

# SAFETY DATA SHEET

## DIESEL EXHAUST FLUID (DEF)

SDS #4004

**Airgas**  
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### Section 1 – Product and Company Identification

**GHS product identifier:** AiRx™ Diesel Exhaust Fluid

**Other means of identification:** Automotive grade urea solution, AUS 32, AdBlue; CAS #: 57-13-6

**Recommended use of the chemical:** Agricultural, Industrial **Restrictions:** none known

**Supplier Details:** Airgas Specialty Products, Inc.; 2530 Sever Rd.; Ste 300; Lawrenceville, GA 30043

Phone: 770-717-2210

**Emergency phone number(s):** 800-528-4963 (hrs: 7/24) **Chemtrec:** 800-424-9300 (hrs: 7/24)

Transportation, Canada (CANUTEC): 1-613-996-6666

### Section 2. Hazard(s) identification

**Classification:** Not hazardous as per 29CFR1910.1200

**Signal word:** Warning

**Hazard statement(s)/Classification:** Eyes should be protected from splashes.

### Section 3. Composition/ information on ingredients

**Chemical name:** Urea Solution

**CAS #:** 57-13-6

**Common name & synonyms:** Aqueous Urea Solution 32.5%, Diesel Exhaust Fluid, DEF, AUS 32, AdBlue

**Urea** 31.8-33.2% **CAS #:** 57-13-6

**Water** 68.2-66.8% **CAS #:** 7732-18-5

### Section 4. First-aid measures

**Eye contact:** Immediately flush eyes with excess, low-pressure potable water for at least 15 minutes; lift eyelids in process. Remove contacts ASAP. Seek immediate medical aid if irritation occurs. **Symptoms:** Redness, burning & watering of the eyes. **Effects:** Possible damage.

**Inhalation:** Not likely, since fumes from product should not occur. Remove from exposure. Seek immediate medical aid.

**Symptoms:** Irritated nose & respiratory system. **Effects:** No data.

**Skin contact:** Immediately flush body with excess, low-pressure water for at least 15 minutes while removing all contaminated clothing. Seek medical aid if symptoms occur. **Symptoms:** Burning sensation. **Effects:** No data.

**Ingestion:** Wash out mouth with water. Seek immediate medical aid if material has been swallowed. Do not induce vomiting unless directed to do so by medical personnel. **Symptoms/Effects:** No data.

**Summary:** Potable water is preferred in all cases; but, any water is likely to be better than no water.

### Section 5. Fire-fighting measures

**Hazard:** Solution is not flammable. Decomposition products may include carbon dioxide, carbon monoxide, nitrogen oxides. **Extinguishing media:** Use an extinguishing agent suitable for the surrounding fire.

**Protective equipment:** Isolate the fire area. Fire fighters should wear protective gear appropriate for the fire situation.

### Section 6. Accidental release measures

**SUGGESTED LOCAL ACTION:** Stop leak if feasible. Contain material and prevent material from entering waterways. Inform the relevant authorities if the product has or will cause pollution to sewers, waterways, soil or air.

### Section 7. Handling and storage

Protect containers & labels from damage. Wear appropriate protective gear.

### Section 8. Exposure controls / personal protection

**Engineering controls:** Provide ventilation adequate for the situation.

**Personal Protective Measures:** **Eyes:** Appropriate eye protection should be worn to prevent splashes from entering eyes. **Respiratory:** Use respiratory protection as needed. **Skin:** Wear rubber gloves and other skin protection as needed. **Other:** Eye wash and safety showers should be immediately available.

**Section 9. Physical and chemical properties**

**Physical state:** Liquid **Color:** Clear  
**Molecular formula/weight:** N<sub>2</sub>H<sub>4</sub>CO/60.06 **pH:** 7.2  
**Odor:** nil **Critical Temperature:** N/A  
**Boil/condense point:** 212 dF (water) **Melt/freeze point:** 12 dF  
**Flammability:** Urea solution is not flammable.  
**Vapor pressure:** NA **Vapor density:** NA  
**Flash point, Burn time, Burn rate, Evaporation rate:** all not available

**Section 10. Stability and reactivity**

**Reactivity:** Specific test data not available.  
**Chemical stability:** Stable under normal conditions of use and storage.  
**Possible hazardous reactions:** Generally none under normal use conditions.  
**Conditions to avoid:** Excess heat  
**Hazardous decomposition products:** Should not occur under normal use and storage conditions. . Dry urea may decompose upon heating into ammonia, nitrogen oxides, carbon dioxide, cyanuric acid, cyanic acid or biuret.

**Section 11. Toxicological information**

**Toxicity:** Rat: LD<sub>50</sub> Oral 8,471 mg/Kg  
**Corrosive:** Moderate irritant with prolonged exposure.  
**Chronic effects:** None known. Not a known sensitizer, mutagen, carcinogen, teratogen, or reproductive toxin.

**Section 12. Ecological information**

Urea (100%)	Acute LC <sub>50</sub> 22.5 ppt fresh water;	Fish-Oreochromis mossambicus – young;	96 hrs
	Acute EC <sub>50</sub> 6573.1 mg/L fresh water	Crustaceans-Ceriodaphnia dubia-Neonate	48 hrs
	Acute EC <sub>50</sub> 3910 mg/L fresh water	Daphnia-Daphnia magna Neonate	48 hrs

**Section 13. Disposal considerations**

Recycle container and contents if possible. Otherwise, dispose of in accordance with federal, state and local regulations. Contact your Airgas Specialty Products sales specialist for assistance.

**Section 14. Transport information****(Ground Only)**

	<u>US DOT</u>	<u>Canada TDG</u>	<u>MEXICO</u>
UN Number	Not Regulated	Not Regulated	Not Regulated
Proper shipping name:	NA	NA	NA
Hazard class	NA	NA	NA
Placards	NA	NA	NA

Do not ship via air or water without consulting shipping/transportation specialist for applicable regulations.

**Section 15. Regulatory information**

Tier 2 reports are due by March 1, each year. Federal regulations can be found at: [www.ecfr.gov](http://www.ecfr.gov)  
 OSHA regulations are in 29CFR, EPA regulations are in 40CFR, and DOT regulations are in 49CFR.

**Section 16. Other information**

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