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SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : Eclipse-N
Product code : M77913

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

No additional information available

1.3. Details of the supplier of the safety data sheet

JR Simplot Company P.O. Box 70013 Boise, ID 83707 T 1-208-336-2110

1.4. Emergency telephone number

Emergency number : CHEMTREC 1-800-424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Serious eye damage/eye irritation, Category 1 H318 Reproductive toxicity, Category 2 H361

Full text of H statements : see section 16

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US)



GHS05



Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : H318 - Causes serious eye damage

H361 - Suspected of damaging fertility or the unborn child

Precautionary statements (GHS-US) : P201 - Obtain special instructions before use

P202 - Do not handle until all safety precautions have been read and understood P280 - Wear protective gloves, protective clothing, eye protection, face protection

P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing

P308+P313 - If exposed or concerned: Get medical attention

P310 - Immediately call a POISON CENTER

P405 - Store locked up

P501 - Dispose of contents/container to ... in accordance with Federal, state, and local

regulations

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

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Name	Product identifier	%	GHS-US classification
N-(n-butyl)-thiophosphonic triamide	(CAS No) 94317-64-3	15 - 55	Eye Irrit. 2A, H319 Skin Sens. 1B, H317 Repr. 2, H361 STOT SE 3, H335
1,2,3-Propanetriol	(CAS No) 56-81-5	5 - 49.5	Eye Irrit. 2B, H320
dimethyl sulfoxide	(CAS No) 67-68-5	20 - 40	Flam. Liq. 4, H227
benzaldehyde	(CAS No) 100-52-7	1 - 5	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302
Proprietary		0.1 - 5	Not classified

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical

advice (show the label where possible).

First-aid measures after inhalation : Allow breathing of fresh air. Allow the victim to rest.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed

by warm water rinse.

First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness

persist.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Reactivity : Stable at room temperature and pressure.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any

chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect

spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation

of vapour.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Keep container

closed when not in use.

Incompatible products : Strong bases. Strong acids.
Incompatible materials : Sources of ignition. Direct sunlight.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

N-(n-butyl)-thiophosphonic triamide (94317-64-3)

Not applicable

dimethyl sulfoxide (67-68-5)

Not applicable

1,2,3-Propanetriol (56-81-5)

Not applicable

benzaldehyde (100-52-7)

Not applicable

Proprietary

Not applicable

8.2. Exposure controls

Personal protective equipment : Avoid all unnecessary exposure.

Hand protection : Wear protective gloves.

Eye protection : Chemical goggles or safety glasses.

Respiratory protection : Wear appropriate mask.

Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : Liquid.

Colour : Slightly hazy to clear golden yellow

Odour : Ammonia-like odor Odour threshold : No data available

pH : 6 - 8

Melting point: No data availableFreezing point: No data availableBoiling point: No data available

Flash point : 87 °C

Relative evaporation rate (butylacetate=1) : No data available Flammability (solid, gas) : No data available Explosive limits : No data available Explosive properties : No data available Oxidising properties : No data available Vapour pressure : No data available Relative density : No data available

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Relative vapour density at 20 °C : No data available : 1.07 - 1.09 Density Solubility Soluble.

Water: Solubility in water of component(s) of the mixture :

dimethyl sulfoxide: 100 g/100ml
 1,2,3-Propanetriol: 100 g/100ml (25 °C, Complete)

benzaldehyde: 0.3 g/100ml

Log Pow : No data available Auto-ignition temperature No data available Decomposition temperature : No data available : No data available Viscosity Viscosity, kinematic No data available Viscosity, dynamic : No data available

Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable at room temperature and pressure.

Chemical stability

Product is stable at ambient temperature and pressure, under normal storage and handling conditions. Not established.

Possibility of hazardous reactions

Not established.

Conditions to avoid

Heat and sources of ignition. Extremely high or low temperatures. Direct sunlight.

10.5. Incompatible materials

Strong oxidizers. reducing agents. Acids. Strong acids. Strong bases.

Hazardous decomposition products

This product contains components which may decompose to release: methanethiol, formaldehyde, water, bis (mathylthio) methane, dimethyl disulfide, dimethyl sulfone, dimethyl sulfide, sulfur dioxide, oxides of carbon, nitrogen, sulfur and other compounds. fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity : Not classified

N-(n-butyl)-thiophosphonic triamide (94317-64-3)		
LD50 oral rat	> 2000 mg/kg	
LD50 dermal rat	> 2000 mg/kg	
dimethyl sulfoxide (67-68-5)		
LD50 oral rat	14500 mg/kg (Rat)	
ATE US (oral)	14500.000 mg/kg bodyweight	
1,2,3-Propanetriol (56-81-5)		
LD50 oral rat	27200 mg/kg (Rat; Experimental value)	
LC50 inhalation rat (mg/l)	> 2.75 mg/l/4h (Rat; Experimental value)	
ATE US (oral)	27200.000 mg/kg bodyweight	
benzaldehyde (100-52-7)		
LD50 oral rat	1300 mg/kg (Rat)	
LD50 dermal rat	> 1250 mg/kg (Rat)	
LD50 dermal rabbit	5000 mg/kg (Rabbit)	
ATE US (oral)	1300.000 mg/kg bodyweight	
ATE US (dermal)	5000.000 mg/kg bodyweight	

Skin corrosion/irritation : Not classified pH: 6 - 8

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Serious eye damage/irritation : Causes serious eye damage.

pH: 6 - 8

Respiratory or skin sensitisation : Not classified.

