

## Section 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

**Product name:** DANADIM PROGRESS

**Product code:** \* 3621-04

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

**Use of substance / mixture:** Can be used as insecticide only.

### 1.3. Details of the supplier of the safety data sheet

**Company name:** Headland Agrochemicals

Rectors Lane

Pentre

Flintshire

CH5 2DH

United Kingdom

**Tel:** +44(0)1244 537370

**Fax:** +44(0)1244 532097

**Email:** [enquiry@headlandgroup.com](mailto:enquiry@headlandgroup.com)

### 1.4. Emergency telephone number

**Emergency tel:** +44(0)1244 537370

(office hours only)

## Section 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Classification under CHIP:** -: R10; Xn: R20/22; Sens.: R43; N: R51/53

**Most important adverse effects:** Flammable. Harmful by inhalation and if swallowed. May cause sensitisation by skin contact. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### 2.2. Label elements

**Label elements under CHIP:**

**Hazard symbols:** Harmful.

Dangerous for the environment.



**Risk phrases:** R10: Flammable.

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R20/22: Harmful by inhalation and if swallowed.

R43: May cause sensitisation by skin contact.

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Safety phrases:** S2: Keep out of the reach of children.

S13: Keep away from food, drink and animal feeding stuffs.

S23: Do not breathe spray/vapour.

S35: This material and its container must be disposed of in a safe way.

S36/37/39: Wear suitable protective clothing, gloves and eye / face protection.

S46: If swallowed, seek medical advice immediately and show this container or label.

S57: Use appropriate container to avoid environmental contamination.

**Precautionary phrases:** Do not contaminate water with the product or its container. Do not clean application equipment near surface water. Avoid contamination via drains from farmyards and roads.

Dangerous to bees. To protect bees and pollinating insects do not apply to crop plants when in flower. Do not use where bees are actively foraging. Do not apply when flowering weeds are present.

To protect non-target insects/arthropods respect an untreated buffer zone of 5 metres to non-crop land.

To avoid risks to man and the environment, comply with the instructions for use.

## 2.3. Other hazards

**PBT:** This product is not identified as a PBT substance.

## Section 3: Composition/information on ingredients

### 3.2. Mixtures

#### \* Hazardous ingredients:

##### CYCLOHEXANONE

EINECS	CAS	CHIP Classification	CLP Classification	Percent
203-631-1	108-94-1	-: R10; Xn: R20	Flam. Liq. 3: H226; Acute Tox. 4: H332	30-50%

##### DIMETHOATE (ISO)

200-480-3	60-51-5	Xn: R21/22	Acute Tox. 4: H312; Acute Tox. 4: H302	30-50%
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265-199-0	64742-95-6	Xn: R65; -: R10; Xi: R37; N: R51/53	Asp. Tox. 1: H304; Flam. Liq. 3: H226; STOT SE 3: H335; Aquatic Chronic 2: H411	5-10%
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## Section 4: First aid measures

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## 4.1. Description of first aid measures

- Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Consult a doctor if irritation develops.
- Eye contact:** Bathe the eye with running water for 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Transfer to hospital for specialist examination.
- Ingestion:** Get medical attention immediately. Wash out mouth with water. Give 1 or 2 glasses of water or milk to drink. Induce vomiting only if: more than a mouthful has been ingested, patient is fully conscious, medical aid is not readily available and time since ingestion is less than one hour. Risk of product entering the lungs on vomiting after ingestion. If vomiting does occur, rinse mouth and drink fluids again.
- Inhalation:** Remove casualty from exposure ensuring one's own safety whilst doing so. Light cases: Keep person under surveillance. Get medical attention immediately if symptoms develop. Serious cases: Get medical attention immediately or call for an ambulance. If breathing has stopped, immediately start artificial respiration and maintain until a physician takes charge of the exposed person.

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

- Skin contact:** There may be irritation and redness at the site of contact. May cause sensitisation.
- Eye contact:** There may be irritation and redness.
- Ingestion:** Nausea and stomach pain may occur. There may be vomiting.
- Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest.

**Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

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

**Immediate / special treatment:** Show this safety data sheet to the doctor in attendance. If any signs of cholinesterase inhibition are present (nausea, stomach pain, chest pain, sweating, muscle twitches, etc.), get medical attention immediately and explain the victim has been exposed to dimethoate, an organophosphorus insecticide. The antidote, atropine sulphate, should be available at the workplace. The product contains petroleum distillates which may pose an aspiration pneumonia hazard. Decontamination procedures such as whole body washing, gastric lavage and administration of activated charcoal are often required. If symptoms are present, administer 2-4 mg atropine sulphate, intravenously or intramuscularly, immediately. Repeat at 5 to 10 minute intervals until signs of atropinisation appear and maintain full atropinisation until all organophosphate is metabolised. Obidoxime chloride (Toxogonin) or pralidoxime chloride (2-PAM), may be used as an adjunct to atropine sulphate. Treatment with atropine sulphate is essential. In no case should oxime be used instead of atropine sulphate. At first sign of pulmonary oedema the patient should be given supplementary oxygen and treated symptomatically. Relapse can occur after initial improvement. Very close supervision of the patient is indicated for at least 48 hours, depending on the severity of poisoning.

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## Section 5: Fire-fighting measures

### 5.1. Extinguishing media

**Extinguishing media:** Dry chemical or carbon dioxide for small fires, water spray or foam for large fires. Use water spray to cool containers. Avoid heavy hose streams.

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

**Exposure hazards:** In combustion emits toxic fumes. The essential breakdown products are hydrogen sulphide, dimethyl sulphide, methyl mercaptan, sulphur dioxide, carbon monoxide, carbon dioxide, nitrogen oxides and phosphorus pentaoxide. Dimethoate can decompose rapidly when heated, which can result in explosion.

### 5.3. Advice for fire-fighters

**Advice for fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes. Contaminated fire extinguishing water should not be discharged into drains, if preventable.

## Section 6: Accidental release measures

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

**Personal precautions:** Refer to section 8 of SDS for personal protection details. If outside do not approach from downwind. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Turn leaking containers leak-side up to prevent the escape of liquid. Eliminate all sources of ignition. Avoid and reduce mist formation as much as possible. In the case of large spills, (10 tons or more) alert the appropriate authorities.

### 6.2. Environmental precautions

**Environmental precautions:** Do not discharge into drains or rivers. Contain the spillage using bunding. Wash waters must be prevented from entering surface water drains. Accidental release into water courses must be alerted to the appropriate regulatory body.

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

**Clean-up procedures:** Clean-up should be dealt with only by qualified personnel familiar with the specific substance. Do not use equipment in clean-up procedure which may produce sparks. Surface water drains within close vicinity of the spill should be covered. Spills on the floor or other impervious surface should be absorbed onto an absorptive material such as hydrated lime, universal binder, Fuller's earth or other absorbent clays. Collect the contaminated absorbent in suitable containers. Rinse the area with water and industrial detergent. Absorb wash liquid onto absorbent and transfer to suitable containers. Large spills which soak into the ground should be dug up and placed in suitable containers. Spills in water should be contained as much as possible by isolation of the contaminated water. The contaminated water must be collected and removed for treatment or disposal. Refer to section 13 of SDS for suitable method of disposal.

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## 6.4. Reference to other sections

**Reference to other sections:** Refer to section 8 of SDS. Refer to section 13 of SDS.

## Section 7: Handling and storage

### 7.1. Precautions for safe handling

**Handling requirements:** Formation of explosive vapour-air mixture is possible. Fire prevention measures should be taken. Keep away from sources of ignition and protect from fire, heat and static discharge. Avoid direct contact with the substance. Material should be handled by mechanical means as much as possible. Use non-sparking tools. Ensure there is sufficient ventilation of the area. Exhaust gases should be filtered or treated otherwise. Clean protective clothing and protective equipment with soap and water after use. Collect all wash water and dispose of as hazardous waste.

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage conditions:** Store at temperatures not exceeding 25°C. If the temperature of the liquid is below 38°C (10°C below its flash point) the fire and explosion hazard is considered minor. At higher temperatures the hazard gradually becomes more serious. Keep away from direct sunlight. Keep away from sources of ignition. Keep container tightly closed. The storage room should be constructed of incombustible material, closed, dry, ventilated and with impermeable floor. The room should only be used for storage of chemicals, and without access to unauthorised persons or children. Food, drink, feed and seed should not be present. A warning sign reading 'POISON' is recommended. A hand wash station should be available.

### 7.3. Specific end use(s)

**Specific end use(s):** This product is a registered pesticide, which may only be used for the applications it is registered for, in accordance with a label approved by the regulatory authorities.

## Section 8: Exposure controls/personal protection

### 8.1. Control parameters

**Hazardous ingredients:**

**CYCLOHEXANONE**

**Workplace exposure limits:**

**Respirable dust**

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	10 ppm	20 ppm	-	-

### 8.1. DNEL/PNEC Values

**DNEL / PNEC** No data available.

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## 8.2. Exposure controls

**Engineering measures:** When used in a closed system, personal protection equipment will not be required. The following is meant for other situations, when the use of a closed system is not possible, or when it is necessary to open the system. Consider the need to render equipment or piping system non-hazardous before opening.

