

MATERIAL SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Dimanco 9+60

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

Relevant identified uses: crop protection product, fungicide

1.3. Details of the supplier of the safety data sheet

Crownbridge Management L.P Suite 260,2323 - 32 Avenue N.8., Calgary, Alberta T2E623, Canada E-mail address: info@crownbridgetrading.com Website: www.crownbridgetrading.com

1.4. Emergency telephone number

International emergency number: 8004249300

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

Eye Dam./Irrit. 2 Skin Sens. 1

Repr. 2 (unborn child) Aquatic Acute 1 Aquatic Chronic 1 STOT SE (Respiratory system) 3

H317, H319, H335, H361d, H400, H410, EUH401

For the classifications not written out in full in this section the full text can be found in section 16.



2.2. Label elements



Signal Word: Warning

Hazard Statement: H317 H319 H335 H361d H400 H410 EUH401	May cause an allergic skin reaction. Causes serious eye irritation. May cause respiratory irritation. Suspected of damaging the unborn child. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects. To avoid risks to human health and the environment, comply with the instructions for use.	
Precautionary Statement:		
P101	If medical advice is needed, have product container or label at hand.	
P102 P103	Keep out of reach of children. Read label before use.	
F 103	Neau label belole use.	
Precautionary Statements (Prevention):		
P201	Obtain special instructions before use.	
P202	Do not handle until all safety precautions have been read and understood.	
P261	Avoid breathing dust.	
P264	Wash contaminated body parts thoroughly after handling.	
P272 P280	Contaminated work clothing should not be allowed out of the workplace.	
F20U	Wear protective gloves/clothing.	

Precautionary Statements (Response):



P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove
	contact lenses, if present and easy to do. Continue rinsing.
P303 + P352	IF ON SKIN (or hair): Wash with plenty of soap and water.
P308 + P311	IF exposed or concerned: Call a POISON CENTER or doctor/physician.
P391	Collect spillage.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P337 + P311	If eye irritation persists: Call a POISON CENTER or doctor/physician.
1 357 11 511	

Precautionary Statements (Storage): P405 Store locked up.

Precautionary Statements (Disposal):

P501

Dispose of contents/container to a licensed hazardous waste disposal contractor or collection site except for triple rinsed empty containers which can be disposed of as non-hazardous waste.

Hazard determining component(s) for labelling: mancozeb (ISO), dimethomorph (ISO); 4-(3-(4-chlorophenyl)-3-(3,4-dimethoxyphenyl)acryloyl)morpholine, Sodium dodecyl sulphate

2.3. Other hazards

See section 12 - Results of PBT and vPvB assessment.

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

SECTION 3: Composition/Information on Ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Chemical nature

crop protection product, fungicide, wettable powde mancozeb (ISO)



Content (W/W): 66.7 % CAS Number: 8018-01-7 Skin Sens. 1 Repr. 2 (unborn child) Aquatic Acute 1 H317, H361d, H400

dimethomorph (ISO); 4-(3-(4-chlorophenyl)-3-(3,4-dimethoxyphenyl)acryloyl)morpholine Content (W/W): 7.5 % Aquatic Chronic 2 CAS Number: 110488-70-5 H411 EC-Number: 404-200-2 INDEX-Number: 613-102-00-0

Sodium dodecyl sulphate Content (W/W): < 2 % CAS Number: 151-21-3 EC-Number: 205-788-1 REACH registration number: 01-2119489461-32

Flam. Sol. 2 Acute Tox. 4 (Inhalation - dust) Acute Tox. 4 (oral) Skin Corr./Irrit. 2 Eye Dam./Irrit. 1 STOT SE 3 (irr. to respiratory syst.) Aquatic Chronic 3 H228, H318, H315, H335, H302 + H332, H412

Specific concentration limit: Eye Dam./Irrit. 2: 10 - < 20 % Eye Dam./Irrit. 1: >= 20 %

Kaolin

Content (W/W): < 10 % CAS Number: 1332-58-7 EC-Number: 310-194-1

For the classifications not written out in full in this section, including the hazard classes and the hazard statements, the full text is listed in section 16.

SECTION 4: First-Aid Measures

4.1. Description of first aid measures

Remove contaminated clothing.

If inhaled: Keep patient calm, remove to fresh air, seek medical attention.

On skin contact: Wash thoroughly with soap and water.



