SAFETY DATA SHEET

Nimitz

Revision Date 08-May-2020 **Version** 3 **Product No** INS00046-27
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Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Nimitz

Synonyms Fluensulfone 480 EC
Pure substance/mixture Mixture

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

Recommended Use Nematicide
Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Address ADAMA SOUTH AFRICA (PTY) LTD
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Section 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

Aspiration toxicity	Category 1 - (H304)
Acute toxicity - Oral	Category 5 - (H303)
Skin corrosion/irritation	Category 3 - (H316)
Serious eye damage/eye irritation	Category 2 - (H319)
Skin sensitization	Category 1 - (H317)
Acute aquatic toxicity	Category 1 - (H400)
Chronic aquatic toxicity	Category 1 - (H410)

Label Elements

Hazard pictograms

Signal word Danger

Hazard Statements

H303 - May be harmful if swallowed
H304 - May be fatal if swallowed and enters airways
H316 - Causes mild skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements

P102 - Keep out of reach of children
P270 - Do not eat, drink or smoke when using this product
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P331 - Do NOT induce vomiting
P501 - Dispose of contents/ container to an approved waste disposal plant

Other Hazards

No information available

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Chemical Name	Weight-%	CAS No	EC No	GHS Classification	M-Factor
Fluensulfone	38-42	318290-98-1		Skin Sens. 1 (H317) Acute Tox. 4 (H302) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	M=10 M=1
2-Ethylhexan-1-ol	1-3	104-76-7	203-234-3	Acute Tox. 4 (H332) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335)	
Benzenesulfonic acid, C10-13-(linear)alkyl derivs., calcium salt	2-4	N/A	932-231-6	Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Aquatic Chronic 3 (H412)	
Propylene carbonate	10-14	108-32-7	203-572-1	Eye Irrit. 2 (H319)	
Hydrocarbons, C10-C13, aromatics, <1% naphthalene	33-38	N/A	922-153-0	Asp. Tox. 1 (H304) Aquatic Chronic 2 (H411)	

Full text of H- and EUH-phrases: see section 16

Section 4: FIRST AID MEASURES

First aid measures

General advice	In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). First aider: Pay attention to self-protection!.
Inhalation	Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Consult a physician if necessary.
Eye contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Call a physician immediately.
Ingestion	Do NOT induce vomiting. Rinse mouth. Drink plenty of water. If symptoms persist, call a physician.
Self-protection of the first aider	Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

Symptoms None known.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

Section 5: FIRE-FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media
No information available.

Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of toxic/corrosive gases and vapors. Combustible material.

Advice for firefighters

In the event of fire, wear self-contained breathing apparatus
In the event of fire and/or explosion do not breathe fumes.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions
Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

For emergency responders
Use personal protection recommended in Section 8.

Environmental precautions

Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

Methods and material for containment and cleaning up

Methods for cleaning up
Take up mechanically, placing in appropriate containers for disposal.

Reference to other sections

Other Information
See also section 8,13

Section 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling
Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Use with local exhaust ventilation. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity).

General Hygiene Considerations
When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Regular cleaning of equipment, work area and clothing is recommended.

Conditions for safe storage, including any incompatibilities

Storage Conditions
Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers.

Specific end use(s)

Risk Management Methods (RMM)
The information required is contained in this Material Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

National occupational exposure limits

Chemical Name	European Union	United Kingdom	France	Spain	Germany
2-Ethylhexan-1-ol 104-76-7					TWA: 10 ppm TWA: 54 mg/m³ Ceiling / Peak: 10 ppm Ceiling / Peak: 54 mg/m³ TWA: 20 ppm TWA: 110 mg/m³

Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
2-Ethylhexan-1-ol 104-76-7	Skin STEL 100 ppm STEL 540 mg/m³ TWA: 50 ppm TWA: 270 mg/m³	STEL: 20 ppm STEL: 110 mg/m³ TWA: 20 ppm TWA: 110 mg/m³	STEL: 320 mg/m³ TWA: 160 mg/m³		

Exposure controls

Engineering Controls Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/face protection Tight sealing safety goggles.

