

SAFETY DATA SHEET



Conforms to GB13690-2009, GB/T16483-2008 、 Globally Harmonized System of Classification & Labelling of Chemicals(GHS)

Aflux 18

56046554

Section 1. Chemical product and company identification

GHS product identifier : Aflux 18

Recommended use of the product and restrictions on use : Processing aid

Supplier/Manufacturer : Rheinchemie (Qingdao) Ltd.
address:43 Siliubei Road,Qingdao,266043,PR China
Tel: +86 532 84821670 / +86 532 84829188/ +86-532-84829298
Email: lxs-sds-china@lanxess.com
莱茵化学（青岛）有限公司
中国青岛市四流北路43号
266043
邮箱地址: lxs-sds-china@lanxess.com

Emergency telephone number : 0086-532-83889090(China)

Section 2. Hazards identification

Classification of the substance or mixture according to GB 13690-2009 and GB 30000-2013

Emergency overview

Solid. [Flakes.]

White.

Amine-like.

May be harmful if swallowed. Causes serious eye damage. Causes skin irritation. May be fatal if swallowed and enters airways. May cause damage to organs through prolonged or repeated exposure. (gastrointestinal tract, immune system, liver) Very toxic to aquatic life with long lasting effects.

See Section 12 for environmental precautions.

Classification of the substance or mixture : ACUTE TOXICITY (oral) - Category 5
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE)
(gastrointestinal tract, immune system and liver) - Category 2
ASPIRATION HAZARD - Category 1
ACUTE AQUATIC HAZARD - Category 1
LONG-TERM AQUATIC HAZARD - Category 1

GHS label elements

Hazard pictograms :



Signal word : Danger

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Section 2. Hazards identification

Hazard statements	: H303 - May be harmful if swallowed. H318 - Causes serious eye damage. H315 - Causes skin irritation. H304 - May be fatal if swallowed and enters airways. H373 - May cause damage to organs through prolonged or repeated exposure. (gastrointestinal tract, immune system, liver) H410 - Very toxic to aquatic life with long lasting effects.
Precautionary statements	
Prevention	: Wear protective gloves and eye/face protection. Avoid release to the environment. Do not breathe dust. Wash hands thoroughly after handling.
Response	: Collect spillage. Get medical attention if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.
Storage	: Store locked up.
Disposal	: Dispose of contents and container in accordance with all local, regional, national and international regulations.
Physical and chemical hazards	: No known significant effects or critical hazards.
Health hazards	: May be harmful if swallowed. Causes serious eye damage. Causes skin irritation. May be fatal if swallowed and enters airways. May cause damage to organs through prolonged or repeated exposure. (gastrointestinal tract, immune system, liver)
Environmental hazards	: Very toxic to aquatic life with long lasting effects.
Other hazards which do not result in classification	: None known.

Section 3. Composition/information on ingredients

Substance/mixture	: Substance
Other means of identification	: Not available.

CAS number/other identifiers

CAS number	: Not available.
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Ingredient name	%	CAS number
Octadecylamine	100	124-30-1

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : May give off gas, vapour or dust that is very irritating or corrosive to the respiratory system.
- Skin contact** : Causes skin irritation.
- Ingestion** : May be harmful if swallowed. May be fatal if swallowed and enters airways. May cause burns to mouth, throat and stomach.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
- Ingestion** : Adverse symptoms may include the following:
stomach pains
nausea or vomiting

Section 4. First aid measures

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : No specific treatment.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

- Suitable extinguishing media** : In case of fire, use water spray (fog), foam, dry chemical or CO₂.
- Unsuitable extinguishing media** : None known.

- Specific hazards arising from the chemical** : This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

- Personal precautions, protective equipment and emergency procedures** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Provide adequate ventilation. Put on appropriate personal protective equipment.

- Environmental precautions** : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects. Collect spillage.

Methods and material for containment and cleaning up

- Small spill** : Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.

Section 6. Accidental release measures

- Large spill** : Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

- Precautions for safe handling** : Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not get in eyes or on skin or clothing. Do not swallow. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous.
- Conditions for safe storage, including any incompatibilities** : Do not store above the following temperature: 30°C (86°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

- Occupational exposure limits** : Not available, all components are not listed in GBZ2.1-2007 at present.
- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
- Appropriate engineering controls** : If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Section 8. Exposure controls/personal protection

- Eye protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.
Recommended: safety glasses with side-shields
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. After contamination with product change the gloves immediately and dispose of them according to relevant national and local regulations
Recommended: (< 1 hour) Polyvinyl chloride - PVC Nitrile rubber - NBR
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: Wear protective clothing.
- Other skin protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Recommended: Wear protective clothing.
- Respiratory protection** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Recommended: In case of dust formation particle filter

Section 9. Physical and chemical properties

Appearance

- Physical state** : Solid. [Flakes.]
- Colour** : White.
- Odour** : Amine-like.
- Odour threshold** : Not available.
- pH** : Not available.
- Melting point** : 50 to 60°C (122 to 140°F)
- Boiling point** : 349°C (660,2°F)
- Flash point** : Closed cup: 150°C (302°F)
- Burning time** : Not available.
- Burning rate** : Not available.
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Not available.
- Vapour pressure** : <0.0001 hPa (20°C)
- Vapour density** : Not available.
- Relative density** : 0,8
- Ignition temperature** : 265°C
- Auto-ignition temperature** : Not applicable.
- Decomposition temperature** : Not available.
- SADT** : Not available.
- Viscosity** : Dynamic (room temperature): 7 mPa·s (7 cP)

Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : No specific data.
- Incompatible materials** : No specific data.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure	Test
Octadecylamine	LD50 Oral	Rat - Male, Female	>2000 mg/kg	-	OECD 401 Acute Oral Toxicity
Octadecylamine	LD50 Dermal	Rat - Male, Female	>2000 mg/kg	-	OECD 402 Acute Dermal Toxicity

Conclusion/Summary : Octadecylamine:Dosage caused no mortality

Irritation/Corrosion : Not available.

Sensitisation : Not available.

Mutagenicity : Not available.

Carcinogenicity : Not available.

Reproductive toxicity : Not available.

Teratogenicity : Not available.

Specific target organ toxicity (single exposure) : Not available.

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Octadecylamine	Category 2	Not determined	gastrointestinal tract, immune system and liver

Aspiration hazard

Section 11. Toxicological information

Name	
octadecylamine	ASPIRATION HAZARD - Category 1

Information on likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : May give off gas, vapour or dust that is very irritating or corrosive to the respiratory system.
- Skin contact** : Causes skin irritation.
- Ingestion** : May be harmful if swallowed. May be fatal if swallowed and enters airways. May cause burns to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
- Ingestion** : Adverse symptoms may include the following:
stomach pains
nausea or vomiting

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Potential chronic health effects

- General** : May cause damage to organs through prolonged or repeated exposure.

Section 12. Ecological information

Toxicity

Product/ingredient name	Test	Result	Species	Exposure
Octadecylamine	-	Acute EC50 1,7 mg/l Fresh water	Daphnia - Water flea - Daphnia magna - <24 hours	48 hours

Persistence/degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Octadecylamine	7,7	-	high

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	China	IMDG	IATA
UN number	UN3077	UN3077	UN3077
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (STEARYLAMINE)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (STEARYLAMINE)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (STEARYLAMINE)
	9	9	9

Section 14. Transport information

Transport hazard class(es)	 	 	 
Packing group	III	III	III
Environmental hazards	Yes	Yes	Yes
Special precautions for user		Emergency schedules (EmS) F-A, S-F	Passenger aircraft 956: 400 kg Cargo aircraft 956: 400 kg

Transport in bulk according to Annex II of Marpol and the IBC Code : Not available.

Hazard notes:

Environmentally hazardous substance.
Irritating to skin.
Risk of serious damage to eyes.
Avoid heat above +35 °C.
Keep away from foodstuffs, acids and alkalis.

Transportation Notes

- Appropriate & sufficient fire-fighting facilities and spill emergency handling apparatus should be equipped with the transport vehicles.
- In case of products with explosive, flammable, self-reactive, pyrophoric, self-heating and oxidizing properties:
 - Tank cars used in transport should be equipped with a grounding chain; a porous separator plate may be provided in the tank car to reduce static electricity shocks.
 - The exhaust pipes of vehicles used for shipping this product must be equipped with fire retardant devices. The use of mechanical equipment or tools prone to sparking is prohibited.
 - Protect against exposure to sun, rain and high temperatures during transit; in summer, transport should ideally be in the morning or evening.
 - Keep away from fire, heat and high temperature zones during stopovers.
 - When transporting over public roads, select routes compliant with regulations and do not stop over in residential or densely populated areas.

Section 15. Regulatory information

Inventory of Hazardous Chemicals

None of the components are listed.

Following regulations were referred :

1. Regulations of the Safety Administration of Dangerous Chemicals
2. Rules for classification and labeling of chemicals (30000.2~29)
3. Lists of dangerous goods (GB12268)
4. Safety Data Sheet for Chemical Products -Content and Order of Sections (GB/T16483-2008)
5. Classification and Code of Dangerous Goods (GB6944)
6. List of hazardous waste (2008.08.01)
7. GA57-92 Levels, classification and code of hypertoxic substance
8. Occupational exposure limits for hazardous agents in the workplace Part 1: Chemical

Section 15. Regulatory information

hazardous agents GBZ 2.1-2007)

Section 16. Other information

History

Date of issue/Date of revision	: 2017-03-02
Date of previous issue	: No previous validation
Version	: 1
Key to abbreviations	: ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The above details do not imply any guarantee concerning composition, properties or performance.