

Extended Safety Data Sheet
According to Regulation (EU) No. 1907/2006, Annex II,
Amended by REGULATION (EU) No 453/2010

Ammonium chloride

Printing date: 04/03/2014
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SDS Record Number: CSSS-TCO-010-114152
 Version 2.0

Annex to extended safety data sheet (eSDS)

Exposure scenario 1: Manufacturing of the substance

1 Substance / User identity	
Registration number(s)	01-2119489385-24-xxxx
Substance identity	ammonium chloride(CAS#12125-02-9; EC#235-186-4)
Short description of Exposure scenario	Manufacturing
Use Descriptor	Sector of Use: Industrial (SU3, 8, 9) Process Categories: PROC1, PROC 2, PROC 3, PROC 4, PROC 8b Environmental Release Categories: ERC1

2 Manufacturing of the substance

2.1 Exposure scenario

2.1.1 Description of activities and processes covered in the exposure scenario.

Manufacturing of the substance including handling and storage: SU3/8/9, PROC1/2/3/4/8b, ERC1

2.1.2. Control of worker exposure

Worst case operational conditions and risk management measures

Frequency and duration of use			
	Value	Unit	Remarks
Duration of worker exposure	>4	hours/day	
Product characteristics			
Physical state of the substance/product	Solid	solid/liquid	
Volatility of the substance/product	low	hPa	volatility of the substance
Relative molecular weight of the substance	53.49		Needed to calculate from ppm to mg/m ³
Concentration of substance in product	-	%	Not relevant
Operational conditions not accessible for risk management			
Is the activity performed inside or outside?	Inside		
Conditions and measures at process level (source) to prevent/limit release/exposure			
Conditions and measures related to control of dispersion towards the worker			
Is local exhaust ventilation needed?	No		
Conditions and measures related to personal protective equipment and hygiene			
Is respiratory protection needed?	No		
Is skin protection needed?	No		

2.1.3 Risk management measures

Risk management measures related to workers at industrial sites

Information type	Data field	Explanation
Containment and local exhaust ventilation		
Containment plus good work practice	Containment as appropriate	

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required		
Local exhaust ventilation required plus good work practise	Good standard of general ventilation	
Personal protective equipment (PPE)		
Type of PPE (gloves, respirator, face-shield etc)	Chemical goggles	To reduce exposure of the eye to a negligible level
Other risk management measures related to workers		
	Minimize number of staff exposed	
	Segregation of the emitting process	
	Effective contaminant extraction	
	Minimization of manual phases	
	Avoidance of contact with contaminated tools and objects	
	Regular cleaning of equipment and work area	
	Management/supervision in place to check that the RMMs in place are being used correctly and OCs followed	
	Training for staff on good practice	
	Good standard of personal hygiene	

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Exposure scenario 2: Industrial use of ammonium chloride for formulation of preparations and end-use in industrial settings, including distribution and other activities related to the processes in industrial settings

1 Substance / User identity

Title	Industrial use of ammonium chloride for formulation of preparations and end-use in industrial settings, including distribution and other activities related to the processes in industrial settings
Use Descriptor	Sector of Use: Industrial (SU3, 10) Process Categories: PROC2, PROC 3, PROC 4, PROC 5, PROC 8b, PROC 9, PROC 13, PROC 15 Environmental Release Categories: ERC2, ERC 5, ERC 6a, ERC 6b

2 Industrial use of ammonium chloride for formulation of preparations and end-use in industrial settings, including distribution and other activities related to the processes in industrial settings

2.1. Exposure scenario

2.1.1. Description of activities and processes covered in the exposure scenario

Industrial use of ammonium chloride for formulation of preparations and end-use in industrial settings: SU3/10, PC0/12/14/15/21, PROC2/3/4/5/8b/9/13/15, ERC2/5/6a/6b

2.1.2. Control of workers exposure

Worst case operational conditions and risk management measures

Frequency and duration of use			
	Value	Unit	Remarks
Duration of worker exposure	>4	hours/day	
Product characteristics			
Physical state of the substance/product	Solid/liquid	solid/liquid	
Volatility of the substance/product	low	hPa	volatility of the substance
Relative molecular weight of the substance	53.49		Needed to calculate from ppm to mg/m3
Concentration of substance in product	>25	%	Substance as such/in mixture, concentration in product depends on use
Operational conditions not accessible for risk management			
Is the activity performed inside or outside?	Inside		
Conditions and measures at process level (source) to prevent/limit release/exposure			
Conditions and measures related to control of dispersion towards the worker			
Is local exhaust ventilation needed?	No		
Conditions and measures related to personal protective equipment and hygiene			
Is respiratory protection needed?	No		
Is skin protection needed?	No		