Hand Protection	Suitable chemical resistant gloves (EN 374) also with prolonged, direct contact (recommendation: protection index 6, corresponding > 480 minutes Permeability time (permeation) according to EN 374): e.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm).
Body Protection	Use suitable protective clothing and equipment if required, such as safety goggles certified to EN 166, gloves certified to EN 374, protective boots certified to EN 13832, and/or a water repellent woven coverall with 65% polyester and 35 % cotton.
Respiratory protection	Use only with adequate ventilation.
General Hygiene Considerations	When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Regular cleaning of equipment, work area and clothing is recommended.
Environmental exposure controls	Do not allow into any sewer, on the ground or into any body of water.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Property		Values	Method	Remarks
Appearance				
Physical state	:	liquid		
Color	:	Yellowish to brown		
Odor	:	characteristic, oily		
Odor threshold	:	No data available		
pH	:	4.5 – 6.5	CIPAC MT 75.3	1 % aqueous solution
Melting point/freezing point °C	:	----		Not Applicable
Boiling point/boiling range °C	:	No data available		
Flash point °C	:	101.5	EEC A.9	
Evaporation rate	:	----		No data available
Flammability (solid, gas)	:	Not applicable for liquids		
Upper/lower flammability or explosive limits	:	No data available		
Vapor pressure kPa	:	----		Not Applicable
Vapor density	:	No data available		
Relative density	:	1.15 - 1.25	OECD 109	20 °C
Solubility(ies) mg/l	:	----		Not Applicable
Partition Coefficient (n-octanol/water) Log Pow	:			See Section 12 for more information
Autoignition temperature °C	:	> 400	EEC A.15	
Decomposition temperature °C	:	No data available		
Kinematic viscosity mm2/s 40 °C	:	8.24	OECD 114	
Explosive properties	:	Not an explosive	EEC A.14	
Oxidizing properties	:	Not oxidizing	EEC A.21	

Other Information

Bulk density g/ml	:	----		Not Applicable
Surface tension mN/m	:	49.3	OECD 115	19.5°C

Section 10: STABILITY AND REACTIVITY

Reactivity

Not available.

Chemical stability

Stable under normal conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Heat, flames and sparks.

Incompatible Materials

No information available

Hazardous Decomposition Products

Nitrogen oxides (NOx).

Section 11: TOXICOLOGY INFORMATION

Information on toxicological effects

Acute toxicity

		Values	Species	Method	Remarks
Oral LD50 mg/kg	:	> 2000	Rat	OECD 423	
Dermal LD50 mg/kg	:	> 2000	Rat	OECD 402	
Inhalation LC50 mg/l/4h	:	> 6.0	Rat	OECD 403	
Skin corrosion/irritation	:	Non-irritating to the skin	Rabbit	OECD 404	
Serious eye damage/eye irritation	:	Irritating to eyes	Rabbit	OECD 405	
Respiratory/skin sensitization	:	Skin sensitizer	Guinea pig	OECD 406,	

Chronic toxicity

Germ cell mutagenicity
Chemical Name
Fluensulfone : Not classified

Carcinogenicity .
Chemical Name
Fluensulfone : Not Carcinogenic

Reproductive toxicity .
Chemical Name
Fluensulfone : Not toxic for the reproductive system

STOT - single exposure
Chemical Name
Fluensulfone : No data available

STOT - repeated exposure
Chemical Name
Fluensulfone : Not classified

Aspiration hazard
Chemical Name
Fluensulfone : No data available

Section 12: ECOLOGICAL INFORMATION

Toxicity

Aquatic toxicity

Acute toxicity		**Values**	**Species**	**Method**	**Remarks**
Fish 96-hour LC50 mg/l	:	5.6	Lepomis macrochirus	OECD 203	
Crustacea 48-hour EC50 mg/l	:	0.83	Daphnia magna	OECD 202	
Algae 72-hour EC50 mg/l	:	0.0152	P. subcapitata	OECD 201	
Other plants EC50 mg/l	:	----			No data available

