Safety Data Sheet
COMMISION REGUALTION (EU) NO 2015/830 OF 1st June 2015
Amending Annex II of Regulation EU No 453/2010 **Revision No**-5
Printing Date 25/08/2020 **Product Name** – 3(2-ethylhexyloxy)Propylamine **Revision Date**-24/08/2020

1. Identification Of the Substance

1.1 Product Identifier

- ***Product Name:*** *3-(2-Ethylhexyloxy)propylamine*
- ***Synonym/IUPAC name :*** *3-[(2-ethylhexyl)oxy]propan-1-amine*
- ***CAS :*** *5397-31-9*
- ***EC No:*** *226-420-6*

1.2 Relevant Identified Uses of the substance or mixture and uses advised against: *as an intermediate in synthesis*

1.3 Details of the Supplier of the Safety Data Sheet

– ***Manufacturer/supplier:***

Alkyl Amines Chemicals Ltd
401-407 , Nirman Vyapar Kendra, Plot No-10
Sect-17, Vashi, Navi Mumbai
India – 400703
Emergency Contact no- +91 2117 235175 / 235222 Mobile no: +919881973507 / +919423002721
Emergency Contact No for US only- *+1 703 527 3887 / 800 424 9300*

e-mail Address of the competent Person responsible for Safety Data Sheet:
rsattigeri@alkylamines.com
Information Dept: R&D

1.4 Emergency Telephone Numbers : *As mentioned above*

2. Hazard Identification

2.1Classification of Substance or Mixture

– ***Classification According to EC regulation 1272/2008***

GHS06 Acute Toxicity , dermal Cat 3 H311- *Toxic in contact with skin*

GHS05 Skin Corrosion Cat- 1B H314- *Causes severe skin burns and eye damage*

GHS 09 Aquatic chronic toxicity Cat-2 H411- *Toxic to aquatic life with long lasting effect.*

GHS 07Acute Oral Toxicity Cat-4 H302- *Harmful if swallowed.*

- Labelling according to EC Regulation No 1272/2008
The substance is classified and labelled according to CLP Regulation

Hazard Pictograms

Signal word – *Danger*
Hazard Statements-
H311 *Toxic in contact with skin*
H314 *Causes severe skin burns and eye damage.*
H302 *Harmful if swallowed.*
H411 *Toxic to aquatic life with long lasting effects.*
Precautionary statements
Prevention
P270 *Do not eat, drink or smoke when using this product*
P273 *Avoid release to the environment.*
P280 *Wear protective gloves/protective clothing/eye protection/face protection..*
Response
P302+P352 IF ON SKIN *, wash with plenty of water*
P305+P351+P338 IF IN EYES*: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing*
Storage
P405 *Store locked up*
Disposal
P501 *Dispose of the content/container in accordance with the local/regional/national/international regulation*
Additional Precautionary statement –
P310 *Immediately Call a POISON CENTER or doctor/physician.*
2.3 Other hazards
Results of PBT and vPvB assessment
PBT/vPBT assessment not available as Chemical safety assessment not carried out

3.Composition/Information on Ingredients

Description	***CAS No***	***EC No***	***Content (% w/w)***
3-(2-Ethylhexyloxy)propylamine	*5397-31-9*	*226-420-6*	*>99.0*

Molecular Formula *– C11H25NO*
Molecular Wt- *187.30 g/mole*

4.First- Aid Measures

--4.1 Description of first aid measures
- General information:
Immediately remove any clothing contaminated by the product.
If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position).
-After inhalation:
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor.
--After skin contact:

Take off contaminated cloths immediately. Wash the portion with soap and plenty of water.. If skin irritation continues, consult a doctor.

- After eye contact:

Rinse opened eye for several minutes under running water. Use eye protection. Call Doctor immediately.

- After swallowing:

.. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

- 4.2 Most important symptoms and effects, both acute and delayed

Material is destructive to the tissue of mucus membrane , upper respiratory tract ,eyes and skin.

- 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5. Fire Fighting Measures

-5.1 Extinguishing media

Suitable extinguishing agents

Carbon dioxide (CO_2), extinguishing powder or water spray/fog , foam.

*· **For safety reasons unsuitable extinguishing agents**. : Not Applicable.*

- 5.2 Special hazards arising from the substance or mixture

Nitrogen oxides (NOx)

Carbon monoxide (CO) and Carbon dioxide (CO_2)

- 5.3 Advice for fire-fighters

***- Protective equipment:** Wear self-contained breathing apparatus.*

- Additional information

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations

Use water spray to cool unopened containers.

6.Accidental release Measures

- 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation.

Use breathing protection against the effects of fumes/dust/aerosol.

Avoid inhalation, contact with skin and eyes.

-6.2 Environmental precautions:

Do not allow to enter drainage system, surface or ground water.

Inform respective authorities in case product reaches water or sewage system.

Prevent material from reaching sewage system, holes and cellars.

- 6.3 Methods and material for containment and cleaning up:

Use explosion proof equipments

Wear self-contained breathing apparatus and protective suit.

