

# SAFETY DATA SHEET



Revision date: 10-Aug-2023

Revision Number 4

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

### Product identifier

**Product Name** MAKON NF-12

**Product Code(s)** 000000050123

### Other means of identification

**UN number** 3082

**CAS No.** 68154-97-2

### Recommended use of the chemical and restrictions on use

**Recommended use** Surfactant.  
For industrial use only.

**Uses advised against** No information available

### Supplier

Ixom Operations Pty Ltd  
ABN: 51 600 546 512  
Level 8, 1 Nicholson Street  
Melbourne 3000  
Australia

Telephone Number: +61 3 9906 3000

### Emergency telephone number

Emergency telephone number **1 800 033 111 (ALL HOURS)**

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the "Other Information" section at the end of this Data Sheet.

## 2. HAZARDS IDENTIFICATION

### GHS Classification

Classified as dangerous goods in accordance with the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG).

Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082 are not subject to the provisions of the Australian Code for the Transport of Dangerous Goods by Road and Rail when transported by road or rail in: packagings that do not incorporate a receptacle exceeding 500 kg(L); or IBCs.

Classified as a hazardous chemical in accordance with the criteria of Safe Work Australia - Globally Harmonized System (GHS).

<b>Acute toxicity - Oral</b>	Category 4
<b>Acute toxicity - Dermal</b>	Category 4
<b>Skin corrosion/irritation</b>	Category 2

Serious eye damage/eye irritation	Category 1
Specific target organ toxicity (repeated exposure)	Category 1
Acute aquatic toxicity	Category 2
Chronic aquatic toxicity	Category 2

**SIGNAL WORD**

Danger

**Label elements**

Environment  
Health hazard  
Corrosion  
Exclamation mark

**Hazard statements**

H302 - Harmful if swallowed  
H312 - Harmful in contact with skin  
H315 - Causes skin irritation  
H318 - Causes serious eye damage  
H372 - Causes damage to organs through prolonged or repeated exposure

The following health/environmental hazard categories fall outside the scope of the Workplace Health and Safety Regulations:  
H411 - Toxic to aquatic life with long lasting effects

**Precautionary Statements - Prevention**

Do not breathe fume, gas, mist, vapours, spray  
Wash face, hands and any exposed skin thoroughly after handling  
Wash eyes thoroughly after handling.  
Do not eat, drink or smoke when using this product  
Avoid release to the environment

**Precautionary Statements - Response**

Get medical advice/attention if you feel unwell  
Specific treatment (see First aid on this SDS)  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
Immediately call a POISON CENTER or doctor/physician  
IF ON SKIN: Wash with plenty of soap and water  
If skin irritation occurs: Get medical advice/attention  
Wash contaminated clothing before reuse  
Call a POISON CENTER or doctor/physician if you feel unwell  
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
Rinse mouth  
Do NOT induce vomiting  
Collect spillage

**Precautionary Statements - Storage**

Store in a well-ventilated place. Keep cool

**Precautionary Statements - Disposal**

Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable

**Other hazards which do not result in classification**

Poisons Schedule (SUSMP) None allocated

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Mixture**

Chemical name	CAS No.	Weight-%
Alcohols, C10-12, ethoxylated propoxylated	68154-97-2	90-100
Propylene glycol	57-55-6	<3

**4. FIRST AID MEASURES****Description of first aid measures**

<b>General advice</b>	For advice, contact a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.
<b>Inhalation</b>	Remove to fresh air. Call a physician if symptoms occur.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention if symptoms occur.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Call a physician if symptoms occur.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician.
<b>Self-protection of the first aider</b>	Use personal protective equipment as required. Avoid contact with skin, eyes, and clothing. See section 8 for more information.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** Irritation/Corrosion. May cause redness and tearing of the eyes. Erythema (skin redness).

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically. Can cause corneal burns.

**5. FIRE FIGHTING MEASURES****Suitable Extinguishing Media**

**Suitable Extinguishing Media** Alcohol resistant foam is the preferred firefighting medium but, if it is not available, normal protein foam can be used.

**Unsuitable extinguishing media** Solid water jet/stream may scatter and spread the fire.

**Specific hazards arising from the chemical**

**Specific hazards arising from the chemical** Combustible liquid. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Environmentally hazardous.

**Hazardous combustion products** Carbon oxides.

**Special protective actions for fire-fighters**

**Special protective equipment for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

Hazchem code                      •3Z

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal precautions**                      Evacuate personnel to safe areas. Use personal protective equipment as required. Keep people away from and upwind of spill/leak. Do not touch or walk through spilled material.

**Other information**                              Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

**For emergency responders**                      Use personal protection recommended in Section 8.

### Environmental precautions

**Environmental precautions**                      Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Refer to protective measures listed in Sections 7 and 8.

### Methods and material for containment and cleaning up

**Methods for containment**                      Stop leak if you can do it without risk. Do not touch or walk through spilled material. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

**Methods for cleaning up**                      Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers. After cleaning, flush away traces with water. Never return spill or leaks to original containers for re-use.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Advice on safe handling**                      Use personal protection equipment. Avoid contact with skin, eyes, and clothing. Avoid breathing vapors or mists. Take precautionary measures against static discharges. Handle in accordance with good industrial hygiene and safety practice.

**General hygiene considerations**                      Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes, and clothing. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wear suitable gloves.

### Conditions for safe storage, including any incompatibilities

**Storage Conditions**                              Keep containers tightly closed in a dry, cool and well-ventilated place. Store away from sources of heat or ignition. Keep container closed when not in use.

Classified as a C2 (COMBUSTIBLE LIQUID) for the purpose of storage and handling, in accordance with the requirements of AS 1940. Refer to State Regulations for storage and transport requirements.

**Incompatible materials**                      Strong oxidizing agents.

**Poisons Schedule (SUSMP)**                      None allocated

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

**Exposure Limits** No value assigned for this specific material by Safe Work Australia. However, Workplace Exposure Standard(s) for constituent(s):

Propane-1,2-diol (propylene glycol) (total: vapour & particulates): 8hr TWA = 474 mg/m<sup>3</sup> (150 ppm); (particulates only): 8hr TWA = 10 mg/m<sup>3</sup>

As published by Safe Work Australia Workplace Exposure Standards for Airborne Contaminants.

TWA - The time-weighted average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week.

These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

### Appropriate engineering controls

**Engineering controls** Eyewash stations. Apply technical measures to comply with the occupational exposure limits.

If in the handling and application of this material, safe exposure levels could be exceeded, the use of engineering controls such as local exhaust ventilation must be considered and the results documented. If achieving safe exposure levels does not require engineering controls, then a detailed and documented risk assessment using the relevant Personal Protective Equipment (PPE) (refer to PPE section below) as a basis must be carried out to determine the minimum PPE requirements.

### Individual protection measures, such as personal protective equipment

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, SAFETY SHOES, CHEMICAL GOGGLES, GLOVES, RESPIRATOR.



**Eye/face protection**

Tight sealing safety goggles.

**Skin and body protection**

Wear suitable protective clothing. Boots. Overalls.

**Hand protection**

Impervious gloves.

**Respiratory protection**

If determined by a risk assessment an inhalation risk exists, wear an organic vapour respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

**Environmental exposure controls**

No information available.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

<b>Physical state</b>	Liquid
<b>Appearance</b>	No information available
<b>Color</b>	Colourless to Light yellow
<b>Odor</b>	No information available
<b>Odor threshold</b>	No information available

<b>Property</b>	<b>Values</b>	<b>Remarks • Method</b>
<b>pH</b>	7-10 (5% aqueous)	None known
<b>pH (as aqueous solution)</b>	No data available	None known
<b>Melting point / freezing point</b>	-12.22°C	
<b>Boiling point / boiling range</b>	203.89°C	
<b>Flash point</b>	>93.9°C	Pensky-Martens Closed Cup (PMCC)
<b>Evaporation rate</b>	No data available	None known
<b>Flammability (solid, gas)</b>	No data available	None known
<b>Flammability Limit in Air</b>		None known
<b>Upper flammability or explosive limits</b>	No data available	
<b>Lower flammability or explosive limits</b>	No data available	
<b>Vapor pressure</b>	No data available	
<b>Vapor density</b>	No data available	
<b>Relative density</b>	1.00	
<b>Water solubility</b>	No data available	
<b>Solubility(ies)</b>	No data available	None known
<b>Partition coefficient</b>	No data available	None known
<b>Autoignition temperature</b>	No data available	
<b>Decomposition temperature</b>	No data available	None known
<b>Kinematic viscosity</b>	No data available	None known
<b>Dynamic viscosity</b>	230 cP @25°C	None known

**Other information**

<b>Pour Point</b>	-10°C
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**10. STABILITY AND REACTIVITY****Reactivity**

<b>Reactivity</b>	Non-reactive under normal conditions of use, storage and transport.
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**Chemical stability**

<b>Stability</b>	Stable under normal conditions.
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**Explosion data**

**Sensitivity to mechanical impact** None.

**Sensitivity to static discharge** None.

**Possibility of hazardous reactions**

<b>Possibility of hazardous reactions</b>	None under normal processing.
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**Conditions to avoid**

<b>Conditions to avoid</b>	Heat, flames and sparks. Static discharge (electrostatic discharge).
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**Incompatible materials**

<b>Incompatible materials</b>	Strong oxidizing agents.
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**Hazardous decomposition products**

Hazardous decomposition products Carbon oxides.

**11. TOXICOLOGICAL INFORMATION****Acute toxicity****Information on likely routes of exposure**

<b>Product Information</b>	No adverse health effects expected if the chemical is handled in accordance with this Safety Data Sheet and the chemical label. Symptoms or effects that may arise if the chemical is mishandled and overexposure occurs are:
<b>Inhalation</b>	May cause irritation.
<b>Eye contact</b>	Causes serious eye damage.
<b>Skin contact</b>	Causes skin irritation.
<b>Ingestion</b>	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.
<b>Symptoms</b>	Irritation/Corrosion. May cause redness and tearing of the eyes. Erythema (skin redness).

**Numerical measures of toxicity - Product Information**

Refer to component information below.

The following values are calculated based on chapter 3.1 of the GHS document

**Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Propylene glycol	= >20 000 mg/kg ( Rat )	= >2000 mg/kg ( Rabbit )	= >317042 mg/m <sup>3</sup> /2H ( Rabbit )

See section 16 for terms and abbreviations

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

<b>Skin corrosion/irritation</b>	Causes skin irritation.
<b>Serious eye damage/eye irritation</b>	Causes serious eye damage.
<b>Respiratory or skin sensitization</b>	Not a respiratory sensitizer.
<b>Germ cell mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP. (OSHA - Occupational Safety and Health Administration) (IARC - International Agency for Research on Cancer) (NTP - National Toxicology Program).
<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	Causes damage to organs through prolonged or repeated exposure.
<b>Aspiration hazard</b>	No information available.

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

**Ecotoxicity** Keep out of waterways. Toxic to aquatic life with long lasting effects.

**Persistence and degradability**

**Persistence and degradability** No information available.

**Bioaccumulative potential**

**Bioaccumulation** No information available.

**Component Information**

Chemical name	Partition coefficient
Propylene glycol	-1.07

**Mobility**

**Mobility in soil** No information available.

**Other adverse effects****13. DISPOSAL CONSIDERATIONS****Waste treatment methods**

**Waste from residues/unused products** Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers. Empty containers should be taken to an approved waste handling site for recycling or disposal.

**14. TRANSPORT INFORMATION****ADG**

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.

**UN number** 3082  
**Proper shipping name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ALCOHOLS, C10-12, ETHOXYLATED PROPOXYLATED)  
**Hazard class** 9  
**Packing group** III  
**Hazchem code** •3Z

**IATA**

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; DANGEROUS GOODS.

**UN number** 3082  
**UN proper shipping name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ALCOHOLS, C10-12, ETHOXYLATED PROPOXYLATED)



**Transport hazard class(es)** 9  
**Packing group** III

**IMDG**

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; DANGEROUS GOODS.

**UN number** 3082  
**UN proper shipping name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ALCOHOLS, C10-12, ETHOXYLATED PROPOXYLATED)  
**Transport hazard class(es)** 9  
**Packing group** III  
**IMDG EMS Fire** F-A  
**IMDG EMS Spill** S-F  
**Marine pollutant** Yes

**15. REGULATORY INFORMATION**

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

**National regulations**

**Australia**

Classified as dangerous goods in accordance with the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG).

Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082 are not subject to the provisions of the Australian Code for the Transport of Dangerous Goods by Road and Rail when transported by road or rail in: packagings that do not incorporate a receptacle exceeding 500 kg(L); or IBCs.

Classified as a hazardous chemical in accordance with the criteria of Safe Work Australia - Globally Harmonized System (GHS).

See section 8 for national exposure control parameters

**Poisons Schedule (SUSMP)** None allocated

**National pollutant inventory**

Subject to reporting requirement

Chemical name	National pollutant inventory
Propylene glycol - 57-55-6	20 MW Threshold category 2b total 60000 MWH Threshold category 2b total 1 tonne/h Threshold category 2a total 25 tonne/yr Threshold category 1a total 400 tonne/yr Threshold category 2a total 2000 tonne/yr Threshold category 2b total

**International Inventories**

**AIIC** All the constituents of this material are listed on the Australian Inventory of Industrial Chemicals.

**Legend:**

**AIIC- Australian Inventory of Industrial Chemicals**

**International Regulations**

**The Montreal Protocol on Substances that Deplete the Ozone Layer** Not applicable

**The Stockholm Convention on Persistent Organic Pollutants** Not applicable

**The Rotterdam Convention** Not applicable

## 16. OTHER INFORMATION

Supplier Safety Data Sheet 10/ 2020

**Reason(s) For Issue:** 5 Yearly Revised Primary SDS  
Change in Hazardous Chemical Classification

**Issuing Date:** 10-Aug-2023

This Safety Data Sheet has been prepared by Ixom Operations Pty Ltd (Toxicology and SDS Services).

**Revision Note:**

The symbol (\*) in the margin of this SDS indicates that this line has been revised.

**Key or legend to abbreviations and acronyms used in the safety data sheet**

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
C	Carcinogen		

**Key literature references and sources for data used to compile the SDS**

EPA (Environmental Protection Agency)  
Acute Exposure Guideline Level(s) (AEGL(s))  
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
U.S. Environmental Protection Agency High Production Volume Chemicals  
Food Research Journal  
Hazardous Substance Database  
International Uniform Chemical Information Database (IUCLID)  
Japan GHS Classification  
Australian Industrial Chemicals Introduction Scheme (AICIS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)  
National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
Organization for Economic Co-operation and Development Screening Information Data Set  
RTECS (Registry of Toxic Effects of Chemical Substances)  
World Health Organization

**Disclaimer**

**This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Ixom Operations Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.**

**If clarification or further information is needed, the user should contact their Ixom representative or Ixom Operations Pty Ltd at the contact details on page 1.**

Ixom Operations Pty Ltd's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.

**End of Safety Data Sheet**