Germ cell mutagenicity : Not classified

Based on available data, the classification criteria are not met

Carcinogenicity : Not classified

Reproductive toxicity : Suspected of damaging fertility or the unborn child.

Based on available data, the classification criteria are not met

Specific target organ toxicity (single exposure) : Not classified.

Specific target organ toxicity (repeated

exposure)

: Not classified

Aspiration hazard : Not classified

Potential adverse human health effects and

symptoms

: Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

dimethyl sulfoxide (67-68-5)		
LC50 fish 1	32300 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)	
EC50 Daphnia 1	58200 mg/l (18 h; Daphnia magna)	
LC50 fish 2	33500 mg/l (96 h; Lepomis macrochirus)	
EC50 Daphnia 2	22300 mg/l (Daphnia pulex)	
TLM fish 1	33500 ppm (48 h; Lepomis macrochirus)	
Threshold limit algae 1	500 mg/l (48 h; Chlorophyta; Growth rate)	
1,2,3-Propanetriol (56-81-5)		
LC50 fish 1	54000 mg/l (96 h; Salmo gairdneri (Oncorhynchus mykiss); Lethal)	
LC50 other aquatic organisms 1	> 1000 mg/l (96 h)	
EC50 Daphnia 1	> 10000 mg/l (24 h; Daphnia magna; Locomotor effect)	
LC50 fish 2	> 1000 mg/l (96 h; Pisces)	
TLM fish 1	> 1000 ppm (96 h; Pisces)	
TLM other aquatic organisms 1	> 1000 ppm (96 h)	
Threshold limit other aquatic organisms 1	> 1000 mg/l (96 h)	
Threshold limit algae 1	> 10000 mg/l (8 days; Scenedesmus quadricauda; Turbid water)	
Threshold limit algae 2	2900 mg/l (192 h; Microcystis aeruginosa; Toxicity test)	
benzaldehyde (100-52-7)		
LC50 fish 1	1.1 mg/l (96 h; Lepomis macrochirus)	
EC50 Daphnia 1	50 mg/l (24 h; Daphnia magna)	
EC50 other aquatic organisms 1	534 mg/l (5 h; Bacteria; Activated sludge)	
LC50 fish 2	11.2 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)	
Threshold limit other aquatic organisms 1	132 mg/l (Pseudomonas putida)	
Threshold limit algae 1	100 mg/l (336 h; Chlorella sp.; Inhibitory)	
Threshold limit algae 2	34 mg/l (Scenedesmus quadricauda)	

12.2. Persistence and degradability

Eclipse-N		
Persistence and degradability	Not established.	
N-(n-butyl)-thiophosphonic triamide (94317-64-3)		
Persistence and degradability	Not established.	
dimethyl sulfoxide (67-68-5)		
Persistence and degradability	Not readily biodegradable in water. Photolysis in the air.	

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1,2,3-Propanetriol (56-81-5)	
Persistence and degradability	Readily biodegradable in water. Not established.
Biochemical oxygen demand (BOD)	0.87 g O₂/g substance
Chemical oxygen demand (COD)	1.16 g O₂/g substance
ThOD	1.217 g O₂/g substance
BOD (% of ThOD)	0.71 % ThOD
benzaldehyde (100-52-7)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil.
Biochemical oxygen demand (BOD)	1.62 g O₂/g substance
Chemical oxygen demand (COD)	1.98 g O₂/g substance
ThOD	2.42 g O₂/g substance
BOD (% of ThOD)	0.67 % ThOD
Proprietary	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

•		
Eclipse-N		
Bioaccumulative potential	Not established.	
N-(n-butyl)-thiophosphonic triamide (94317-64-3)		
Bioaccumulative potential	Not established.	
dimethyl sulfoxide (67-68-5)		
BCF fish 1	< 0.4 (Cyprinus carpio; Test duration: 6 weeks)	
Log Pow	-2.03	
Bioaccumulative potential	Bioaccumulation: not applicable.	
1,2,3-Propanetriol (56-81-5)		
Log Pow	-1.75 (Experimental value; Equivalent or similar to OECD 107)	
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.	
benzaldehyde (100-52-7)		
BCF other aquatic organisms 1	4.2 - 7.8 (Estimated value)	
Log Pow	1.48 (Experimental value)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).	
Proprietary		
Bioaccumulative potential	Not established.	

12.4. Mobility in soil

1,2,3-Propanetriol (56-81-5)	
Surface tension	0.0634 N/m (20 °C; 1000 g/l)
benzaldehyde (100-52-7)	

12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

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SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not regulated for transport

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory except for:

CAS No Proprietary

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

dimethyl sulfoxide (67-68-5)

U.S. - New Jersey - Right to Know Hazardous Substance List

1,2,3-Propanetriol (56-81-5)

U.S. - New Jersey - Right to Know Hazardous Substance List

benzaldehyde (100-52-7)

U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE

> COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending

Regulation (EC) No 1907/2006.

Other information : None.

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Full text of H-statements:

H227	Combustible liquid
H302	Harmful if swallowed
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H320	Causes eye irritation
H335	May cause respiratory irritation
H361	Suspected of damaging fertility or the unborn child

SDS US (GHS HazCom 2012)

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