

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: **GEN3 6-4 Runway De-icer**

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

Use of the
Substance/Mixture: Ground Deicing Fluid (airside approved)

1.3. Details of the supplier of the safety data sheet

Company: **LNT Solutions Ltd**
Isabella Road, Garforth, Leeds, LS25 2DY, UK
Tel. +44 113 385 4187
info@LNTsolutions.com

1.4. Emergency tel nos.: +44 7525236825 or +44 7808187550

2. Hazards identification

2.1 Classification of the substance or mixture

Classification according to EU Directives 67/548/EEC or 1999/45/EC

This mixture is not classified as dangerous according to Directive 1999/45/EC.

Most important adverse effects

Human Health: See section 11 for toxicological information.
No further information available.

Physical and chemical
hazards: See section 9 for physicochemical information.
No further information available.

2.2. Label elements

Labelling according to EC Directives 67/548/EEC or 1999/45/EC

The product does not need to be labelled in accordance with EC directives or respective national laws.

2.3. Other hazards

No other information is available.

3. Composition/information on ingredients

3.2. Mixtures

Chemical nature : Aqueous preparation of non hazardous ingredients.

Further components

Proprietary polyols	20 – 50%
Organic salts	20 - 40%
Inhibitors	<1%

4. First aid measures

4.1 Description of first aid measures

General advice: Move out of dangerous area. Take off all contaminated clothing immediately.

If inhaled: Move to fresh air in case of accidental inhalation of vapours. If symptoms call a physician.

In case of skin contact: Wash off immediately with plenty of water for at least 15

minutes. If skin irritation persists, call a physician

In case of eye contact: Rinse immediately with plenty of water for at least 15 minutes. If eye irritation persists, consult a specialist.

If swallowed: Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Call a physician immediately. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : No further information available.

Effects : No further information available.

4.3 Indication of immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

5. Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media: Water spray
Carbon dioxide (CO₂)
Alcohol-resistant foam
Dry chemical

Unsuitable extinguishing media: No information available.

5.2. Special hazards arising from the substance or mixture

Specific hazards during fire fighting: Combustible liquid.
Fire may cause evolution of:
Carbon oxides.
Acrolein

5.3. Advice for firefighters

Special protective equipment for fire-fighters: In the event of fire, wear self-contained breathing apparatus
Wear appropriate body protection (full protective suit)

Further information: Cool closed containers exposed to fire with water spray.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment. Provide adequate ventilation. Keep away from heat and sources of ignition. Avoid contact with skin and eyes.

6.2 Environmental precautions

Environmental precautions: If the product contaminates rivers and lakes or drains inform respective authorities.
If material reaches soil inform authorities responsible for such cases.

6.3 Methods and materials for containment and cleaning up

Methods and materials for containment and cleaning up: Ensure adequate ventilation. Large spills should be collected mechanically (remove by pumping) for disposal. Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders). Treat recovered material as described in the section "Disposal considerations".

6.4 Reference to other sections

For personal protection see section 8.

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling: Keep container tightly closed. Provide sufficient air exchange and/or exhaust in work rooms. Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing.

Hygiene measures: Take off all contaminated clothing immediately. Do not breathe gas/fumes/vapour/spray. Avoid contact with the skin and the eyes. Keep away from food, drink and animal feedingstuffs. Smoking, eating and drinking should be prohibited in the application area. Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers: Keep in an area equipped with solvent resistant flooring. Keep in a well-ventilated place. Keep tightly closed in a dry and cool place. Keep away from heat and sources of ignition.

Advice on protection against fire and explosion: Combustible material. Keep away from open flames, hot surfaces and sources of ignition.

Advice on common storage: Incompatible with strong bases and oxidizing agents.

7.3 Specific end uses

Specific use(s): No information available.

8. Exposure controls/personal protection

8.1. Control parameters

Other OELs

(Additional) Information : Exempt

8.2. Exposure controls

Personal protective equipment

Respiratory protection: Use respirator with appropriate filter if vapours or aerosol are released.

Recommended Filter type:
Combination filter: A-P2.

Hand protection Wear suitable gloves.
As the product is a mixture of several substances, the durability of the glove materials cannot be calculated in advance and has to be tested before use.
Protective gloves should be replaced at first signs of wear.

