# SAFETY DATA SHEET – DIAMOND

Issuing date: 2014/05/30

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier Trade name: DIAMOND

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

Use: Herbicide

1.3. Details of the supplier of the safety data sheet

PAN AMENITY LTD. 8 CROMWELL MEWS, STATION ROAD, ST IVES, PE27 5HJ
EMAIL: info@panamenity.co.uk TEL: +44 (0) 1480 467790

1.4. Emergency telephone number
00353 1 8379966

## 2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

| | | |
|---|---|---|
| EEC/99/45: | Xi | R43 - May cause sensitization by skin contact. |
| | N | R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| EG_1272/08: | EyeIrrit.2 | H319 - Causes serious eye irritation. |
| | SkinSens.1 | H317 - May cause an allergic skin reaction. |
| | AquaticAcute1 | H400 - Very toxic to aquatic life. |
| | AquaticChronic1 | H410 - Very toxic to aquatic life with long lasting effects. |

2.2. Label elements
according directive 1999/45/EG

Pictogram:



**Xi**



**N**

| | |
|---|---|
| R43 | -May cause sensitization by skin contact. |
| R50/53 | -Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| S2 | -Keep out of the reach of children. |
| S13 | -Keep away from food, drink and animal feedingstuffs. |
| S24/25 | -Avoid contact with skin and eyes. |
| S57 | -Use appropriate container to avoid environmental contamination. |
| S61 | -Avoid release to the environment. Refer to special instructions/ Safety data sheets. |

REGULATION (EC) No 1272/2008

Pictogram:







Signal word: Danger

| | |
|---|---|
| H317 | -May cause an allergic skin reaction. |
| H319 | -Causes serious eye irritation |
| H410 | -Very toxic to aquatic life with long lasting effects. |
| EUH401 | -To avoid risks to human health and the environment, comply with the instructions for use. |
| P101 | -If medical advice is needed, have product container or label at hand. |
| P102 | -Keep out of reach of children. |
| P270 | -Do not eat, drink or smoke when using this product. |
| P391 | -Collect spillage. |
| P261 | -Avoid breathing vapours or spray. |
| P501 | -Dispose of contents/ container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste. |

2.3. Other hazards

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

3. COMPOSITION/INFORMATION ON INGREDIENTS
Chemical nature: Aqueous solution of isopropylammonium and Dimethylammonium derivative salts 2,4-D 160 g/l, Glyphosate 240 g/l

3.2 Mixtures

Components:

| | | |
|---|---|---|
| <u>2,4-D DMA derivate</u> | | |
| CAS-No.: | 1263319-17-0 | |
| EINECS-No/ELINCS No.: | 934-143-3 | |
| REACH No.: | - | |
| Concentration: | 32.0% (w/w) | |
| <u>Glyphosate IPA salt</u> | | |
| <u>Classification</u> | | |
| EG_1272/08: | AcuteTox.4 | H302 – Harmful if swallowed. |
| | EyeDam.1 | H318 - Causes serious eye damage. |
| | SkinSens.1 | H317 – May cause an allergic skin reaction. |
| | AquaticChronic2 | H411 – Toxic to aquatic life with long lasting effects. |
| EEC/67/548: | Xn | R22 – Harmful if swallowed. |
| | Xi | R41 – Risk of serious damage to eyes. |
| | | R43 – May cause sensitization by skin contact. |
| | N | R51/53 – Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |

| | |
|---|---|
| CAS-No.: | 38641-94-0 |
| EINECS-No./ELINCS No.: | 254-056-8 |
| REACH No.: | - |
| Concentration: | 27.9% (w/w) |

| Classification | | |
|---|---|---|
| EG_1272/08: | AquaticChronic2 | H411 – Toxic to aquatic life with long lasting effects. |
| EEC/67/548: | N | R51/53 – Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |

## 4. FIRST AID MEASURES

### 4.1. Description of first aid measures

Eye contact:
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.
Skin contact:
Wash off immediately with soap and plenty of water.
Inhalation:
Move to fresh air.
Ingestion:
Rinse mouth. Do NOT induce vomiting. If swallowed, seek medical advice immediately and show this container or label.

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

Symptoms: No information available.

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

Treatment: Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

### 5.1. Extinguishing media

Suitable extinguishing media: Water spray, Dry powder, Sand, Foam, Carbon dioxide (CO2)
Extinguishing media which shall not be used for safety reasons: High volume water jet

### 5.2. Special hazards arising from the substance or mixture

Specific hazards during firefighting: In the event of fire (HCl, Cl2, NOx, CO) may be formed.

### 5.3. Advice for firefighters

Special protective equipment for fire-fighters: Use personal protective equipment. Wear self-contained breathing apparatus for firefighting if necessary.
Further Information: Standard procedure for chemical fires. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. (see Chapter 8)

### 6.2. Environmental precautions

Do not flush into surface water or sanitary sewer systems.

### 6.3. Methods and materials for containment and cleaning up

Methods for cleaning up: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder). Use mechanical handling equipment. Additional advice: Never return spills in original containers for re-use.

6.4. Reference to other sections
see Chapter 13

## 7. HANDLING AND STORAGE

7.1. Precautions for safe handling
Safe handling advice: Wear personal protective equipment. Keep out of the reach of children.
Advice on protection against fire and explosion: Normal measures for preventive fire protection.

7.2. Conditions for safe storage, including any incompatibilities
Requirements for storage areas and containers: Store at room temperature in the original container.
Advice on common storage: Keep away from food, drink and animal feeding stuffs.

7.3. Specific end uses
none

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters
Components with workplace control parameters
(EH40/2005 Workplace exposure limits)

Components: 2,4-D DMA derivate
CAS-No.: 1263319-17-0
National occupational exposure limits: -
Note: no classification available, not listed in EH40/2005

Components: Glyphosate IPA salt
CAS-No.: 38641-94-0
National occupational exposure limits: -
Note: no classification available, not listed in EH40/2005

8.2. Exposure controls

Personal protective equipment
Respiratory protection: No special protective equipment required.
Hand protection: Gloves
Eye protection: Safety glasses
Skin and body protection: protective suit
Hygiene measures: Remove and wash contaminated clothing and gloves, including the inside, before re-use.
Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.
Protective measures: Avoid contact with skin, eyes and clothing. Keep working clothes separately.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance
Physical state: liquid
Form: Soluble concentrate
Colour: yellow
Odour: odourless
Melting point/range: no data available
Boiling point/boiling range: ca.100 °C
Aqueous solution

Flash point: (closed cup)
Method: 92/69/EEC A9
does not flash
Ignition temperature: no data available
Upper explosion limit: no data available
Lower explosion limit: no data available
Vapour pressure: <1.9E-05 Pa
at 25 °C
(2,4-D)
1.3E-05 Pa
at 25 °C
Method: 92/69/EEC A4
(Glyphosate)
Density: 1.15 - 1.17 g/cm3
pH: 5 - 5.8 at ( 20 °C)
4.4 - 4.8 at 10 g/l ( 20 °C)
Partition coefficient: n-octanol/water: no data available Dissociation constant:
pKa= 2.64 (2,4-D)
pKa1= 2.34 (Glyphosate)
pKa2= 5.73 (Glyphosate)
pKa3= 10.2 (Glyphosate)
Viscosity, dynamic:
277 mPa.s at 20 °C Method: OECD 114
97 mPa.s at 40 °C Method: OECD 114
Surface tension: 23.6 mN/m at 20 °C

9.2. Other information
none

## 10. STABILITY AND REACTIVITY

10.1. Reactivity
no data available

10.2. Chemical stability
Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions
No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid
No decomposition if stored and applied as directed.

