



MATERIAL SAFETY DATA SHEET

READ AND UNDERSTAND MATERIAL SAFETY DATA SHEET
BEFORE HANDLING OR DISPOSING OF PRODUCT

ACDelco ANTIFREEZE +B2

1. PRODUCT AND COMPANY NAME

PRODUCT CODE AND NAME

40105 ACDelco ANTIFREEZE +B2

DESCRIPTION

Antifreeze

COMPANY

GM Europe Holdings

50639

Zaragoza

Spain

Fax: 0034/91 456 9288

Emergency phone number : 0044/(0)18 65 407 333

Poison Control Center (Belgium only) : +32/(0)70 245 245

2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Name</u>	<u>% Wt</u>	<u>CAS No.</u>	<u>EC No.</u>
Ethylene glycol	80 - 94,99	107-21-1	203-473-3
Xn R 22	Harmful if swallowed.		

The product contains a bittering repellent agent.

3. HAZARDS IDENTIFICATION

Product classification

HARMFUL

Acute effects of exposure to man

Inhalation

Vapours or mist, in excess of permissible concentrations, or in unusually high concentrations generated from spraying, heating the material or from exposure in poorly ventilated areas or confined spaces, may cause irritation of the nose and throat, headache, nausea, and drowsiness.

Skin contact

Brief contact may cause slight irritation. Prolonged contact, as with clothing wetted with material, may cause more severe irritation and discomfort, seen as local redness and swelling.

Eye contact

May cause irritation, experienced as mild discomfort and seen as slight excess redness of the eye.

Ingestion

Ethylene glycol and diethylene glycol are toxic when swallowed. A lethal dose for an adult is 1-2 ml per kilogram, or about 100 ml. Symptoms include staggering, slurred speech, loss of coordination, confusion, faintness, nausea, vomiting, increased heart rate, difficulty breathing, difficulty seeing, convulsions, and collapse. Symptoms may be delayed. Decreased urine output, kidney failure, and nervous system damage may also occur.

Aspiration may occur during swallowing or vomiting, resulting in lung damage.

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Chronic effects of exposure to man

Repeated ingestion may cause kidney damage.

Medical conditions aggravated by exposure

Repeated overexposure may aggravate an existing kidney disease. Because of its irritating properties, repeated skin contact may aggravate an existing dermatitis (skin condition).

4. FIRST AID MEASURES

Route of exposure

Inhalation

If irritation, headache, nausea, or drowsiness occurs, remove to fresh air. Get medical attention if breathing becomes difficult or symptoms persist.

Skin contact

Wash skin with plenty of soap and water for several minutes. Get medical attention if skin irritation develops or persists.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Hold eyelids apart while flushing to rinse entire surface of eye and lids with water. Get medical attention.

Ingestion

Get immediate medical attention. If person is conscious and can swallow, immediately give two glasses of water (500 ml) but do not induce vomiting. If vomiting occurs, give fluids again. Have physician determine if condition of person will permit induction of vomiting or evacuation of stomach. Do not give anything by mouth to an unconscious or convulsing person.

Other recommendations

Ethylene glycol poisoning may initially produce behaviour changes, drowsiness, vomiting, diarrhoea, thirst and convulsions. Renal damage or failure with metabolic acidosis are late signs of poisoning. Immediate treatment may reduce toxic effects, supplemented, if necessary with haemodialysis. Intravenous ethanol in sodium bicarbonate solution is a recognized antidote. Contact a poison centre for further treatment information.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use water fog, dry powder, foam, or carbon dioxide. Water or foam may cause frothing. Use water to cool fire-exposed containers. If a leak or spill has not ignited, use water fog to disperse the vapours and to provide protection for persons attempting to stop the leak.

Extinguishing media which must not be used for safety reasons

Water jet

Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases

None

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Special protective equipment for firefighters

The nature of special protective equipment required will depend upon the size of the fire, the degree of confinement of the fire and the natural ventilation available. Fire-resistant clothing and self-contained breathing apparatus is recommended for fires in confined spaces and poorly-ventilated areas. Full fire-proof clothing is recommended for any large fires involving this product.

6. ACCIDENTAL RELEASE MEASURES

Procedures in case of accidental release or leakage

Ventilate area. Avoid breathing vapour. Use self-contained breathing apparatus or supplied air mask for large spills or confined areas. Contain spill if possible. Wipe up or absorb on suitable material and shovel up. Prevent entry into sewers and waterways. Avoid contact with skin, eyes or clothing.

7. HANDLING AND STORAGE

Handling

Periods of exposure to high temperatures should be minimized. Water contamination should be avoided.

Storage

Transport, handle and store in accordance with applicable local regulations and only in labelled containers designed for this product.

