



KROSS

Empowering Oil



NORDIS G12

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product name: NORDIS G12
Product code: K-AF-130721-001

1.1. Product identifier

REACH Registration Notes: This material is a mixture. All components have been registered under R EACH by the Manufacturer or Supplier.

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

Identified uses: Automotive Industry.

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical and Chemical Hazards: Not classified.
Human health: Acute Tox. 4 - H302; STOT Rep. 2 - H373
Environment: Not classified.
Xn; R22.

Classification (1999/45/EEC)

2.2. Label elements

Contains: Mono Ethylene Glycol
Label in Accordance With (EC) No. 1272/2008



Signal Word

Warning

Hazard Statements

H302: Harmful if swallowed.
H373: May cause damage to organs Kidneys through prolonged or repeated exposure if swallowed.

Precautionary Statements

P260: Do not breathe dust/fume/gas/mist/vapours/spray.
P270: Do not eat, drink or smoke when using this product.
P301+312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P501a: Dispose of contents/container to a registered waste disposal company

Supplementary Precautionary Statements

P330: Rinse mouth.

2.3. Other hazards

Not Classified as PBT/vPvB by current EU criteria.

2.4. Validity term

2 years



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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Mono Ethylene Glycol 60-99%

CAS-No.: 107-21-1

EC No.: 203-473-3

Registration Number: 01-2119456816-28

Classification (EC 1272/2008)

Acute Tox. 4 - H302

STOT Rep. 2 - H373

Classification (67/548/EEC)

Xn;R22.

POTASSIUM HYDROXIDE 0.1 - 0.5%

CAS-No.: 1310-58-3

EC No.: 215-181-3

Registration Number: 01-2119487136-33-xxxx

Classification (EC 1272/2008)

Acute Tox. 4 - H302

Skin Corr. 1A - H314

Classification (67/548/EEC)

C;R35

Xn;R22

The Full Text for all R-Phrases and Hazard Statements is Displayed in Section 16

**REACH Registration Notes
under REACH by the Manufacturer
Composition Comments
Preparation**

**This material is a mixture. All components have been registered
or Supplier.**

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General Information

Remove affected person from source of contamination.

General first aid, rest, warmth and fresh air.

Place unconscious person on the side in the recovery position and ensure breathing can take place.

CAUTION! First aid personnel must be aware of own risk during rescue!

Inhalation.

Remove victim immediately from source of exposure.

Place unconscious person on the side in the recovery position and ensure breathing

Get medical attention.

Ingestion

DO NOT INDUCE VOMITING!

When risk of unconsciousness, place and transport the victim in secured side position.

Drink plenty of water.

Do not give victim anything to drink if he is unconscious.

Get medical attention immediately!

Skin Contact

Remove contaminated clothing.

Wash the skin immediately with soap and water.

Get medical attention if any discomfort continues.

Eye Contact

Promptly wash eyes with plenty of water while lifting the eye lids.

Make sure to remove any contact lenses from the eyes before rinsing.

Continue to rinse for at least 15 minutes.
Get medical attention if any discomfort continues.

4.2. Most important symptoms and effects, both acute and delayed Inhalation.

No specific symptoms noted.

Ingestion

Harmful if swallowed

Skin Contact

No specific symptoms noted.

Eye Contact

No specific symptoms noted.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.



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SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing Media

Stop flow of material to fire.

Fire can be extinguished using:

Water fog or mist.

Alcohol resistant foam.

Carbon dioxide (CO₂).

Dry chemicals, sand, dolomite etc.

Unsuitable Extinguishing Media

None known

5.2. Special hazards arising from the substance or mixture

Unusual Fire & Explosion Hazards

Heat from a fire could result in drums bursting

Specific Hazards

Fire or high temperatures create:

Toxic gases/vapours/fumes of:

Carbon monoxide (CO).

Carbon dioxide (CO₂).

5.3. Advice for firefighters

Special Fire Fighting Procedures

Avoid breathing fire vapours.

Use water to keep fire exposed containers cool and disperse vapours.

Keep run-off water out of sewers and water sources. Dike for water control.

Protective Measures In Fire

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective clothing as described in Section 8 of this safety data sheet.

No action shall be taken involving any personal risk or without suitable training.

Do not touch or walk through spilled material.

Avoid inhalation of vapours and aerosol spray.

Provide adequate ventilation.

6.2. Environmental precautions

Protect drains by covering to avoid any spillage entering the drainage system.

Do not discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Stop leak if possible without risk.

Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate.

Wear necessary protective equipment.

Absorb in vermiculite, dry sand or earth and place into containers.

Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

6.4. Reference to other sections

For personal protection, see section 8. For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Do not use in confined spaces without adequate ventilation and/or respirator.

Eliminate all sources of ignition.

Keep away from heat, sparks and open flame.

Avoid acids, moisture, and combustible materials.

Avoid inhalation of vapours/spray and contact with skin and eyes.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a dry, cool and well-ventilated place.

Keep away from heat, sparks and open flame.

7.3. Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Name	STD	TWA - 8Hrs		STEL - 15 Min		Notes
Mono Ethylene Glycol	WEL	20 ppm(Sk)	52 mg/m ³ (Sk)	20 ppm(Sk)	104 mg/m ³ (Sk)	
POTASSIUM HYDROXIDE	WEL			2 mg/m ³		

WEL = Workplace Exposure Limit.

Ingredient Comments

WEL = Workplace Exposure Limits

No DNEL available

No PNEC available

8.2. Exposure controls Protective Equipment



Engineering Measures

Must not be handled in confined space without sufficient ventilation.

Provide adequate general and local exhaust ventilation.

Respiratory Equipment

If ventilation is insufficient, suitable respiratory protection must be provided.

Hand Protection

Chemical resistant gloves required for prolonged or repeated contact.

Use protective gloves made of:

Impermeable material.

The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

Eye Protection

Wear approved safety goggles.

Other Protection

Wear suitable protective clothing as protection against splashing or contamination.

Provide eyewash station and safety shower.

Hygiene Measures

Wash at the end of each work shift and before eating, smoking and using the toilet.

Wash promptly with soap & water if skin becomes contaminated.

DO NOT SMOKE IN WORK AREA!

Environmental Exposure Controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.



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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Liquid Hygroscopic Viscous
Colour	May be colourless or dyed in various colours depending on customer requirements
Odour	Odourless
Solubility	Miscible with water Miscible with: Acetone Alcohol
Initial Boiling Point and Boiling Range:	197 760 mm Hg
Melting Point (°C)	-12
Relative Density	1.10 @ 20 °C
Vapour Pressure	0.05 kPa @ 20 °C
pH-Value, Conc. Solution	approx. 8.3 50% solution
Viscosity	50-60 cps
Flash Point (°C)	111 CC (Closed cup).
Auto Ignition Temperature (°C)	400
Partition Coefficient (N-Octanol/Water)	-1.36

9.2. Other information

Not known.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

There are no known reactivity hazards associated with this product.

10.2. Chemical stability

No particular stability concerns. Avoid: Heat, sparks, flames. Moisture.

10.3. Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur

10.4. Conditions to avoid

Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials

Materials To Avoid

Acids, oxidising. Strong oxidising substances. Sulphuric Acid, Oleum, Phosphorous Pentasulphide, Chlorosulphonic acid

10.6. Hazardous decomposition products

None under normal conditions.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Toxicological Information

Toxicological information on major component only. As Ethanediol

Acute Toxicity (Oral LD50)	7712 mg/kg Rat
Acute Toxicity (Dermal LD50)	> 3500 mg/kg Mouse
Acute Toxicity (Inhalation LC50)	> 2.5 mg/l (vapours) Rat 6 hrs Negative.

Carcinogenicity

Not available.

Reproductive Toxicity

Fertility: Dose Level: >1000 mg/kg

Not expected to be a reproductive toxicant

Reproductive Toxicity - Development

Not available.

STOT - Single Exposure

Not available.

Target Organs

Kidneys

Inhalation

Not relevant at normal room temperatures. When heated, irritating vapours may be formed.

Ingestion.

Harmful if swallowed.

Skin Contact

Skin irritation is not anticipated when used normally.

Eye Contact

May cause temporary eye irritation.

Route of entry

Ingestion.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:

Not regarded as dangerous for the environment. Ecotoxicological data on main component only

12.1. Toxicity

Acute Toxicity - Fish

LC50 96 hours 72860 mg/l Pimephales promelas (Fat-head Minnow)

Acute Toxicity - Aquatic Invertebrates

EC50 48 hours > 100 mg/l Daphnia magna

Acute Toxicity - Aquatic Plants

EC50 96 hours > 6500 mg/l Selenastrum capricornutum

Chronic Toxicity - Fish Early

NOEC 15380 mg/l Pimephales promelas (Fat-head Minnow)

Life Stage

7 days

12.2. Persistence and degradability

Degradability:

Readily biodegradable

12.3. Bioaccumulative potential

Bioaccumulative Potential:

Bioconcentration potential is low.

Partition Coefficient Partition coefficient (n-octanol/water): -1.36

12.4. Mobility in soil

Mobility:

This material has low volatility and is water soluble hence the potential for mobility is high.

12.5. Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB Substances.

12.6. Other adverse effects

None known.



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SECTION 13: DISPOSAL CONSIDERATIONS

General Information

Waste is classified as hazardous waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority.

13.1. Waste treatment methods

This material must be disposed of via an Authorised Waste/Disposal Company in accordance with Local and or National Waste Disposal Regulations.

Waste Class

Waste Code: 07 01 04

SECTION 14: TRANSPORT INFORMATION

General

The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA,ADR/RID).

14.1. UN number

No information required.

UN No. (ADR/RID/ADN)

None

14.2 UN Proper shipping name

No information required.

14.3 Transport hazard class(es)

No information required.

ADR/RID/ADN Class

Not classified for transportation.

IMDG Class

None

ICAO Class/Division

None

Transport Labels

No transport warning sign required.

14.4. Packing group

No information required.

ADR/RID/ADN Packing group

None

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant No.

14.6. Special precautions for user

No information required.

EMS

None

Hazard No. (ADR)

Not relevant.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

No information required.

SECTION 15: REGULATORY INFORMATION

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

Uk Regulatory References

The Control of Substances Hazardous to Health Regulations 2002 (S.I 2002 No. 2677) with amendments.
Health and Safety at Work Act 1974.

Statutory Instruments

Control of Substances Hazardous to Health.

Guidance Notes

Workplace Exposure Limits EH40.

EU Legislation

Dangerous Substance Directive 67/548/EEC.

Dangerous Preparations Directive 1999/45/EC.

Regulation (EC) No 1272/2008 CLP

Regulation (EC) No 1907/2006 REACH

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Revision Comments

Classification in line with CLP Minor alterations to composition - Section 2

Issued By PCL Technical Team

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Revision 4

Supersedes Date 31/05/2011

SDS No. 11950

Safety Data Sheet Status Approved

Date 06/08/09

Risk Phrases In Full

R35 Causes severe burns.

R22 Harmful if swallowed.

Hazard Statements In Full

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H373 May cause damage to organs <<Organs>> through prolonged or repeated exposure.

The information in this document has been compiled on the basis of the best available knowledge in accordance with the legislative requirements. It does not imply that the information is complete or accurate in all cases. It is the user's responsibility to satisfy themselves as to the application of the information and/or the recommendations given for their own use.