class:** -

· **Air transport ICAO-TI and IATA-DGR:**

· **ICAO/IATA Class:** -

· **Transport/Additional information:**

Not dangerous according to the above specifications.

Maximum transport temperature: 30 °C

15 Regulatory information

· **Designation according to EC guidelines:**

The product is not subject to classification according to the calculation methods of the "General Classification Guideline for Preparations of the EC" as issued in the last version.

Observe all safety regulations when handling chemicals.

· **Canadian regulations: WHMIS Information: This product is not a WHMIS controlled product in Canada.**

· **Decree to be applied in case of technical fault:** -

· **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water

· **Other regulations, limitations and prohibitive regulations**

ISO 22241: Diesel engines - NOx reduction agent AUS 32 - Quality requirements and test methods

16 Other information:

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

BlueSky LLC

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Holland, MI 49424

· **Sources:** These data are based on information submitted by pre-suppliers.