2.1.3. Risk management measures

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Risk management measures related to workers at industrial sites

Information type	Data field	Explanation
Containment and local exhaust ventilation		
Containment plus good work practice required	Containment as appropriate	
Local exhaust ventilation required plus good work practise	Good standard of general ventilation	
Personal protective equipment (PPE)		
Type of PPE (gloves, respirator, face-shield etc)	Chemical goggles	To reduce exposure of the eye to a negligible level
Other risk management measures related to workers		
	Minimize number of staff exposed	
	Segregation of the emitting process	
	Effective contaminant extraction	
	Minimization of manual phases	
	Avoidance of contact with contaminated tools and objects	
	Regular cleaning of equipment and work area	
	Management/supervision in place to check that the RMMs in place are being used correctly and OCs followed	
	Training for staff on good practice	
	Good standard of personal hygiene	

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Exposure scenario 3: Professional end-use as fertilizer

1 Substance / User identity			
Title	Professional end-use as fertilizer		
Use Descriptor	Sector of Use: Industrial (SU22) Process Categories: PROC2, PROC 8b, PROC 9, PROC 11 Environmental Release Categories: ERC8b, ERC 8e, ERC 9b		
2 Professional end-use as fertilizer			
2.1. Exposure scenario			
2.1.1. Description of activities and processes covered in the exposure scenario.			
Professional end-use as fertilizer in formulations or as such: SU22, PC12, PROC2/8b/9/11, ERC8b/8e/9b			
2.1.2. Control of workers exposure			
Table 5. Worst case operational conditions and risk management measures			
Frequency and duration of use			
	Value	Unit	Remarks
Duration of worker exposure	> 4	hours/day	
Product characteristics			
Physical state of the substance/product	Solid/liquid	solid/liquid	
Volatility of the substance/product	low	hPa	volatility of the substance
Relative molecular weight of the substance	53.49		Needed to calculate from ppm to mg/m ³
Concentration of substance in product	>25	%	The substance can occur in different concentrations in the end products
Operational conditions not accessible for risk management			
Is the activity performed inside or outside?	Inside/outside		
Conditions and measures at process level (source) to prevent/limit release/exposure			
Conditions and measures related to control of dispersion towards the worker			
Is local exhaust ventilation needed?	No		
Conditions and measures related to personal protective equipment and hygiene			
Is respiratory protection needed?	No		
Is skin protection needed?	No		
2.1.3. Risk management measures related to professionals			
Risk management measures related to workers in professional settings			
Information type	Data field	Explanation	
Containment and local exhaust ventilation			
Containment plus good work practice required	Containment as appropriate		
Local exhaust ventilation required plus good work practise	Good standard of general ventilation		

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Personal protective equipment (PPE)		
Type of PPE (gloves, respirator, face-shield etc)	Chemical goggles	To reduce exposure of the eye to a negligible level
Other risk management measures related to workers		
	Minimize number of staff exposed	
	Segregation of the emitting process	
	Effective contaminant extraction	
	Minimization of manual phases	
	Avoidance of contact with contaminated tools and objects	
	Regular cleaning of equipment and work area	
	Management/supervision in place to check that the RMMs in place are being used correctly and OCs followed	
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Exposure scenario 4: Consumer end-use of fertilizers and as soldering agent

1 Substance / User identity		
Title	Consumer end-use of fertilizers and as soldering agent	
Use Descriptor	Sector of Use: Industrial (SU21) Environmental Release Categories: ERC8a, 8d, 8e	
2 Consumer end-use of fertilizers and as soldering agent		
2.1. Exposure scenario		
21.1. Description of activities and processes covered in the exposure scenario.		
Consumer end-use of fertilizers and as soldering agent: SU21, PC12/38, ERC8a/8d/8e		
2.1.2. Control of consumers exposure		
Risk management measures related to consumers' use		
Information type	Data field	Explanation
Personal protective equipment (PPE) required under regular conditions of consumer use		
Type of PPE (gloves, etc)	goggles	To reduce exposure of the eye to a negligible level
Instructions addressed to consumers		
	Product labelling	