	S	AFETY	DATA SHEET		Scotts.
Product Name:		DAC	ONIL TURF	Refer	ence No: 006
Version No.: 2	Revisior	n Date:	January 2004	Date of Introduction:	Pre. 1995
1. IDENTIFICATION C	F SUBSTAN	CE / PRE	PARATION AND C	OMPANY	
Product Name		DACONIL	TURE		
Common name of active i		CHLOROT	-		
Intended use	3		ly as a Horticultural Fun	nicide	
Company Identification			Professional	giordo.	
eenipuity luonaiteution			s Company (UK) Ltd		
		Paper Mill			
		Bramford			
		lpswich		Telephone +44 (0) 1473 830 492
		Suffolk IP	8 4BZ		,
Emergency Telephone		01865 407	333 (24hr)		
2. COMPOSITION / IN JBA No: 030586	FORMATION	ON ING	REDIENTS		
NPK: Not applicable	9				
Chemical Characterisation	า				
Chemical name	CAS-	No	EINECS/ELINCS	Classification	Concentration
Chlorothalonil	001897		217-588-1	Carc Cat 3. Xn: R40, N: R50, R53.	40.2%w/w
Propane-1,2-diol	57-55	5-6	200-338-0	-	<10%w/w
3. HAZARDS IDENTIF					
Physicochemical:	Not classif	ied.			
Health: General Eye contac Skin conta Inhalation	t Irritating to ct May cause	Limited evidence of a carcinogenic effect. Irritating to eyes. May cause sensitisation by skin contact. A mild irritant to skin. Harmful by inhalation. Irritating to respiratory system.			
Environmental: DANGEROUS FOR THE ENVIRONMENT			THE ENVIRONMENT. organisms, may cause lo	ong-term adverse effects in the	aquatic environment.

4. FIRST AID MEASURES		
General information	Chlorothalonil may produce temporary irritant reactions (redness of eyes, mild bronchial irritation, redness or rash on exposed skin). Symptomatic treatment and supportive therapy as indicated.	
Inhalation	Remove patient from exposure, keep warm and at rest. Obtain medical attention as a precaution.	
Skin contact	Take off immediately all contaminated clothing. Wash skin immediately with water, followed by soap and water. Such action is necessary to minimise contact with skin. Contaminated clothing should be laundered before re-use. Seek medical attention if irritation persists.	
Eye contact	Immediately irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 15 minutes. Obtain immediate medical attention.	
Ingestion	If swallowed, seek medical advice immediately, and show the container, label or this data sheet, if possible. Do not induce vomiting.	

5. FIRE FIGHTING MEASURES

General hazard	Non-combustible.
Extinguishing media	Foam, carbon dioxide, dry powder or water fog.
Extinguishing media to avoid	Strong water jet.
Special exposure hazards	Combustion or thermal decomposition will evolve toxic and irritant vapours.
Protective equipment	Self-contained breathing apparatus and suitable protective clothing.
Further information	Keep fire exposed containers cool by spraying with water. Contain fire water run-off with, for example, temporary earth barriers.

6. ACCIDENTAL RELEASE MEASURES Methods for cleaning up Ensure suitable personal protection during removal of spillages. (see also section 8). This means wearing eye protection, chemically resistant gloves, boots and coveralls. Absorb spillages onto sand, earth or any suitable absorbent material. Transfer into a labelled container for disposal (see also section 13). Wash the spillage area with water. Washings must be prevented from entering surface water drains. Environmental considerations Dangerous for the environment. Spillages or uncontrolled discharge into water courses must be alerted to the appropriate regulatory body.

7. HANDLING & STORAGE

Advice on safe handling	 Read the label before use. Wear suitable protective clothing (coveralls), suitable protective gloves and face protection (faceshield) when handling the concentrate. Wear suitable protective clothing (coveralls) when applying by vehicle mounted/drawn equipment. Wear suitable protective clothing (coveralls) suitable protective gloves and rubber boots when using a pedestrian controlled sprayer. Wear suitable protective clothing (coveralls) and suitable protective gloves when handling contaminated equipment surfaces. When using do not eat, drink or smoke. Wash splashes from skin or eyes immediately. Do not breathe spray. This product must only be applied by pedestrian controlled sprayer or vehicle mounted/drawn equipment. Wash hands and exposed skin before eating, drinking or smoking and after work.
Storage conditions	Keep away from food, drink and animal feeding stuffs. Keep out of reach of children. Keep in original container, tightly closed, in a safe place. Protect from frost.
Shelf life	Physically and chemically stable for at least 2 years when stored in the original unopened sales container at ambient temperatures.

