



Safety Data Sheet

Conforms to 1907/2006/EC

Version 3

Issue date 10-8-2009

Dynamon-S						
1 Identification of the substance/preparation and of the company/undertaking						
Commercial product name	Dynamon-S					
Common chemical name	Ammonium nitrate with sulphur					
Synonyms	Ammonium nitrate 24 (+7)					
Chemical formula	24%N + 7%S					
Use of the substance/preparation	EC FERTILISER					
EU category number						
Company name	DSM Agro B.V.					
Company address	P.O. Box 601 6160 AP Geleen The Netherlands					
Company telephone	(31) 46 476 00 55					
Company e-mail	dsm.agro@dsm.com					
Emergency telephone	(31) 46 476 55 55				24/24 hours	7/7 days
2 Hazards identification						
Physical/chemical hazards						
Environmental hazards	Slightly harmful to the aquatic environment.					
Effect(s) of (over)exposure						
Symptom(s) of (over)exposure	Dust may cause mechanical irritation.					
Inhalation	Over-exposure by inhalation may cause respiratory irritation. (coughing)					
Ingestion	After intake of large quantities: Can cause gastrointestinal disturbances.					
Skin contact	Slightly irritating to the skin. (redness).					
Eye contact	May cause eye irritation. (redness).					
3 Composition/information on ingredients						
Chemical name	CAS no.	EC no.	% (w/w)	Symbol	R phrases	
Ammonium nitrate	6484-52-2	229-347-8	69	-	-	
Calcium sulfate	7778-18-9	231-900-3	30	-	-	
additives/inert fillers			1			
<i>EC no. means EINECS or ELINCS number.</i>						
4 First aid measures						
General						
Inhalation	If inhaled, remove to fresh air. Obtain medical attention if symptoms occur.					
Ingestion	If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting. Obtain medical attention if symptoms occur.					
Skin contact	Rinse with plenty of running water. Remove contaminated clothing and shoes. Obtain medical attention if symptoms occur.					
Eye contact	Rinse with plenty of running water. Obtain medical attention if symptoms occur.					
Note to physician	methaemoglobinaemia					
5 Fire-fighting measures						
Extinguishing media						

	<p>Small fire</p> <p>Large fire</p> <p>Extinguishing media not to be used</p> <p>Unusual fire and explosion hazards</p> <p>Hazardous thermal decomposition and combustion products</p> <p>Special fire fighting procedures</p>	<p>Non-combustible. Water</p> <p>Non-combustible. Water</p> <p>In case of fire, may produce hazardous decomposition products such as nitrogen oxides (NO, NO₂ etc.), ammonia (NH₃), amines.</p> <p>No special measures required. Wear suitable protective clothing. Self-contained breathing apparatus.</p>
6	Accidental release measures	
	<p>Personal precautions</p> <p>Environmental precautions</p> <p>Methods for cleaning up</p> <p>Small spill and leak</p> <p>Large spill and leak</p> <p>Remarks</p>	<p>Avoid creating dusty conditions and prevent wind dispersal. Use suitable protective equipment (section 8).</p> <p>Avoid contact of spilt material with soil and prevent runoff entering surface waterways.</p> <p>Vacuum or sweep up material and place in a designated, labelled waste container. Clean up affected area with a large amount of water.</p> <p>Vacuum or sweep up material and place in a designated, labelled waste container. Recycle, if possible. Prevent formation of dust clouds. Clean up affected area with a large amount of water.</p> <p><i>Note: see section 8 for personal protective equipment and section 13 for waste disposal.</i></p>
7	Handling and storage	
	<p>Handling</p> <p>Storage</p> <p>Specific use(s)</p> <p>Packaging materials</p>	<p>Use with adequate ventilation. Local exhaust ventilation should be provided. Avoid creating dusty conditions and prevent wind dispersal. Avoid the creation of dust when handling. Avoid contamination by any source including metals, dust and organic materials. Keep away from moisture.</p> <p>Avoid contact with combustible materials. Keep in a cool and dry place. Keep away from hay, grain, diesel etc.</p> <p>EC FERTILISER</p> <p>iron, Synthetic material Non suitable: Zinc., Copper</p> <p><i>Note: See section 10 for stability and reactivity</i></p>
8	Exposure controls / Personal protection	
	<p>Exposure limit values</p> <p>Engineering measures</p> <p>Hygienic measures</p> <p>Personal protection</p> <p>Respiratory system</p> <p>Skin and body</p> <p>Hands</p> <p>Eyes</p> <p>Environmental exposure controls</p>	<p>None required. However, use of adequate ventilation : is good industrial practice.</p> <p>When using do not eat, drink or smoke. Wash hands after handling compounds and before eating, smoking and using the lavatory and at the end of the day.</p> <p>Production scale</p> <p>Wear dust protection mask P2.</p> <p>Working clothes.</p> <p>Wear suitable gloves. > 8 hours (breakthrough time): Butyl rubber Neoprene 4-8 hours (breakthrough time): Teflon</p> <p>Safety glasses with side shields.</p> <p><i>Advice on personal protection is applicable for high exposure levels.</i> <i>Select proper personal protection based on a risk</i></p>
9	Physical and chemical properties	
	<p>Appearance</p> <p>Color</p> <p>Odor</p> <p>Odor threshold</p> <p>Molecular weight</p> <p>pH</p> <p>Boiling point</p> <p>Melting point/ range</p>	<p>Solid. [Granules]</p> <p>Browness</p> <p>Odourless</p> <p>>4.5 (Concentration 10%)</p> <p>Decomposes >200 °C</p> <p>169 °C</p>