Chronic aquatic toxicity		**Values**	**Species**	**Method**	**Remarks**
Fish NOEC mg/l	:	No data available			
Crustacea NOEC mg/l	:	No data available			
Algae NOEC mg/l	:	No data available			
Other plants NOEC mg/l	:	No data available			

Terrestrial Toxicity

Birds Oral LD50 mg/kg **Chemical Name**					
Fluensulfone	:	1506	Bobwhite quail	EPA-OPPTS 850.2100	

Bees Oral LD50 µg/bee **Chemical Name**					
Fluensulfone	:	> 197		OECD 213; OECD 214	

Persistence and degradability

Abiotic Degradation Water DT50 days **Chemical Name**		**Values**	**Method**	**Remarks**
Fluensulfone	:	----	OECD 111	Stable, 50 °C

Soil DT50 days **Chemical Name**				
Fluensulfone	:	8 - 17	EPA OPPTS 835.4100	20 °C

Biodegradation **Chemical Name**				
Fluensulfone	:	Not readily biodegradable	OECD 301 D	

Bioaccumulative potential

Partition Coefficient (n-octanol/water) Partition Coefficient (n-octanol/water) Log Pow **Chemical Name**		**Values**	**Method**	**Remarks**
Fluensulfone	:	1.96	OECD 117	

Bioconcentration factor (BCF) **Chemical Name**				
Fluensulfone	:	----		Low bioaccumulation potential

Mobility in soil

Adsorption/Desorption **Chemical Name**		**Values**	**Method**	**Remarks**
Fluensulfone	:	187	OECD 106	Mobile

Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB

Other adverse effects

No information available.

Section 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused products	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging	Improper disposal or reuse of this container may be dangerous and illegal.
Other Information	Waste codes should be assigned by the user based on the application for which the product was used.

Section 14: TRANSPORTATION INFORMATION

IMDG/IMO

UN/ID No *	3082
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluensulfone)
Hazard Class	9
Packing Group	III
Marine pollutant	Yes
Special precautions for user	

RID/ADR

UN/ID No *	3082
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluensulfone)
Hazard Class	9
Packing Group	III
Environmental hazard	Yes
Special precautions for user	

ICAO/IATA

UN/ID No *	3082
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluensulfone)
Hazard Class	9
Packing Group	III
Environmental hazard	Yes
Special precautions for user	
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not Applicable

* Note: UN3077 & UN3082 – These products may be transported as non-dangerous goods under the special provisions of IMDG Code 2.10.2.7; ADR SP375 and ICAO/IATA A197 when packed in single or inner packaging of up to 5L for liquids or 5 kg or less for solids.

Section 15: REGULATORY INFORMATION

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

Section 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3
H302 - Harmful if swallowed
H303 - May be harmful if swallowed
H304 - May be fatal if swallowed and enters airways
H315 - Causes skin irritation
H316 - Causes mild skin irritation
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H319 - Causes serious eye irritation
H332 - Harmful if inhaled
H335 - May cause respiratory irritation
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
H411 - Toxic to aquatic life with long lasting effects

Revision Note Changes made to the last version are labeled with this sign ***.

List of Acronyms
ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
CAS Number - Chemical Abstracts Service number
EC Number - EINECS and ELINCS Number
EINECS - European Inventory of Existing Commercial Substances
ELINCS - European List of notified Chemical Substances
IATA - International Air Transport Association
ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG - International Maritime Dangerous Goods
LC50 - Lethal Concentration to 50 % of a test population
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)
OECD - Organization for Economic Co-operation and Development
PBT - Persistent, Bioaccumulative and Toxic substance
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail
STOT - Specific Target Organ Toxicity
vPvB - Very Persistent and Very Bioaccumulative

Disclaimer
The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet