Material Safety Data Sheet

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

Product name **N10**

Product Use Viscosity Reference Standard.

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2. Composition/information on ingredients

Highly refined mineral oil and additives.

Product/ingredient name:	Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics
Identifiers:	REACH no. 01-2119456620-43, Index: 649-422-00-2
%:	≥ 75 - <90
67/548/EEC:	Xn< R65, R66
Regulation (EC) no. 1272/2008 (CLP):	Asp. Tox 1, H304
Type:	[1] [2]

See Section 16 for the full text of the R Phrases declared above. Occupational Exposure Limit(s), if available, are listed in Section 8.

Type:
[1]: Substance classified with a health or environmental hazard
[2]: Substance with a workplace exposure limit
[3]: Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XII
[4]: Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XII
[5]: Substance of equivalent concern

3. Hazards identification

3.1: Classification of the substance or mixture

Product definition: Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]:
Asp. Tox. 1, H304

Classification according to Directive 1999/45/EC [DPD]:
The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification: Xn, R65, R66

Human health hazards: Harmful: may cause lung damage if swallowed. Repeated exposure may cause skin dryness or cracking.

See Section 16 for the full text of the R phrases or H statements declared above.
See Sections 11 and 12 for more detailed information on health effects and symptoms and environmental hazards.

3.2: Label elements

Hazard pictograms

Signal word: Danger
Hazard statements: H304 – May be fatal if swallowed and enters airways

Precautionary statements:
Prevention: Not applicable
Response: P301 + P310 + P331 – IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting
Storage: P405 – Store locked up
Disposal: P501 – Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazardous ingredients: Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics
Supplemental label elements: Repeated exposure may cause skin dryness or cracking.

Special packaging requirements
Containers to be fitted with child-resistant fastenings: Not applicable
Tactile warning of danger: Not applicable

3.3: Other hazards
Other hazards which do not result in classification Defatting to skin. Prolonged or repeated contact may dry skin and cause irritation.

4. First-aid measures

4.1: Description of first aid measures
Eye Contact In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Check for and remove any contact lenses. Get medical attention.
Skin contact Immediately wash exposed skin with soap and water or use recognised skin cleanser. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if irritation develops.
Inhalation If inhaled, remove to fresh air. Get medical attention if symptoms appear.
Ingestion If swallowed, do NOT induce vomiting. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Aspiration hazard if swallowed - can enter lungs and cause damage. Obtain medical attention immediately.
Notes to physician No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2: Most important symtoms and effects, both acute and delayed
See Section 11 for more detailed information on health effects and symptoms.

4.3: Indication of any immediate medical attention and special treatment needed
Notes to physician Treatment should in general be symptomatic and directed to relieving any effects. Product can be aspirated on swallowing or following regurgitation of stomach contents, and can cause severe and potentially fatal chemical pneumonitis, which will require urgent treatment.

Because of the risk of aspiration, induction of vomiting and gastric lavage should be avoided. Gastric lavage should be undertaken only after endotracheal intubation. Monitor for cardiac dysrhythmias.

5. Fire-fighting measures

5.1: Extinguishing Media

Suitable In case of fire, use water fog, foam, dry chemical or CO2 extinguisher or spray.
Not Suitable Do not use water jet.

5.2: Special hazards arising from the substance or mixture

Hazard from the substance/mixture: In a fire or if heated, a pressure will occur and the container may burst.
Hazardous combustion products: Combustion products may include the following: carbon oxides (CO, CO2) (carbon monoxide, carbon dioxide)

5.3: Advice for firefighters

Special precautions for firefighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. Fire-fighters' protective slothing will only provide limited protection. Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

6. Accidental release measures

6.1: Personal Precautions, protective equipment and emergency procedures

For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from enetring. Do not touch or walk through spilt material. Floors may be slippery< use care to avoid falling. Avoid breathing in vapour or mist. Provide adequate ventilation. Put on appropriate personal protective equipment. Contact emergency personnel.
For emergency responders: Entry into a confined space or poorly ventilated area contaminated with vapour, mist or fume is extremely hazardous without the correct respiratory protective equipment and a safe system of work. Wear self-contained breathing apparatus. Wear a suitable chemical protective suit. Chemical resistant boots. See also information in 'for non-emergency personnel'.