Flash point	Not applicable.					
Flammability	Not applicable.					
Autoignition temperature	Not applicable.					
Decomposition temperature	Not applicable.					
Lower explosion limit	Not applicable.					
Upper explosion limit	Not applicable.					
Minimum ignition energy	Not applicable.					
Critical temperature	Not applicable.					
Relative density						
Density						
Loose bulk density	approx. 1150 kg/m ³					
Vapour pressure at 20°C						
Vapour density						
Partition coefficient n-octanol/water						
Viscosity						
Mean particle size	3,6 ± 0,2 mm					
Solubility in water	Ammonium nitrate: 192 g/100 ml (20°C) Ammonium nitrate part 100% soluble in water					
Miscibility						
Fat solubility						
Conductivity						
Gas group						
Remarks						
10 Stability and reactivity						
Stability	Stable under recommended storage and handling conditions (see section 7).					
Conditions to avoid	Decomposes on heating. Confinement must be avoided.					
Materials to avoid	Reducing agents, strong acids and bases, metal powders, combustible materials, chromates, zinc, copper and copper alloys, chlorates.					
Hazardous decomposition products	nitrogen oxides (NO, NO ₂)					
11 Toxicological information						
Acute toxicity						
Ingredient name	Test	Species	Route	Result		
Ammonium nitrate	LD50	Rat	Dermal	>5000 mg/kg		
	LD50	Rat	Oral	2950 mg/kg		
	LD50	Rat	Oral	2800 mg/kg		
	LD50	Rat	Oral	2462 mg/kg		
	LD50	Rat	Oral	2217 mg/kg		
	LC50	Rat	Inhalation dusts and mists	88 mg/L (4 hours)		
Irritation						
Sensitization						
Chronic toxicity						
No known significant effects or critical hazards.						
Carcinogenicity						
No known significant effects or critical hazards.						
Reproductive toxicity						
No known significant effects or critical hazards.						
Mutagenicity						
Ingredient name	Test	Experiment		Result		
Ammonium nitrate	-	In vitro; Bacteria; yes and no: same result		Negative		
Classification						
Ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Ammonium nitrate	-	2A	-	-	-	-
Remarks						
Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. Methaemoglobinaemia						

12 Ecological information						
Ingredient name		Aquatic half-life	Photolysis	Biodegradability		
Ammonium nitrate		-	-	readily		
Ingredient name		Test		Period	Result	
Ammonium nitrate		Daphnia (EC50) Algae (IC50) Fish (LC50)		48 hours 72 hours 96 hours	10-100 mg/L 10-100 mg/L 10-100 mg/L	
Ingredient name		LogPow	Bio-concentration factor	Bioaccumulative potential		
Ammonium nitrate		-3.1	-	low		
Mobility		For data on physical state and solubility see section 9.				
Persistence and degradability		Readily biodegradable This product shows a low bioaccumulation potential.				
Bioaccumulative potential		The product does not contain organically bound halogens which could lead to an AOX value in waste water.				
Ecotoxicity						
13 Disposal considerations						
Responsibility of the receiver to have knowledge of national and local regulations.						
Methods of disposal		Waste must be disposed of in accordance with national and local environmental regulations. Controlled biodegradation in waste water treatment is possible.				
14 Transport information						
Regulatory information	UN number	Proper shipping name	Class	Packing group	Label	Additional information
ADR/RID Class	Not regulated.	Ammonium nitrate 24 (+7)	-	-	-	-
ADNR Class	Not regulated.	Ammonium nitrate 24 (+7)	-	-	-	-
IMDG Class	Not regulated.	Ammonium nitrate 24 (+7)	-	-	-	-
IATA Class	Not regulated.	Ammonium nitrate 24 (+7)	-	-	-	-
15 Regulatory information						
Responsibility of the receiver to have knowledge of national and local regulations.						
EU regulations		EC FERTILISER				
Hazard symbol		According to EU Directives 67/548/EEC and 1999/45/EC this product does not require labelling.				
R- and S phrases		According to EU Directives 67/548/EEC and 1999/45/EC this product does not require labelling.				
National Fire protection Association (U.S.A)						

16	Other information	
	Risk phrases Safety phrases Symbols Storage classification Date previous SDS Modifications in this version References	- - - - 18-9-2007 Address change
<p>All information given by or on behalf of DSM as to properties, specifications, use, etc. of the products is based on research, including literature and is believed reliable. DSM can however, not assume any responsibility therefore nor for performance nor for results obtained through the use of the products or information involved, nor for any damages that may be caused by or to the products or information.</p> <p>In this respect the buyer is obliged to check the quality and all other properties of the products. The buyer assumes all responsibilities connected with the use of the products and information.</p> <p>No liability is assumed for infringement of trademarks, patents or any other rights owned or controlled by third parties by reason of your manufacture, formulation, use or sale of the products and information.</p>		