

#### Safety Data Sheet per OSHA HazCom 2012



Product name: N-Ethylheptylamine

# (Contd. of page 1) After skin contact Immediately wash with water and soap and rinse thoroughly. Seek immediate medical advice. After eye contact Rinse opened eye for several minutes under running water. Then consult a doctor. After swallowing Seek medical treatment Information for doctor Most important symptoms and effects, both acute and delayed Causes severe skin burns. Causes serious eve damage. Indication of any immediate medical attention and special treatment needed No further relevant information available. 5 Fire-fighting measures Extinguishing media Extinguishing media Suitable extinguishing agents Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Special hazards arising from the substance or mixture If this product is involved in a fire, the following can be released: Carbon monoxide and carbon dioxide Advice for firefighters Protective equipment: Wear self-contained respirator. Wear fully protective impervious suit. 6 Accidental release measures Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation Keep away from ignition sources Environmental precautions: Do not allow product to reach sewage system or any water course. Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Use neutralizing agent. Dispose of contaminated material as waste according to section 13. Ensure adequate ventilation Dispose of contaminated material as waste according to section 13. Ensure adequate ventilation. **Prevention of secondary hazards:** Keep away from ignition sources. **Reference to other sections** See Section 7 for information on safe handling See Section 8 for information on personal protection equipment. See Section 13 for disposal information. 7 Handling and storage Handling Precautions for safe handling Keep container tightly sealed. Store in cool, dry place in tightly closed containers. Ensure good ventilation at the workplace. Information about protection against explosions and fires: Protect against electrostatic charges. Fumes can combine with air to form an explosive mixture. Conditions for safe storage, including any incompatibilities Conditions for sale storage, more any any any mean for sale storage storage Requirements to be met by storerooms and receptacles: No special requirements. Information about storage in one common storage facility: Do not store together with acids. Store away from oxidizing agents. Further information about storage conditions: Keep container tightly sealed. Store in cool, dry conditions in well sealed containers. Specific end use(s) No further relevant information available. 8 Exposure controls/personal protection Additional information about design of technical systems: Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute. **Control parameters** Components with limit values that require monitoring at the workplace: The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace. Additional information: No data Exposure controls Personal protective equipment General protective and hygienic measures The usual precautionary measures for handling chemicals should be followed. Keep away from foodstuffs, beverages and feed. Remove all soiled and contaminated clothing immediately. Wash hands before breaks and at the end of work. Do not inhale dust / smoke / mist. Avoid contact with the eyes and skin. Maintain an ergonomically appropriate working environment. Breathing equipment: Use suitable respirator when high concentrations are present. Protection of hands: Impervious gloves Check protective gloves prior to each use for their proper condition. The selection of suitable gloves not only depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer. Even end terms of the section: Even end terms of the section: Exposure controls Eve protection: Tightly sealed goggles Full face protection: Body protection: Protective work clothing.

### Product name: N-Ethylheptylamine

		(Contd. of page 2)		
9 Physical and chemical properties				
Information on basic physical and ch				
General Information Appearance:				
Form:				
Color: Odor:	Pale yellow Not determined			
Odor threshold:	Not determined.			
pH-value:	Not determined.			
Change in condition Melting point/Melting range:	Not determined			
Boiling point/Boiling range: Sublimation temperature / start:	181 °C (358 °F) Not determined			
Flammability (solid, gaseous)	Not determined.			
Ignition temperature: Decomposition temperature:	Not determined Not determined			
Auto igniting:	Not determined.			
Danger of explosion: Explosion limits:	Not determined.			
Lower:	Not determined			
Upper: Vapor pressure:	Not determined Not determined			
Density at 20 °C (68 °F):	0.772 g/cm <sup>3</sup> (6.442 lbs/gal)			
Relative density Vapor density	Not determined. Not determined.			
Evaporation rate Solubility in / Miscibility with	Not determined.			
Water:	Not determined			
Partition coefficient (n-octanol/water) Viscosity:	: Not determined.			
dynamic:	Not determined.			
kinematic: Other information	Not determined. No further relevant information available.			
Reactivity No information known. Chemical stability Stable under recommender Possibility of hazardous reactions Re Conditions to avoid No further relevan Incompatible materials: Acids Oxidizing agents Hazardous decomposition products:	<b>to be avoided:</b> Decomposition will not occur if used and stored according to specifications. eacts with strong oxidizing agents t information available.			
LD/LC50 values that are relevant for of Skin irritation or corrosion: Causes se Eye irritation or corrosion: Causes se Sensitization: No sensitizing effects kno Germ cell mutagenicity: No effects kno Carcinogenicity: No classification data Reproductive toxicity: No effects know Specific target organ system toxicity Specific target organ system toxicity Aspiration hazard: No effects known.	evere skin burns. rrious eye damage. own. own. on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH. vn. <b>- repeated exposure</b> : No effects known.			
12 Ecological information Toxicity Aquatic toxicity: No further relevant inf Persistence and degradability No furth Bioaccumulative potential No further r Mobility in soil No further relevant infor Additional ecological information: General notes: Do not allow undiluted product or large of Avoid transfer into the environment. Results of PBT and vPvB assessmen PBT: Not applicable. vPvB: Not applicable. Other adverse effects No further relevant	relevant information available. rmation available. quantities to reach ground water, water course or sewage system. t			
13 Disposal considerations				
Waste treatment methods	or national regulations to ensure proper disposal. nade according to official regulations.			
14 Transport information	14 Transport information			
UN-Number	UN2733			
DOT, IMDG, IATA	01127.55	(Contd. on page 4)		

(Contd. on page 4) USA

## Safety Data Sheet per OSHA HazCom 2012

UN proper shipping name DDG, IATA       Amines, flammable, corosive, n.o.s. (N-Ethylheptylamine)         Transport hazard class(es)       AMINES, FLAMMABLE, CORROSIVE, N.O.S. (N-Ethylheptylamine)         DOT       Image: Class construction of the constene of the construction of the construction		Reviewed on 11/10/2014	
UN proper shipping name Addites, Flammable. correspie, n.o.s. (N-Ethylhodylamino) Addites, FLAMAABLE, COMPOSINE, N.O.S. (N-Ethylhodylamino), Addites, FLAMAABLE, TANAABLE, COMPOSINE, N.O.S. (N-Ethylhodylamino), Addites, FLAMAABLE, COMPOSINE, N.O.S. (N-Ethylhodyla	Product name: N-Ethylheptylamine		
Bit G       Arrian       Animes, fearmable converse, n.o.s. (N-Ethylhepdylamine).         AMMES_TEAMABLE_CONTROL NO.S. (N-Ethylhepdylamine).       AMMES_TEAMABLE_CONTROL NO.S. (N-Ethylhepdylamine).         OF       AMMESTANDA		(Contd. of page 3)	
Transport hazard class(es) DOT  O  O  O  Class		Amines, flammable, corrosive, n.o.s. (N-Ethylheptylamine)	
DOT       Weiler       Yeiner       Yeiner         Class       Yeiner       Yeiner       Yeiner         Pott, Midde, Kra       III       III       Yeiner         Dot, Midde, Kra       III       III       IIII         Special preceations for user       Weining: Flammable liquids.       Yeiner         Transport In bulk sociedling to Annex II of MARPOL7379 and the IBC Code Not applicable.       Transport IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII		AMINES, FLAMMABLE, CORROSIVE, N.O.S. (N-Ethylheptylamine)	
Label       3+8         Chass       3+6         MIDD       6+4         Chass       3+6         Chass       3+6         Chass       3+6         Dot, IMOG, IA TA       III         Dot, IMOG, IA TA       III         Dot, IMOG, IA TA       III         Special procession       Not applicable         Special procession       Warning: Flammable liquids         Special procession for user       Head         Farshport Moditional Information:       FLESSO         Dor, Information       Not         Model Regulation: (Information:       Not         UN* "Model Regulation: Information       Not         Strict, Incent and convictionmental regulations/legislation specific for the subclance or mixture         GHS Data or who applications       Amines         Strict, Incent and convictionmental regulations/legislation specific for the subclance or mixture         GHS Data or who applications in the product is classified and labeled in accordance with 20 CFR 1910 (OSHA HCS)         MiXed       Strict, Incent and convictionmental regulations/legislation subscripts         Strict, Incent and convictionmental regulations/legislation subscripts       Strict and conviction subscripts         Strict, Incent and convictionmental regulations/legislation subscripts <t< th=""><th></th><th></th></t<>			
Libel       3+PC	🔶 🚔		
Class       3/fCO; Flammable liquids         Mixed, ATA       3/fSO         Class       3 Flammable liquids         Special processultons for user       Warning: Flammable liquids         FMS Number:       FLS Class         Transport In bulk according to Annox II of MARPOLT378 and the IBC Code Not applicable.       Transport In bulk according to Annox II of MARPOLT378 and the IBC Code Not applicable.         Transport In bulk according to Annox II of MARPOLT378 and the IBC Code Not applicable.       Transport In bulk according to Annox II of MARPOLT378 and the IBC Code Not applicable.         Transport In bulk according to Annox II of MARPOLT378 and the IBC Code Not applicable.       Transport In bulk according to Annox II of MARPOLT378 and the IBC Code Not applicable.         Transport In bulk according to Annox II of MARPOLT378 and the IBC Code Not applicable.       Transport In bulk according to Annox II of MARPOLT378 and the IBC Code Not applicable.         Mix Model Regulation*:       UN2733. Amines. flammable (quids.         Mix Model Regulation*:       UN2733. Amines. flammable. Corrosive, n.o.s. (N-Ethylheptylamine).3 (0). III         Mix Model Regulation*:       Envide Notapplicable. <td< th=""><th></th><th></th></td<>			
MIDG, (ATA         Very       See         Lines       3-16         Decking group	Class	3 (FC) Flammable liquids	
Label       3+8         Packing group ODT, MMOG, NTA       III         Environmental hazards:       Not applicable.         Special precautions for user       Warning: Flammable liquids EdS Numbers         EdS Numbers       Package         Transport Modification of user       Package         Transport Modification of user       Not         DOT       No         DOT       Martine Pollutant (DOT):         DOT       No         UN "Model Regulation":       UN2733, Annines. flammable, corrosive, n.o.s. (N-Ethylheptylamine), 3 (8), III         UN "Model Regulation":       UN2733, Annines. flammable, corrosive, n.o.s. (N-Ethylheptylamine), 3 (8), III         UN "Model Regulation":       UN2733, Annines. flammable, corrosive, n.o.s. (N-Ethylheptylamine), 3 (8), III         UN "Model Regulation":       UN2733, Annines. flammable, corrosive, n.o.s. (N-Ethylheptylamine), 3 (8), III         UN "Model Regulation information       Sector Status         Signal word Danger       Package         P10       Keene sway from heal/sparks/open flames/hg surfaces. No smoking.         P201       Keene sway from heal/sparks/open flames/hg surfaces. No smoking.         P201       Keene sway from heal/sparks/open flames/hg surfaces. No smoking.         P201       Keene sway from heal/sparks/open flames/hg surfaces. No smoking. <t< th=""><th></th><th>3+8</th></t<>		3+8	
Label       3+8         Packing group ODT, MidOG, MTA       III         Environmental hazards:       Not applicable.         Special precautions for user       Warning: Flammable liquids FLSSC         Segregation groups       Alkalis         Transport Middlional Information:       DOT         DOT       Mainter Pollutant (DOT):         UN "Mode Regulation?       UN2733, Annines. flammable, corrosive, n.o.s. (N-Ethylheptylamine), 3 (8), III         15 Regulatory information       Safety, health and environmental regulations/legislation specific for the substance or mixture GMS and prevention is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS)         6 HS02 CHS05       Signal word Danger Hazard Statements       The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS)         710       Kee and the substance or mixture GMS 20 CHS05       Signal word Danger Hazard Statements       The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS)         7200       Kee and Vapour, Hazard Statements       The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS)         7201       Kee and Vapour, Hazard Statements       The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS)         7203       Flammable Regulations/ teges and Vapour, Hazard Statements       The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS)         7201	🔶 🚭		
Environmental hazards:         Not applicable.           Special presentions for user         Warning: Special presentions for user           EMS Number:         Segregation groups           Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.         Transport Additional Information:           DOT         Marine Pollutant (DOT):         No           Marine Pollutant (DOT):         No           UW Model Regulator:         UWZ733, Amines, flammable, corrosive, n.o.s. (N-Ethylheptylamine), 3 (8), III           58 Regulatory information         Safety, health and environmental regulations/Registation specific for the substance or mbxture           GHS 20 GHS02         GHS02           WW         With and environmental regulations/Registation specific for the substance or mbxture           GHS 20 GHS05         Signal word Danger           H226 Fammable Regulatory information         Regulatory information           Second Process         Signal word Danger           H226 Fammable Regulatory information         Regulatory information           Signal word Danger         H226 Fammable Regulatory information           F226 Do not breathe dust/tumergas/mst/vapours/spray.         Perceutionary statements:           P203 For Site In a sing on hard, Take of Immediately all contaminated clothing. Rinse skin with water/shower.           P203 For Site In a sing on hard, Take of Immedia	Label		
Special precentions for user       Warring: Flammable liquids         EMS Number:       FE.S.C         Segregation groups       Atkalis         Transport/Additional information:       DOT         DOT       Maine Pollutant (DOT):         No       UN2733, Amines, flammable, corrosive, n.o.s. (N-Ethylheptylamine), 3 (8), III         JB       Fegulatory information         Stripp: health and environmental regulations/legislation specific for the substance or mixture         GHS labelements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS)         WW       Wood         Wood       Fegulatory information         Signal word Danger       Hazard pictograms         H220 GHS05       Signal word Danger         H220 GHS05       Signal word Danger         H220 Family Signal word Danger       Hazard statements         P210       Keep away from healtsparks/open flames/hot surfaces. No smoking:         P2010       Keep away from healtsparks/open flames/hot surfaces. No smoking:         P2010       Keep away from healtsparks/open flames/hot surfaces. No smoking:         P2010       Keep away from healtsparks/open flames/hot surfaces. No smoking:         P2010       Keep away from healtsparks/open flames/hot surfaces. No smoking:         P2010       Stripp away from healtsparks/open flames/ho	Packing group DOT, IMDG, IATA	III	
EMS Number:       FES_C         Segregation groups       Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.         Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.         DOT       Morine Pollutant (DOT):         No       UN "Model Regulation":         UN "Model Regulation":       UN2733, Amines, flammable, corrosive, n.o.s. (N-Ethylheptylamine), 3 (B). III         Steps, health and environmental regulations/legislation specific for the substance or mixture Grief hand environmental regulations/legislation specific for the substance or mixture Grief hand environmental regulations/legislation specific for the substance or mixture Grief hand environmental regulations/legislation specific for the substance or mixture Grief hand environmental regulations/legislation specific for the substance or mixture Grief hand environmental regulations/legislation specific for the substance or mixture Grief hand environmental regulations/legislation specific for the substance or mixture Grief hand environmental regulations.         File Contrast Step Step Step Step Step Step Step Ste	Environmental hazards:		
Transport in bulk according to Annex II of MARPOLT3/T8 and the IBC Code Not applicable.         Transport/Additional information:         DOT         Marine Pollutant (DOT):         No         UN "Model Regulation":         UN "Soft Reserved Re	EMS Number:	Warning: Flammable liquids F-E-S-C	