Specific use (s)

For intended product uses please refer to the Product Information Leaflet (PIL)

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection

Airborne concentrations should be kept to lowest levels possible. If vapour, mist or dust is generated, 3M mask type 7002 fitted with cartridges for organic vapours e.g. type 3M/6057. E.g. Dräger panorama Nova respirator mask + respirator type PA 94 should be used for cleaning large spills or upon entry into tanks, vessels, or other confined spaces. See below for applicable permissible concentrations.

Hand and skin protection

Avoid skin contact. Nitrile/neoprene gloves recommended. When contamination has occurred, wash exposed skin with soap and water.

Eye protection

Chemical type goggles or face shield recommended to prevent eye contact.

Exposure limit for the product

Ethylene glycol : TWA/OEL (8hr) : 52 mg/m³ ; STEL : 104 mg/m³ ; ACGIH : STEL = 100 mg/m³

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Blue-Green

Odour

Mild odour

Flash point (ASTM D93), °C

115 min.

Relative density

1.130 kg/l @ 20°C

Viscosity

20 mm²/s @ 20°C

pH

7.2

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Solubility in water 100 %

10. STABILITY AND REACTIVITY

Conditions to avoid Sources of ignition such as flames, sparks, hot surfaces.

Materials to avoid Avoid contact with strong oxidising agents.

Hazardous decomposition products Oxides of carbon, aldehydes and ketones.

11. TOXICOLOGICAL INFORMATION

Acute

Inhalation High concentrations of vapours or mist are likely to be irritating to the respiratory tract and may cause nausea, dizziness, headaches and drowsiness.

Skin contact Slightly irritating to the skin.

Eye contact Unlikely to cause more than transient stinging or redness if accidental eye contact occurs.

Ingestion Harmful. Causes headache, weakness, confusion, loss of coordination, dizziness, difficulty walking, nausea, vomiting, decreased blood pressure, increased heart rate, pulmonary oedema, kidney failure, unconsciousness, convulsions, and coma. Symptoms may be delayed. Severe poisoning may cause death.

Chronic Repeated ingestion may cause kidney damage.
Repeated overexposure may aggravate an existing kidney disease.

12. ECOLOGICAL INFORMATION

Mobility Not determined

Persistence and degradability According to EC criteria : Expected to be readily biodegradable

Potential to bioaccumulate This product is estimated to have a low potential to bioconcentrate.

Aquatic toxicity Believed not to be toxic to aquatic species.

Remarks Releases of small quantities are unlikely to affect adversely the functioning of water treatment plants.
WGK=1

13. DISPOSAL CONSIDERATIONS

Disposal Dispose in accordance with local laws and regulations governing disposal of chemicals.
EWC-Nr. : 16 01 14

14. TRANSPORT INFORMATION

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transport not regulated

Not regulated

15. REGULATORY INFORMATION

Classification/Labelling information

Under the criteria of Directive EEC/67/548 (dangerous substances) and EEC/1999/45 (dangerous preparations) :

Symbol (letter notation) + Indication of danger

Xn HARMFUL

Risk phrases

Xn R 22 Harmful if swallowed.

Safety phrases for public use

S 2 Keep out of the reach of children.
S 46 If swallowed, seek medical advice immediately and show this container or label.

Safety phrases for industrial use

S 36/37 Wear suitable protective clothing and gloves.

Hazardous ingredients

Ethylene glycol

Additional information

Refer to any national measures that may be relevant.

16. OTHER INFORMATION

other information

Acute or chronic oral consumption of products containing ethylene glycol can produce significant adverse health effects, including death, in humans and animals. Keep out of reach of children. Such products should not be used in potable (drinking)water systems or other systems where contamination of potable water supplies is possible (e.g., recreational vehicles, winterizing potable water systems).
Do not decant into unlabeled containers.

Full text of risk phrases

Xn R 22 Harmful if swallowed.

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Changes were made in sections : 3,7,8,16

All information contained in this Material Safety Data Sheet and, in particular, the health and safety and environmental information is accurate to the best of our knowledge and belief as at the date of issue specified. However, the Company makes no warranty or representation, express or implied, as to the accuracy or completeness of such information.

The provision of this Material Safety Data Sheet is not intended, of itself, to obviate the need for all users to satisfy themselves that the product described is suitable for their individual purposes and that the safety precautions and environmental advice are adequate for their individual purposes and situation. Further, it is the user's obligation to use this product safely and to comply with all applicable laws and regulations concerning the use of the product.

The company accepts no responsibility for any injury, loss or damage, consequent upon any failure to follow the safety and other recommendations contained in this Material Safety Data Sheet, nor from any hazards inherent in the nature of the material, nor from any abnormal use of the material.

Data sheet prepared by GM Europe Holdings SL

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