On contact with eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

On ingestion:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

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

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., (Further) symptoms and / or effects are not known so far

4.3. Indication of any immediate medical attention and special treatment needed Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing media

Suitable extinguishing media: dry powder, foam, water spray

Unsuitable extinguishing media for safety reasons: carbon dioxide

5.2. Special hazards arising from the substance or mixture

carbon monoxide, Hydrogen sulphide, carbon disulphide, hydrogen chloride, Carbon dioxide, nitrogen oxides, sulfur oxides, organochloric compounds The substances/groups of substances mentioned can be released in case of fire.

5.3. Advice for fire-fighters

Special protective equipment: Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:

In case of fire and/or explosion do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

SECTION 6: Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures Use personal protective clothing. Avoid contact with the skin, eyes and clothing. Avoid dust formation.

6.2. Environmental precautions



Do not allow contamination of public drains or surface or ground waters. Inform local water plc if spillage enters drains and the Environmental Protection Agency if it enters surface or ground waters. Keep people and animals away.

6.3. Methods and material for containment and cleaning up

For small amounts: Contain with dust binding material and dispose of. For large amounts: Sweep/shovel up.

Dispose of absorbed material in accordance with regulations. Collect waste in suitable containers, which can be labeled and sealed. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations. Avoid raising dust. Wear suitable protective equipment.

6.4. Reference to other sections

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

SECTION 7: Handling and Storage

7.1. Precautions for safe handling

No special measures necessary if stored and handled correctly. Ensure thorough ventilation of stores and work areas. When using do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift.

Protection against fire and explosion:

Avoid dust formation. Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy. Dust can form an explosive mixture with air.

7.2. Conditions for safe storage, including any incompatibilities

Segregate from foods and animal feeds. Further information on storage conditions: Protect against moisture. Keep away from heat. Protect from direct sunlight.

7.3. Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

SECTION 8: Exposure Controls/Personal Protection

8.1. Control parameters

Components with occupational exposure limits

1332-58-7: Kaolin

TWA value 2.0 mg/m3 (OEL (IE)), Respirable dust



8018-01-7: mancozeb (ISO) TWA value 0.2 mg/m3 (OEL (IE)) Measured as: manganese (Mn)

Refer to the current schedule of occupational exposure standards published by the Irish HSA. For normal use and handling refer to the product label/leaflet. In all other cases the following apply.

8.2. Exposure controls

Personal protective equipment

Respiratory protection:

Suitable respiratory protection for lower concentrations or short-term effect: Particle filter with medium efficiency for solid and liquid particles (e.g. EN 143 or 149, Type P2 or FFP2)

Hand protection:

Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) etc.

Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures

The statements on personal protective equipment in the instructions for use apply when handling crop-protection agents in final-consumer packing. Wearing of closed work clothing is recommended. Store work clothing separately. Keep away from food, drink and animal feeding stuffs.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Form:	wettable powder
Colour:	beige
Odour:	slight odour
Odour threshold:	-
	Not determined due to potential
	health hazard by inhalation.
pH value:	approx. 6 - 8
	(1 %(m), 20 °C)
	(as suspension)
Melting point:	approx. 192 °C
	The data given are those of the active ingredient.



Boiling point:			
Elach point:	The product is a non-vola	tile solid.	
Flash point:	not applicable, the produc	t is a solid	
Evaporation rate:			
Flammability: Lower explosion limit:	not applicable not highly flammable		
Lower explosion limit.	As a result of our experier	nce with this	
	product and our knowledg composition we do not ex hazard as long as the pro appropriately and in accor the intended use.	ge of its pect any duct is used	
Upper explosion limit:	As a result of our experier	aco with this	
	product and our knowledg composition we do not ex hazard as long as the pro appropriately and in accord	ge of its pect any duct is used	
	the intended use.		
Vapour pressure:	The product has not been	tested	
Density:	approx. 1.92 g/cm3 (20 °C)	lesieu.	(OECD Guideline 109)
Relative vapour density (a			
	not applicable		
Solubility in water:	dispersible	nhan(l) 2 (2)	1
dimethoxyphenyl)acryloy	norph (ISO); 4-(3-(4-chloro _l d)morpholine	onenyi)-3-(3,4	+-
	octanol/water (log Kow): (20 °C)	2.63 - 2.73	
Information on: mancoze zinc salt	b (ISO); manganese ethyle	enebis(dithioc	arbamate) (polymeric) complex with
Partitioning coefficient n-	octanol/water (log Kow): (20 °C)	0.26	
Self ignition:	Temperature: 160 °C		(Method: Directive 92/69/EEC, A.16)
Thermal decomposition:	Not a substance liable to s regulations, class 4.1.	self-decompo	sition according to UN transport
Viscosity, dynamic:			
Viscosity, kinematic:	not applicable, the produc	ct is a solid	
viocosity, Milomatic.	not applicable		
Explosion hazard:	not explosive		
Fire promoting properties	: not fire-propagating		



9.2. Other information

Self heating ability:It is not a substance capable of
spontaneous heating according to
UN transport regulations class 4.2.SADT:Not a substance liable to self-decomposition according to UN transport
regulations, class 4.1.