6.2: Environmental precautions

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3: Methods and material for containment and cleaning up

Small spill Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of cia a licensed waste disposal contractor.
Large spill Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. Sand, earth, vermiculite or diatomaceous absorbent material may pose the same hazard as the spilt product. Dispose of via a licensed waste disposal contractor.

6.4: References to other sections

See section 1 for emergency contact information.
See section 5 for firefighting measures.
See section 8 for information on appropriate personal protective equipment.
See section 12 for environmental precautions.
See section 13 for additional waste treatment information.

7. Handling and storage

7.1: Precautions for safe handling

Protective measures: Put on appropriate personal protective equipment. Do not swallow. Never siphon my mouth. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or on approved alternative made from a compatible material, kept tightly closed when not in use. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Do not reuse container. Empty containers retain product residue and can be hazardous. Use only with adequate ventilation. Avoid prolonged or repeated contact with skin. During metal working, solid particles from workpieces or tools will contaminate the fluid and may cause abrasions of the skin. Where such abrasions result in penetration of the skin, first aid treatment should be applied as soon as reasonably possible. The presence of certain metals in the workpiece or tool, such as chromium, cobalt and nickel, can contaminate the metalworking fluid and as a result mau induce allergic skin reactions. Aspiration hazard if swallowed. Can enter lungs and cause damage. Keep away from ignition sources such as heat/sparks/open flame. No smoking. Concentrations of mist, fumes and vapours in enclosed spaces may result in the formation of explosive atmospheres. Excessive splashing, agigation or heating must be avoided.

Advice on general occupational hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2: Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Store locked up. Keep away from heat and direct sunlight. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Store and use only in equipment/containers designed for use with this product. Do not store in unlabelled containers.

Not suitable: Prolonged exposure to elevated temperature.

7.3: Specific end use(s) recommendations

See section 1.2 and Exposure scenarious in annex, if applicable.

8. Exposure controls/personal protection

8.1: Control Parameters

Occupational exposure limits

Product name: Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2%, aromatics

Exposure limit values: EH40/2005 WELs (United Kingdom (UK)). TWA: 1200 mg/m^3 8 hours.#

Whilst specific OELs for certain components may be shown in this section, other components may be present in any mist, vapour or dust produced. Therefore, the specific OELs may not be applicable to the product as a whole and are provided for guidance only.

Recommended monitoring procedures: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres – Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy). European Standard EN 14042 (Workplace atmospheres – Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents). European Standard EN 482 (Workplace atmospheres – General requirements for the performance of procedures for the measurement of chemical agents. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Derived No Effect Level: No DNELs/DMELs available.
Predicted No Effect concentration: No PNECs available.

8.2: Exposure Controls
Appropriate Engineering controls: Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits. All activities involving chemicals should be assessed for their risks to health, to ensure after other forms of control measures (e.g. engineering controls) have been suitable for use, be kept in good condition and properly maintained. Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards. For further information contact your national organization for standards. The final choice of protective equipment will depend upon a risk assessment. It is important to ensure that all items of personal protective equipment are compatible.

Individual protection measures
Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the workstation location.
Respiratory protection: Use with adequate ventilation.
In case of insufficient ventilation, wear suitable respiratory equipment.
Recommended: half-face mask – organic vapor filter (Type A).
The correct choice of respiratory protection depends upon the chemicals being handled, the conditions of work and use, and the condition of the respiratory equipment. Safety procedures should be developed for each intended application. Respiratory protection equipment should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.
Eye/face protection: Safety glasses with side shields.

Skin protection
Hand protection:

General information:
Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. The correct choice of protective gloves depends upon the chemicals being handled, and the conditions of work and use. Most gloves provide protection for only a limited time before they must be discarded and replaced. (Even the best chemically resistant gloves will break down after repeated chemical exposure). Gloves should be chosen in consultation with the supplier/manufacturer and taking account of a full assessment of the working conditions.
Recommended: Nitrile Gloves

Breakthrough time:
Breakthrough time data are generated by glove manufacturers under laboratory test conditions and represent how long a glove can be expected to provide effective permeation resistance. It is important when following breakthrough time recommendations that actual workplace conditions are taken into account. Always consult with your glove supplier for up-to-date technical information on breakthrough times for the recommended glove type. Our recommendations on the selection of gloves are as follows:

Continuous contact:

Gloves with a minimum breakthrough time of 240 minutes or >480 minutes if suitable gloves can be obtained.
If suitable gloves are not available to offer that level of protection, gloves with shorter breakthrough times may be acceptable as long as appropriate glove maintenance and replacement regimes are determined and adhered to.

Short term/splash protection:
Recommended breakthrough times as above.
It is recognised that for short-term, transient exposures, gloves with shorter breakthrough times may commonly be used. Therefore, appropriate maintenance and replacement regimes must be determined and rigorously followed.

Glove-thickness:
For general applications, we recommend gloves with a thickness typically greater than 0.35 mm. It should be emphasised that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material. Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times.
Glove thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturer's technical data should always be taken into account to ensure selection of the most appropriate glove for the task.

Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example:

- Thinner gloves (down to 0.1 mm or less) may be required where a high degree of manual dexterity is needed. However, these gloves are only likely to give short duration protection and would normally be just for single use applications, then disposed of.
- Thicker gloves (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential.

Skin and body: Use of protective clothing is good industrial practice.
Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Wear clothing and footwear that cannot be penetrated by chemicals or oils.
Cotton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin. Overalls should be laundered on a regular basis. When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required.

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.

9. Physical and chemical properties

Autoignition temp.	220 °C
Flash point	74 °C (CLOSED CUP) Pensky-Martens.
Colour	Yellow. (Light.)
Odour	Hydrocarbon.
Odour threshold	Not available.
Physical state	Liquid.
Boiling point / range	200 °C
Density	813kg/m3(0.8g/cm^3) at 15°C
Solubility	insoluble in water.
Viscosity	kinematic: 2.2 $mm^{2/}$s (2.2 cSt) at 40°C

10. Stability and reactivity

10.1: Reactivity: No specific test data available for this product. Refer to Conditions to avoid and Incompatible materials for additional information.

10.2: Chemical Stability: The product is stable.

10.3: Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.
Under normal conditions of storage and use, hazardous polymerisation will not occur.

10.4: Conditions to avoid: Avoid all possible sources of ignition (spark or flame).

10.5: Incompatible materials: Reactive or incompatible with the following materials: oxidising materials.

10.6: Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological information

11.1: Information on toxicological effects

Acute toxicity estimates: Not available.

Information on the likely routes of exposure: Routes of entry anticipated: Dermal, Inhalation.

Potential acute health effects

Inhalation: Vapour inhalation under ambiemy conditions is not normally a problem due to low vapour pressure.

Ingestion: Aspiration hazard if swallowed – harmful or fatal if liquid is aspirated into lungs. Ingestion of large quantities may cause nausea and diarrhoea.

Skin contact: Defatting to skin. May cause skin dryness and irritation.

Eye contact: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation: Exposure to high concentrations can cause dizziness, lightheadedness, headache, nausea and blurred vision. Higher levels may cause unconsciousness.
May be harmful if exposure to vapour, mists or fumes resulting from thermal decomposition products occurs.

Ingestion: Adverse symptoms may include the following: nausea or vomiting.

Skin contact: Adverse symptoms may include the following: irritation, dryness or cracking.

Eye contact: No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Inhalation: Overexposure to the inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract.

Ingestion: Ingestion of large quantities may cause nausea and diarrhoea.

Skin contact: Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis.
Eye contact: Potential risk of transient stinging or redness if accidental eye contact occurs.

Potential chronic health effects
General: Prolonged or repeated contact can defat the skin and lead to irrirtation, cracking and/or dermatitis.
Carcinogenicity: No known significant effects or critical hazards.
Mutagenicity: No known significant effects or critical hazards.
Developmental effects: No known significant effects or critical hazards.
Fertility effects: No known significant effects or critical hazards.

12. Ecological information

12.1: Toxicity
Environmental hazards: Not classified as dangerous.

12.2: Persistence and degradability
Expected to be biodegradable.

12.3: Bioaccumulative potential
This product is not expected to bioaccumulate through food chains in the environment.

12.4: Mobility in soil
Soil/water partition coefficient (K_{oc}) Not available.
Mobility: Spillages may penetrate the soil causing ground water contamination.

12.5: Results of PBT and vPvB assessment
PBT: Not applicable.
VpvB: Not applicable.

12.6: Other adverse effects
Other ecological information: Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.

Disposal considerations

13.1: Waste treatment methods

Product
Methods of disposal: Where possible, arrange for product to be recycled. Dispose of via an authorised person/licensed waste disposal contractor in accordance with local regulations.
Hazardous waste: Yes.

European Waste Catalogue (EWC)
Waste code: 13 02 05*
EWC: Mineral based non-chlorinated engine, gear and lubricating oils.
However, deviation from the intended use and/or the presence of any potential contaminants may require an alternative waste disposal code to be assigned by the end user.

Packaging
Methods of disposal: Where possible, arrange for product to be recycled. Dispose of via an authorised person/licensed waste disposal contractor in accordance with local regulations.
Waste code: 15 01 10*
EWC: Packaging containing residues of or contaminated by dangerous substances.

Special precautions: This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Empty containers represent a fire hazard as they may contain flammable product residues and vapour. Never weld, solder or braze empty containers. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

14. Transport information

Not classified as hazardous for transport (ADR, RID, UN , IMO, IATA/ICAO).
ADN Classification code: 9

15. Regulatory information

15.1: Safety, health and environmental regulations/legislation specific for the substance or mixture
EU Regulation (EC) No. 1907/2006 (REACH)
Annex XIV – List of substances subject to authorisation
Substances of very high concern
None of the components are listed.

Annex XVII – Resctrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles: Not applicable.

Other regulations
REACH Status: The company, as identified in Section 1, sells this product in the EU in compliance with the current requirements of REACH.

United States Inventory (TSCA 8b):	All components are listed or exempted.
Australia Inventoru (AICS)	All components are listed or exempted.
Canada Inventory	All components are listed or exempted.
China Inventory (IECSC)	All components are listed or exempted.
Japan Inventory (ENCS)	All components are listed or exempted.
Korea Inventory (KECI)	All components are listed or exempted.
Philippines Inventory (PICCS)	All components are listed or exempted.
Taiwan Inventory (CSNN)	All components are listed or exempted.

15.2: Chemical Safety Assessment
This product contains substances for which Chemical Safety Assessments are still required.

16. Other information

Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
CAS = Chemical Abstracts Service
CLP = Classification, Labelling and Packaging Regulations [Regulation (EC) No. 1272/2008]
CSA = Chemical Safety Assessment
CSR = Chemical Safety Report
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level

DPD = Dangerous Preparations Directive [1999/45/EC]
DSD = Dangerous Substances Directive [67/548/EEC]
EINECS = European Inventory of Existing Commercial chemical Substances
ES = Exposure Scenario
EUH Statement = CLP-specific Hazard Statement
EWC = European Waste Catalogue
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = Logarithm of the octanol/water partition coefficient
MARPOL 73/78 = International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
OECD = Organisation for Economic Co-Operation and Development
PBT = Persistent, Bioaccumulative and Toxic
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
RRN = REACH Registration Number
SADT = Self-Accelerating Decomposition Temperature
SVHC = Substances of Very High Concern
STOT-RE = Specific Target Organ Toxicity – Repeated Exposure
STOT-SE = Specific Target Organ Toxicity – Single Exposure
TWA = Time Weighted Average
UN = United Nations
UVCB = Complex Hydrocarbon Substance
VOC = Volatile Organic Compound
vPvB = Very Persistent and Very Bioaccumulative

Full text of abbreviated H Statements: **H304: May be fatal if swallowed and enters airways.**
Full text of classifications [CLP/GHS]: **Asp. Tox. 1, H304 ASPIRATION HAZARD: Category 1**
Full text of abbreviated R phrases:

R65: Harmful: May cause lung damage if swallowed.
R66: Repeated exposure may cause skin dryness or cracking.
Full text of classifications [dsd/dpd]: **Xn: Harmful**

The data and advice given apply when the product is sold for the stated application or applications. The product is not sold as suitable for any other application. Use of the product for applications other than as stated in this sheet may give rise to risks not mentioned in this sheet. You should not use the product other than for the stated application or applications without seeking advice from us.
If you have purchased the product for supply to a third party for use at work, it is your duty to take all necessary steps to secure that any person handling or using the product is provided with the information in this sheet.If you are an employer, it is your duty to tell your employees and others who may be affected of any hazards described in this sheet and of any precautions which should be taken.
Further copies of this Safety Data Sheet may be obtained from Poulten Selfe & Lee Ltd.