Eye protection: Tightly fitting safety goggles

Skin and body protection: Protective work clothing

Environmental exposure controls

General advice: If the product contaminates rivers and lakes or drains inform respective authorities.
If material reaches soil inform authorities responsible for such cases.

9. Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Form: liquid
Colour: colourless
Odour: odourless
Odour Threshold : no data available
pH: 10 - 11
Freezing point: -48°C
Boiling point: >120°C
Flash point: >100°C
Evaporation rate : not applicable
Flammability (solid, gas): not applicable
Upper explosion limit: not applicable
Lower explosion limit: not applicable
Vapour pressure : not applicable
Relative vapour density: not applicable
Relative density: no data available
Density : 1,24 -1,27 g/cm³ @20 °C
Water solubility : completely miscible
Partition coefficient: not applicable
n-octanol/water not applicable
Ignition temperature : not applicable
Thermal decomposition: > 200 °C
Viscosity, dynamic: no data available
Viscosity, kinematic: no data available
Explosive properties: Not explosive
Oxidizing properties: none

9.2 Other information

No further information available.

10. Stability and reactivity**10.1. Reactivity**

Advice: No decomposition if stored and applied as directed.

10.2. Chemical stability

Advice : No decomposition if stored and applied as directed.

10.3. Possibility of hazardous reactions

Hazardous reactions: Incompatible with oxidizing agents..

10.4. Conditions to avoid

Conditions to avoid: Heat, flames and sparks

Thermal decomposition: >200 °C

10.5. Incompatible materials

Materials to avoid: Strong oxidizing agents
Strong bases
chromium trioxide
potassium manganite
potassium chlorate

10.6. Hazardous decomposition products

Hazardous decomposition: Heating or fire can release toxic gas.

products Carbon oxides
Acrolein

11. Toxicological information

11.1. Information on toxicological effects

Product: GEN 3 6-4

Irritation

Skin

Remarks: No skin irritation

Eyes

Remarks : No eye irritation

Sensitisation

Remarks: No sensitizing effect known.

Other information:

Experiences with human exposure: Ingestion may cause irritation to the gastro-intestinal tract with nausea and vomiting.
Health injuries are not known or expected under normal use.

12. Ecological information

12.1. Toxicity

Product: GEN 3 6-4

Acute toxicity Fish

Species : Pimephales promelas
Exposure Time : 96 h
Value type : LC50
Value : > 5.000 mg/l

Toxicity to daphnia and other aquatic invertebrates

Species: Daphnia magna
Exposure time : 48 h
Value type : LC50
Value : > 5.000 mg/l

12.2. Persistence and degradability

Product: GEN 3 6-4

Biochemical Oxygen Demand (BOD): BOD₅ @20°C 300 kg O₂/kg fluid
Chemical Oxygen Demand (COD): COD: ca. 650 kg O₂/kg fluid

Additional ecological information: Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system

13. Disposal considerations

13.1. Waste treatment methods

Product: Disposal together with normal waste is not allowed. Do not let product enter drains. Diluted product can be disposed as waste water, when in compliance with the local regulations..

Contaminated packaging: Empty remaining contents. Do not burn, or use a cutting torch on, the empty drum. Risk of explosion. Offer rinsed packaging material to local recycling facilities. Suitable cleaning agents:

Water

European Waste Catalogue
Number:

No waste code according to the European Waste Catalogue can be assigned for this product, as the intended use dictates the assignment. The waste code is established in consultation with the regional waste disposer.

14. Transport information

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packaging group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

IMDG : Not applicable

15. Regulatory information

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

WGK (DE)

WGK:1; slightly water endangering; WGK (DE); Self-classification according VwVwS of 17 May 1999, Annex 4.

Other regulations:

Occupational restrictions: Take note of Dir 92/85/EEC on the safety and health of pregnant workers at work and of Dir 94/33/EC on the protection of young people at work..

15.2. Chemical Safety Assessment

Currently we do not have any Information from our supplier about this.

16. Other information

The information provided in this Safety Data Sheet is correct to our knowledge at the date of its revision. The information given only describes the products with regard to safety arrangements and is not to be considered as a warranty or quality specification and does not constitute a legal relationship.

The information contained in this Safety Data Sheet relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text