Other Information: If necessary, information on other physical and chemical parameters is indicated in this section.

SECTION 10: Stability and Reactivity

10.1. Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

10.2. Chemical stability

The product is stable if stored and handled as prescribed/indicated.

10.3. Possibility of hazardous reactions

No hazardous reactions if stored and handled as prescribed/indicated.

10.4. Conditions to avoid

See MSDS section 7 - Handling and storage.

10.5. Incompatible materials

Substances to avoid: strong bases, strong acids, strong oxidizing agents

10.6. Hazardous decomposition products

Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

SECTION 11: Toxicological Information

11.1. Information on toxicological effects

Acute toxicity

Assessment of acute toxicity: Of low toxicity after single ingestion. Virtually nontoxic after a single skin contact. Virtually nontoxic by inhalation.

Experimental/calculated data: LD50 rat (oral): > 2,000 mg/kg (OECD Guideline 401)

(by inhalation):Not inhalable due to the physico-chemical properties of the product.



LD50 rat (dermal): > 2,000 mg/kg (OECD Guideline 402) No mortality was observed.

Irritation

Assessment of irritating effects: Not irritating to the skin. Eye contact causes irritation.

Experimental/calculated data: Skin corrosion/irritation rabbit: non-irritant (OECD Guideline 404)

Serious eye damage/irritation rabbit: Irritant. (OECD Guideline 405)

Respiratory/Skin sensitization

Assessment of sensitization: Sensitization after skin contact possible.

Experimental/calculated data: modified Buehler test guinea pig: Caused skin sensitization in animal studies. (OECD Guideline 406)

Germ cell mutagenicity

Assessment of mutagenicity: Mutagenicity tests revealed no genotoxic potential. The product has not been tested. The statement has been derived from the properties of the individual components.

Carcinogenicity

Assessment of carcinogenicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: mancozeb (ISO); manganese ethylenebis(dithiocarbamate) (polymeric) complex with zinc salt Assessment of carcinogenicity: In long-term studies in rats the substance induced thyroid tumors.

Reproductive toxicity

Assessment of reproduction toxicity: The results of animal studies gave no indication of a fertility impairing effect. The product has not been tested. The statement has been derived from the properties of the individual components.

Developmental toxicity

Assessment of teratogenicity:



Information on: mancozeb (ISO); manganese ethylenebis(dithiocarbamate) (polymeric) complex with zinc salt Assessment of teratogenicity: Possible risk of harm to the unborn child.

Specific target organ toxicity (single exposure)

Assessment of STOT single: The available information is not sufficient for the evaluation of specific target organ toxicity.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

No data available.

Aspiration hazard

No aspiration hazard expected. The product has not been tested. The statement has been derived from the properties of the individual components.

Other relevant toxicity information

Misuse can be harmful to health.

SECTION 12: Ecological Information

12.1. Toxicity

Assessment of aquatic toxicity: Very toxic to aquatic life with long lasting effects.

Toxicity to fish: LC50 (96 h) 0.24 mg/l, Oncorhynchus mykiss (OECD Guideline 203, static)

Aquatic invertebrates: EC50 (48 h) 0.56 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)

Aquatic plants: EC50 (72 h) 5.22 mg/l (growth rate), Pseudokirchneriella subcapitata (OECD Guideline 201, static)

12.2. Persistence and degradability

Assessment biodegradation and elimination (H2O):



Information on: dimethomorph (ISO); 4-(3-(4-chlorophenyl)-3-(3,4dimethoxyphenyl)acryloyl)morpholine Assessment biodegradation and elimination (H2O): Not readily biodegradable (by OECD criteria).

Information on: mancozeb (ISO); manganese ethylenebis(dithiocarbamate) (polymeric) complex with zinc salt Assessment biodegradation and elimination (H2O): According to OECD criteria the product is not readily biodegradable but inherently biodegradable.

12.3. Bioaccumulative potential

Assessment bioaccumulation potential:

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: mancozeb (ISO); manganese ethylenebis(dithiocarbamate) (polymeric) complex with zinc salt

Assessment bioaccumulation potential:

Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

Information on: dimethomorph (ISO); 4-(3-(4-chlorophenyl)-3-(3,4dimethoxyphenyl)acryloyl)morpholine

12.4. Mobility in soil

Assessment transport between environmental compartments: Adsorption in soil: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: dimethomorph (ISO); 4-(3-(4-chlorophenyl)-3-(3,4dimethoxyphenyl)acryloyl)morpholine

Assessment transport between environmental compartments:

Volatility: The substance will not evaporate into the atmosphere from the water surface.