10.5. Incompatible materials to avoid
Strong bases

10.6. Hazardous decomposition products
No decomposition if stored and applied as directed.

## 11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

| | |
|---|---|
| Acute oral toxicity: | LD50 rat female<br>Dose: > 2,000 mg/kg |

| | |
|---|---|
| Acute dermal toxicity: | LD50 rat<br>Dose: > 2,000 mg/kg |
| Acute inhalation toxicity: | Remarks: not applicable |
| Skin irritation: | Rabbit Result: No skin irritation |
| Eye irritation: | Rabbit Result: Moderate eye irritation |
| Sensitisation: | Guinea-pig Result: Causes sensitization. |

## 12. ECOLOGICAL INFORMATION

### 12.1. Toxicity

| | |
|---|---|
| Toxicity to birds: | LD50 Colinus virginianus (Bobwhite Quail)<br>Dose: >500 mg/kg<br>Test substance: (2,4-D)<br><br>LD50 Colinus virginianus (Bobwhite Quail)<br>Dose: >2,000 mg/kg |
| Toxicity to bees: | LD50 (oral) Apis mellifera (Honey bee)<br>Dose (µg/Species): 106.6<br><br>LD50 (contact) Bee<br>Dose (µg/Species): 100 |
| Toxicity to fish: | LC50 Oncorhynchus mykiss (Rainbow trout)<br>Dose: 3.2 mg/l<br>Testing period: 96h |
| Toxicity to daphnia: | EC50 Daphnia magna (Water flea)<br>Dose: 2.5 mg/l<br>Testing period: 48h |
| Toxicity to algae: | Static test ErC50 Scenedesmus subspicatus<br>Dose: 1.28 mg/l<br>Exposure time: 72h<br><br>Lemna gibba (Duckweed)<br>Dose: 1.1 mg/l<br>Exposure time: 168h<br><br>EbC50 Scenedesmus subspicatus<br>Dose: 0.43 mg/l<br>Exposure time: 72h<br><br>NOEC Scenedesmus subspicatus<br>Dose: 0.1 mg/l<br><br>ErC50 Lemna minor (Duckweed)<br>Dose: 2.7 mg/l<br>Exposure time: 7d<br><br>EC50 Lemna minor (Duckweed)<br>Dose: 1.1 mg/l<br>Exposure time: 7d |

NOEC Lemna minor (Duckweed)
Dose: 0.1 mg/l
Exposure time: 7d

12.2. Persistence and degradability
Biodegradability: Result: Not readily biodegradable.
Test substance: (Glyphosate)

12.3. Persistence and degradability
Bioaccumulation: no data available

12.4. Mobility in soil
Koc = 884 - 60'000 (Glyphosate)
Koc= 5 - 212 (2,4-D)

12.5. Results of PBT and vPvB assessment
This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

12.6. Other adverse effects
none

13. DISPOSAL CONSIDERATIONS
According to European Directive 2000/532/EC as amended:
Waste Code: 02 01 08 (agrochemical waste containing dangerous substances)

13.1. Waste treatment methods
Product: Dispose of product and packaging in accordance with The Green Code. (The Code of Practice for the safe use of Pesticides on Farms and Holdings.) A MAFF Publication.
Contaminated packaging: Do not re-use empty containers. Dispose of as unused product.

14. TRANSPORT INFORMATION

14.1. UN number
UN3082

14.2. Proper shipping name
UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.*(2,4-D, Glyphosate)

14.3. Transport hazard class(es)
ADR/RID: Class: 9
IMDG: Class: 9
IATA-DGR: Class: 9

14.4. Packaging group
ADR/RID: III
IMDG: III
IATA-DGR: III

14.5. Environmental hazards IMDG
Marine Pollutant: MP

14.6. Special precautions for user
none

## 15. REGULATORY INFORMATION

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

Other regulations: The product is classified and labelled in accordance with EC directives or respective national laws.

### 15.2. Chemical Safety Assessment

none

## 16. OTHER INFORMATION

The information provided in this 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.

The information contained herein is based on the present state of our knowledge and does therefore not guarantee certain properties.