**Respiratory protection:** In the event of a discharge of the material which produces a heavy vapour or mist, workers must put on officially approved respiratory protection equipment with a universal filter type including particle filter.

**Hand protection:** Wear chemical resistant gloves, such as barrier laminate, butyl rubber or nitrile rubber. The breakthrough times of these materials for the product are unknown, but it is expected they will give adequate protection. Replace gloves frequently and limit work done manually.

**Eye protection:** Safety glasses. Ensure eye bath is to hand.

**Skin protection:** Waterproof pants and apron of chemical resistant material or coveralls with PE coating will be sufficient for short time exposure. Coveralls must be discarded after use if contaminated. In cases of prolonged exposure, barrier laminate coveralls may be required.

**Environmental:** Refer to specific Member State legislation for requirements under Community environmental legislation.

## Section 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

**State:** Liquid

**Colour:** \* Blue

**Odour:** \* Aromatic

**Oxidising:** Non-oxidising (by EC criteria)

**Solubility in water:** Emulsifiable in water

**Viscosity:** \* 6.4 mPa.s at 20°C; 4.0 mPa.s at 40°C

**Melting point/range°C:** \* <0

**Flash point°C:** \* 48

**Part.coeff. n-octanol/water:** See section 12.3

**Autoflammability°C:** \* 310

**Relative density:** \* 1.06 g/ml at 20°C

**pH:** \* 3.14 (1% sol., 25°C)

### 9.2. Other information

**Other information:** No data available.

## Section 10: Stability and reactivity

### 10.1. Reactivity

**Reactivity:** Stable under recommended transport or storage conditions.

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## 10.2. Chemical stability

**Chemical stability:** Dimethoate may decompose rapidly when heated, which can result in explosion. It is recommended never to heat the product above 80°C. Direct local heating or such as electrical heating or by steam must be avoided. Decomposition is dependent on time as well as temperature due to self-accelerating exothermic and autocatalytic reactions, involving rearrangements and polymerisation, which releases volatile compounds such as dimethyl sulphide and methyl mercaptan.

## 10.3. Possibility of hazardous reactions

**Hazardous reactions:** Hazardous reactions will not occur under normal transport or storage conditions. Decomposition may occur on exposure to conditions or materials listed below.

## 10.4. Conditions to avoid

**Conditions to avoid:** Heat. Hot surfaces. Sources of ignition. Flames.

## 10.5. Incompatible materials

**Materials to avoid:** Strong bases. Strong oxidising agents. Can corrode metals (does not meet the criteria for classification).

## 10.6. Hazardous decomposition products

**Haz. decomp. products:** In combustion emits toxic fumes. See subsection 5.2

## Section 11: Toxicological information

### 11.1. Information on toxicological effects

#### Toxicity values:

Route	Species	Test	Value	Units
ORAL	RAT	LD50	~550	mg/kg
DERMAL	RAT	LD50	>2000	mg/kg
VAPOURS	RAT	4H LC50	3	mg/l

#### Hazardous ingredients:

##### CYCLOHEXANONE

ORL	MUS	LD50	1400	mg/kg
ORL	RAT	LD50	1620	µl/kg
SCU	RAT	LD50	2170	mg/kg

##### DIMETHOATE (ISO)

ORL	MUS	LD50	158	mg/kg
ORL	RAT	LD50	215	mg/kg

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SKN	RAT	LD50	353	mg/kg
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ORL	RAT	LD50	8400	mg/kg
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### Relevant effects for mixture:

Effect	Route	Basis
Acute toxicity (harmful)	INH ING	Hazardous: calculated
Sensitisation	DRM	Hazardous: calculated

### Symptoms / routes of exposure

**Skin contact:** There may be irritation and redness at the site of contact. May cause sensitisation.

**Eye contact:** There may be irritation and redness.

**Ingestion:** Nausea and stomach pain may occur. There may be vomiting.

**Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest.

**Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

**Other information:** Symptoms of cholinesterase inhibition: nausea, headache, vomiting, cramps, weakness, blurred vision, pin-point pupils, tightness in chest, laboured breathing, nervousness, sweating, watering eyes, drooling/frothing of mouth and nose, muscle spasms, coma.

## Section 12: Ecological information

### 12.1. Toxicity

#### \* Ecotoxicity values:

Species	Test	Value	Units
BLUEGILL SUNFISH ( <i>Lepomis macrochirus</i> )	96H LC50	>100	mg/l
DAPHNIDS ( <i>Daphnia magna</i> )	48H EC50	8.9	mg/l
ALGAE ( <i>Pseudokirchneriella subcapit</i> )	72H IC50	246	mg/l
HONEYBEES ( <i>Apis mellifera</i> )	48H LC50 oral	0.29	µg/bee
HONEYBEES ( <i>Apis mellifera</i> )	48H LC50 contact	0.37	µg/bee

### 12.2. Persistence and degradability

**Persistence and degradability:** \* Dimethoate is biodegradable. It undergoes degradation in the environment and in waste water treatment plants. No adverse effects are found at concentrations up to 100 mg/l in waste water treatment plants. Degradation occurs both aerobically and anaerobically, biologically as well as abiotically. Dimethoate degrades rapidly in aerobic soil and water, with primary half-lives of a few days. pH has a major influence, degradation will increase at higher pH. Degradation products are not considered harmful to soil or aquatic organisms and are mineralised relatively rapidly. Cyclohexanone is readily biodegradable. Solvent naphtha is not readily biodegradable. However, it is expected to be degraded in the environment at a moderate rate.

[cont...]

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## 12.3. Bioaccumulative potential

**Bioaccumulative potential:** \* Dimethoate (Log Kow=0.704) does not bioaccumulate; it is rapidly metabolised and excreted. Cyclohexanone (Log Kow=0.86) is not expected to bioaccumulate. Solvent naphtha has a moderate potential to bioaccumulate if continuous exposure is maintained. Most components can be metabolised by many organisms. BCFs of some of the main components are 300 - 400 by model calculation.

## 12.4. Mobility in soil

**Mobility:** \* Dimethoate has a potentially high mobility in soil, but it is relatively unstable. Degradation products are not mobile in soil. Cyclohexanone has a high mobility in the environment. It will readily evaporate. Solvent naphtha is not mobile in the environment, but it is highly volatile and will rapidly evaporate to the air if released into water or on the surface of soil.

## 12.5. Results of PBT and vPvB assessment

**PBT identification:** This product is not identified as a PBT substance.

## 12.6. Other adverse effects

**Other adverse effects:** \* Toxic to aquatic organisms. Dangerous to bees.

## Section 13: Disposal considerations

### 13.1. Waste treatment methods

**Disposal operations:** Waste that cannot be reused or chemically reprocessed can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Dimethoate is rapidly hydrolysed at pH >8.0. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

**Disposal of packaging:** Triple rinse (or equivalent) and offer for recycling or reconditioning. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials. Alternatively, packaging can be delivered to a licensed service for disposal of hazardous waste.

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

## Section 14: Transport information

### 14.1. UN number

**UN number:** UN1993

### 14.2. UN proper shipping name

**Shipping name:** FLAMMABLE LIQUID, N.O.S.  
(CYCLOHEXANONE; DIMETHOATE (ISO); ALKYL(C3-C4)BENZENES)

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## 14.3. Transport hazard class(es)

Transport class: 3

## 14.4. Packing group

Packing group: III

## 14.5. Environmental hazards

Environmentally hazardous: Yes

Marine pollutant: Yes

## 14.6. Special precautions for user

Special precautions: Do not discharge to the environment.

Tunnel code: D/E

Transport category: 3

## 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Transport in bulk: The product is not transported in bulk tankers.

## Section 15: Regulatory information

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

**Specific regulations:** Sevesco category in Annex II to Dir. 82/501/EEC: flammable. Sevesco category in Annex I, part 2, to Dir.96/82/EC: dangerous for the environment. Workers under the age of 18 are not permitted to work with the product. All ingredients in this product are covered by EU chemical legislation. Product Registration Number: MAPP 15890.

### 15.2. Chemical Safety Assessment

**Chemical safety assessment:** A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

## Section 16: Other information

### Other information

**Other information:** This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

\* indicates text in the SDS which has changed since the last revision.

**Phrases used in s.2 and 3:** H226: Flammable liquid and vapour.

H302: Harmful if swallowed.

H304: May be fatal if swallowed and enters airways.

H312: Harmful in contact with skin.

H332: Harmful if inhaled.

H335: May cause respiratory irritation.

H411: Toxic to aquatic life with long lasting effects.

R10: Flammable.

R20/22: Harmful by inhalation and if swallowed.

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R20: Harmful by inhalation.

R21/22: Harmful in contact with skin and if swallowed.

R37: Irritating to respiratory system.

R43: May cause sensitisation by skin contact.

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R65: Harmful: may cause lung damage if swallowed.

**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.