Adsorption in soil: Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.

Information on: mancozeb (ISO); manganese ethylenebis(dithiocarbamate) (polymeric) complex with zinc salt

Assessment transport between environmental compartments:

Adsorption in soil: Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.



12.5. Results of PBT and vPvB assessment

The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria.

12.6. Other adverse effects

The product does not contain substances that are listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

12.7. Additional information

Other ecotoxicological advice: Do not discharge product into the environment without control.

SECTION 13: Disposal Considerations

13.1. Waste treatment methods

Must be sent to a suitable incineration plant, observing local regulations.

Contaminated packaging: Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

SECTION 14: Transport Information

Land transport

ADR

UN number UN proper shipping name: Transport hazard class(es): Packing group:	UN3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains MANCOZEB, DIMETHOMORPH) 9, EHSM III
Environmental hazards: Special precautions for	yes
user:	None known
RID	
UN number UN proper shipping name:	UN3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains MANCOZEB, DIMETHOMORPH)
Transport hazard class(es):	9, EHSM



Packing group:IIIEnvironmental hazards:yesSpecial precautions for
user:None known

Inland waterway transport ADN

UN number	UN3077
UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains MANCOZEB, DIMETHOMORPH)
Transport hazard class(es):	9, EHSM
Packing group:	III
Environmental hazards:	yes
Special precautions for user:	None known

<u>Transport in inland waterway vessel</u> Not evaluated

Sea transport

IMDG

UN number: UN proper shipping name:	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains MANCOZEB, DIMETHOMORPH)
Transport hazard class(es): Packing group:	9, EHSM III
Environmental hazards:	yes Marine pollutant: YES
Special precautions for user:	None known

Air transport

IATA/ICAO

UN number: UN proper shipping name:	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains MANCOZEB, DIMETHOMORPH)
Transport hazard class(es): Packing group: Environmental hazards: Special precautions for user:	9, EHSM III yes None known



14.1. UN number

See corresponding entries for "UN number" for the respective regulations in the tables above.

14.2. UN proper shipping name

See corresponding entries for "UN proper shipping name" for the respective regulations in the tables above.

14.3. Transport hazard class(es)

See corresponding entries for "Transport hazard class(es)" for the respective regulations in the tables above.

14.4. Packing group

See corresponding entries for "Packing group" for the respective regulations in the tables above.

14.5. Environmental hazards

See corresponding entries for "Environmental hazards" for the respective regulations in the tables above.

14.6. Special precautions for user

See corresponding entries for "Special precautions for user" for the respective regulations in the tables above.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Regulation:	Not evaluated
Shipment approved:	Not evaluated
Pollution name:	Not evaluated
Pollution category:	Not evaluated
Ship Type:	Not evaluated

SECTION 15: Regulatory Information

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

For the user of this plant-protective product applies: 'To avoid risks to man and the environment, comply with the instructions for use.' (Directive 1999/45/EC, Article 10, No. 1.2)

This product may be subject to the Seveso III Directive and amendments if specific threshold tonnages are exceeded.

For further medical advice Doctors should contact the National Poison Information Centre at Beaumont Hospital, Dublin.

15.2. Chemical Safety Assessment

Advice on product handling can be found in sections 7 and 8 of this safety data sheet.



SECTION 16: Other Information

For proper and safe use of this product, please refer to the approval conditions laid down on the product label.

Full text of the classific in section 2 or 3:	cations, including the hazard classes and the hazard statements, if mentioned
Eye Dam./Irrit.	Serious eye damage/eye irritation
Skin Sens.	Skin sensitization
Repr.	Reproductive toxicity
Aquatic Acute	Hazardous to the aquatic environment - acute
Aquatic Chronic	Hazardous to the aquatic environment - chronic
STOT SE	Specific target organ toxicity — single exposure
Flam. Sol.	Flammable solids
Acute Tox.	Acute toxicity
Skin Corr./Irrit.	Skin corrosion/irritation
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H361d	Suspected of damaging the unborn child.
H400	Very toxic to aquatic life.
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.
H411	Toxic to aquatic life with long lasting effects.
H228	Flammable solid.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H302 + H332	Harmful if swallowed or if inhaled
H412	Harmful to aquatic life with long lasting effects.