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure controls	Chlorothalonil Propane-1,2-diol Propane-1,2-diol	LTEL 8hr TWA LTEL 8hr TWA 150ppm LTEL 8hr TWA	0.1mg/m ³ 474mg/m ³ 10mg/m3	Supplier data Vapour & particulates (EH40/2002) Particulates (EH40/2002)	
Engineering controls	Ensure adequate	ventilation of working area.			
Personal protection	Avoid inhalation o Personal protectiv In case of accide	Observe normal standards for handling chemicals. Avoid inhalation of dust. Wash hands before breaks and after use. Personal protective equipment is not normally required – gloves can be worn for personal hygiene. In case of accidental spillage of bulk product, wear personal protective equipment appropriate to the task (see below)			
Eye protection	Faceshield, BSEN	I1663F (minimum)			
Skin protection	Nitrile gloves				
Respiratory protection	Respirator EN149	Respirator EN149:2001FFP3.			
Other protection	Protective overall	and rubber boots.			

9. PHYSICAL & CHEMICAL PROPERTIES

Physical form	Liquid
Colour	Light Grey
Odour	Slightly pungent
рН	6.0 - 8.0
Boiling pt / range	>100°C
Melting pt / range	Not applicable
Flash point	Does not flash
Flammability	Not applicable
Freezina point	-5°C
Density	1.23 – 1.26g/ml at 25°C
Viscosity	Not applicable
Water solubility	Miscible
Additional information	None

10. STABILITY & REACTIVITY

Stability	Stable under normal conditions.
Conditions to avoid	None known.
Material to avoid	None known.
Hazardous reactions	None known.
Hazardous decomposition products	Combustion or thermal decomposition will evolve toxic and irritant vapours.
Further information	None.

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11. TOXICOLOGICAL INFORMATION Acute Toxicity (lethal doses) Oral median lethal dose Rat 4200mg/kg Low oral toxicity* Dermal median lethal dose Rabbit >20000mg/kg Unlikely to be hazardous by skin contact* Unlikely to cause harmful effects Median lethal concentration Rat >1.96mg/l (4hrs) Inhalation when handled and used as directed on the label.* Acute Toxicity (irritation, Eye Irritation Moderate irritant to rabbit eyes.* sensitisation etc.) Skin Irritation Mild irritant to rabbit skin.* Skin sensitisation Buehler: It is a skin sensitiser in animal tests.* Long Term Exposure: Chlorothalonil is reported as a high dose threshold carcinogen in rats and Chronic Toxicological effects / long term exposure mice. This is not considered to be a risk to man when handled and used as directed on the label.* * Source of information: Supplier data **12. ECOLOGICAL INFORMATION**

Acute toxicity	LC ₅₀ (96hr) EC ₅₀ (24hr) EC ₅₀ (72hr)	0.195mg/l 0.882mg/l 0.520mg/l	Rainbow trout Daphnia magna Green Algae	Chlorothalonil Chlorothalonil Chlorothalonil	Supplier information Supplier information Supplier information
Degradability	Supplier inform There is evider			nere is evidence of de	gradation in soil
Further information	container. Spil appropriate reg Do not allow di static or flowing permits a narro application. Do not allow di	 There is evidence of rapid degradation in water. There is evidence of degradation in soil Environmental protection. Do not contaminate surface water or ditches with chemical or used container. Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body immediately. Do not allow direct spray from horizontal boom sprayers to fall within 5m of the top of the bank of a static or flowing waterbody, unless a Local Environments Risk Assessment for Pesticides (LERAP) permits a narrower buffer zone, or within 1m of the top of a ditch which is dry at the time of application. Do not allow direct spray from hand-held sprayers to fall within 1m of the top of the bank of a static or flowing waterbody. Direct spray away from water. 			

13. DISPOSAL CONSIDERATIONS

User	Empty containers should not be used for other purposes. Do not contaminate ponds, waterways or ditches with chemical or used containers.
Surplus product / bulk spillage	Dispose of product concentrate, diluted product and empty containers according to the Code of Practice for the Use of Approved Pesticides in amenity and Industrial Areas (published by NAAC/NTC). Disposal should be in accordance with national and local authority regulations, e.g. special waste (e.g. Special Waste Regulations) or incineration, after consultation with the operator.

14. TRANSPORT INFORMATION

United Nations number UN Packing Group	UN3082 III	
Proper Shipping Name	ENVIRONMENTAL	LY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., Ionil 50%)
Road/Rail	ADR/RID Class	9/11
Sea	IMDG Marine Pollutant	9/3082/III Classified as a Marine Pollutant

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15. REGULATORY INFO	RMATION
Classification & labelling	HARMFUL. DANGEROUS FOR THE ENVIRONMENT
	This Safety Data Sheet does not form part of the label approved under the Control of Pesticide Regulations 1986.
	Safety data sheet available to professional user on request.
	To avoid risks to man and the environment, comply with the instructions for use.
DANGEROUS FOR THE HARMF ENVIRONMENT	UL
Current registration no.	UK EIRE MAFF 09265 PCS NO. 00199
Previous registration no.	MAFF 07929
Risk phrases	R20: HARMFUL BY INHALATION. R36/37: IRRITATING TO EYES AND RESPIRATORY SYSTEM. R40: LIMITED EVIDENCE OF A CARCINOGENIC EFFECT. R43: MAY CAUSE SENSITISATION BY SKIN CONTACT R50: VERY TOXIC TO AQUATIC ORGANISMS. R53: MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT
Safety phrases / precautions (from the label)	 Operator protection WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS), SUITABLE PROTECTIVE GLOVES AND FACE PROTECTION (FACESHIELD) when handling the concentrate. WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) when applying by vehicle mounted/drawn equipment. WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) SUITABLE PROTECTIVE GLOVES AND RUBBER BOOTS when using a pedestrian controlled sprayer. WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES when handling contaminated equipment surfaces. WHEN USING DO NOT EAT, DRINK OR SMOKE. WASH SPLASHES from skin or eyes immediately. DO NOT BREATHE SPRAY. THIS PRODUCT MUST ONLY BE APPLIED by pedestrian controlled sprayer or vehicle mounted/drawn equipment. WASH HANDS AND EXPOSED SKIN before eating, drinking or smoking and after work.
	Environmental protection DO NOT CONTAMINATE SURFACE WATER OR DITCHES with chemical or used container. DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within 5m of the top of the bank of a static or flowing waterbody, unless a Local Environments Risk Assessment for Pesticides (LERAP) permits a narrower buffer zone, or within 1m of the top of a ditch which is dry at the time of application. DO NOT ALLOW DIRECT SPRAY from hand-held sprayers to fall within 1m of the top of the bank of a static or flowing waterbody. Direct spray away from water.
	Storage and disposal KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS. KEEP OUT OF REACH OF CHILDREN. KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place. WASH OUT CONTAINER THOROUGHLY and dispose of safely. DO NOT RE-USE CONTAINER for any purpose.
	When using do not eat drink or smoke. This material and its container must be disposed of in a safe way. Wear suitable protective clothing and gloves. Use appropriate containment to avoid environmental contamination.

16. OTHER INFORM	TION			
Further information	The Control of Substances Hazardous to Health Regulations (COSHH) may be applicable to the use of this product.			
	This product was previously marketed by Zeneca Professional (MAFF 06867) and by ICI (MAFF 03658)			
	Risk phrases referred to in section 2 for composite ingredients. R40: Limited evidence of a carcinogenic effect R50: Very toxic to aquatic organisms. R53: May cause long-term adverse effects in the aquatic environment.			
	For further advice authorised persons (e.g. doctor) may contact the National Poisons Informatior Service Centre:			
	UK National number: 0870 600 6266			
	Eire (Dublin) 00 3531 8379964 or 00 3531 8379966			
Sources of data	EH40/2002 and other suppliers' safety data sheets			
Date of issue	January 2004			
	neet is not a specification and it does not guarantee specific properties. The information is al guidance as to health and safety based upon our knowledge of the handling, storage and us	se		

of the product. It is not applicable to unusual or non-standard uses of the product nor where instructions or recommendations are not followed.