Transport/Additional information:       DOT         Marine Pollutant (DOT):       No         UN "Model Regulation":       UN2733. Amines, flammable, corrosive, n.o.s. (N-Ethylheptylamine), 3 (8), Ill         15 Regulatory information       Safety, health and environmental regulations/legislation specific for the substance or mixture         GHS label elements: The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS)         Hazard pictorgrams         Image: Construction         Safety, health and environmental regulations/legislation specific for the substance or mixture         GHS label elements: The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS)         Hazard pictorgrams         Image: Construction         Image: Construction         March Statements:         Precautionary statements:         Precautionary statements:         Precautionary statements:         Product must statements:         Product must statements:         Part Construction         Part Possition         Part Possition         Part Possition         Part Possition         Product must statements:         Precautionary statements:         Precautionary statements:         Product must state on thele (in the U.S. Environmental Protection Agency roxic Substance c	Segregation groups Alkalis		
Marine Pollutani (DOT):         No           UN "Model Regulation":         UN2733, Amines, flammable, corrosive, n.o.s. (N-Ethylheptylamine), 3 (8), III           15 Regulatory information         Safety, health and environmental regulations/legislation specific for the substance or mixture GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS) Hazard pictograms           Www         Www         Www         Wwww         Www			
UN "Model Regulation":         UN2733, Amines, flammable, corrosive, n.o.s. (N-Ethylheptylamine), 3 (8), III           15 Regulatory information         Safety, health and environmental regulations/legislation specific for the substance or mixture GMS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS) Hazard pictograms <i>W</i>		Νο	
15 Regulatory information         Safety, health and environmental regulations/legislation specific for the substance or mixture GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS) Hazard pictograms <i>w w</i>		UN2733, Amines, flammable, corrosive, n.o.s. (N-Ethylheptylamine), 3 (8), III	
market and use must be observed. Substance is not listed. Annex XIV of the REACH Regulations (requiring Authorisation for use) Substance is not listed. Chemical safety assessment: A Chemical Safety Assessment has not been carried out. <b>16 Other information</b> Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of t information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product n conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user. Department issuing SDS: Global Marketing Department Date of preparation / last revision 11/24/2015 / -	Hāzard statements         H226 Flammable liquid and vapour.         H314 Causes severe skin burns and eye damage.         Precautionary statements         P210       Keep away from heat/sparks/open flames/hot surfaces. No         P260       Do not breathe dust/fume/gas/mist/vapours/spray.         P303+P361+P353 If on skin (or hair): Take off immediately all contaminated cl         P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minute.         P405       Store locked up.         P501       Dispose of contents/container in accordance with local/regi         National regulations       This product is not listed in the U.S. Environmental Protection Agency Toxic Store search and development only. This product must be used by or directly ur product must not be used for commercial purposes or in formulations for common This product is not listed on the Canadian Domestic Substances List (DSL) or SARA Section 313 (specific toxic chemical listings) Substance is not listed.         Prop 65 - Chemicals known to cause cancer Substance is not listed.         Prop 65 - Developmental toxicity, female Substance is not listed.         Prop 65 - Developmental toxicity, remale Substance is not listed.         Prop 65 - Developmental toxicity, remale Substance is not listed.         Prop 65 - Developmental toxicity null Substance is not listed.         Prop 65 - Developmental toxicity remale Substance is not listed.         Prop 65 - Developmental toxicity nuale Substance is not listed.	Iothing. Rinse skin with water/shower. s. Remove contact lenses, if present and easy to do. Continue rinsing. ional/national/international regulations. ubstances Control Act Chemical Substance Inventory. Use of this product is restricted inder the supervision of a technically qualified individual as defined by TSCA. This nercial purposes. the Canadian Non-Domestic Substances List (NDSL).	
Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of t information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product n conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user. <b>Department issuing SDS:</b> Global Marketing Department <b>Date of preparation / last revision 1</b> 1/24/2015 / -	market and use must be observed. Substance is not listed. Annex XIV of the REACH Regulations (reguiring Authorisation for use) St	ubstance is not listed.	
WHMIS: razardous inateriais toeflutication system (CSA) WHMIS: Workplace Hazardous Materials Information System (Canada) LC50: Lethal concentration. 50 percent	Employers should use this information only as a supplement to other information information to ensure proper use and protect the health and safety of employer conformance with this Material Safety Data Sheet, or in combination with any of Department issuing SDS: Global Marketing Department Date of preparation / last revision 11/24/2015 / -	es. This information is furnished without warranty, and any use of the product not in other product or process, is the responsibility of the user.	
	LD50: Lethal dose, 50 percent	(Contd. on page 5)	

### Product name: N-Ethylheptylamine

vPvB: very Persistent and very Bioaccumulative ACGIH: American Conference of Governmental Industrial Hygienists (USA) OSHA: Occupational Safety and Health Administration (USA) NTP: National Toxicology Program (USA) IARC: International Agency for Research on Cancer EPA: Environmental Protection Agency (USA) (Contd. of page 4)

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