Ensure adequate ventilation.

For small amounts absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).For large amounts –pump off the material

Dispose of the material collected according to regulations.

- 6.4 Reference to other sections

See Section 8 for information on personal protection equipment.

7. Handling and Storage

-7.1 Precautions for safe handling

Ensure thorough ventilation/exhaustion at the workplace.

Ensure good interior ventilation, especially at floor level (fumes are heavier than air).

Restrict the quantity stored in the work place.

Do not inhale vapours/aerosols.

Avoid skin and eye contact under any circumstances.

Wash the hands and face before breaks and at the end of the shift.
Do not eat, drink or smoke when handling the substance.
· ***Information about protection against explosions and fires:***
Keep ignition sources away - Do not smoke.
Keep fire extinguishers handy.
Protect against electrostatic charges.
- 7.2 Conditions for safe storage, including any incompatibilities
· ***Storage***
· ***Requirements to be met by storerooms and containers:***
Store under shade at ambient temperature (<45^{0}C) & dry conditions in well-sealed containers
Observe regulations for storage of flammable liquids.
Observe all local and national regulations for storage of water polluting products.
· ***Information about storage in one common storage facility:***
Observe regulations for storage of flammable liquids.
· ***Further information about storage conditions:***
Protect from heat and direct sunlight.
Store container in a well ventilated place.
Protect from overexposure to light.
Protect from humidity and keep away from water.
- 7.3 Specific end use(s) *Refer section 1.*

8. Exposure Control/Personal Protection

- Additional information about design of technical systems: *No further data; see item 7.*
- 8.1 Control parameters
Components with workplace control parameters
- Additional information:
-8.2 Exposure controls
Appropriate Engineering controls:
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of work day.
-Personal protective equipment
- General protective and hygienic measures
Keep away from foodstuffs, beverages and food.
Do not eat, drink or smoke while working.
Instantly remove any contaminated garments.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.
Wash hands during breaks and at the end of the work.
- Breathing equipment:
Self contained breathing apparatus with full face shield.
Where risk assessment shows air-purifying respirators are appropriate, use a full-face respirator with Multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
- Protection of hands:
Protective gloves
To avoid skin problems reduce the wearing of gloves to the required minimum.
Check the permeability prior to each renewed use of the glove.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.
- Material of gloves
Butyl rubber
Recommended thickness of the material: > 0.5 mm
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

- ***Penetration time of glove material***

Penetration time: ≥ 4 hours

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- ***Eye protection:*** *Tightly sealed safety glasses. Wear face shield if splashing hazard exists.*
- ***Body protection:***

Use protective suit.

Body protection must be chosen depending on activity and possible exposure.

9. Physical and Chemical Properties

-9.1 Information on basic Physical and Chemical Properties

General Information-

Appearance/Physical state /colour	*Colourless to light yellow liquid*
Explosive limit Upper ***lower***	*4.7 vol %* *1.0 vol %*
Odour	*Ammonia like*
Vapour pressure	*133 mbar @ 162°C*
Odour Threshold	*No data available*
Relative Vapour density	*No data available)*
PH (10% in water)	*11 @ 25 °C*
Relative Density	*0.8480*
Melting point/freezing point	*< -70.0 °C*
Solubility in water	*1-1.5 g/L @ 25°C*
Initial Boiling Point/Boiling Range	*235-237 °C @ 1.013hPa*
Flash Point	*103 °C (c.c)*
Evaporation Rate	*No data available*
Flammability (solid, gas)	*Not Applicable*
Partition Coefficient : n-Octanol Water	*Log Pow= 2.6*
Auto ignition Temperature	*220 °C*
Decomposition temperature	*No data available*
Viscosity- dynamic ***Kinematic***	*No data available*
Danger of Explosion	*Product is not explosive. However, formation of explosive air/vapour mixtures is possible.*

-9.2 Other Information- *Not available*

10. Stability and Reactivity

-10.1 Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

- 10.2 Chemical stability

Substance is stable under recommended conditions.

- Thermal decomposition / conditions to be avoided:

Avoid source of ignition , heat, spark or open flame.

- 10.3 Possibility of hazardous reactions

Exothermic reaction with -
acids ,
acid anhydrides,
acid chlorides
strong oxidizing agents

- ***10.4 Conditions to avoid :***No further relevant information available.
- ***10.5 Incompatible materials:***

Strong oxidising agents. , acids, acid anhydrides, acid chlorides

- ***10.6 Hazardous decomposition products:***

Carbon monoxide, carbon dioxide, Nitrogen oxide (NOx)

11. Toxicological Information

-11.1 Information on Toxicological effects

Acute Toxicity –

LD50/LC50 value that are relevant for classification	
LD50 Oral (Rat)	320 mg/kg
LD50 Dermal (Rabbit)	305 mg.kg
LC50 inhalation , Rat	No data available
Skin corrosion/irritation	Irritant to skin and mucous membrane
Serious eye damage/eye irritation	Irritating effect
Respiratory/skin sensitization	May cause chemical burns to respiratory track with dizziness or suffocation.
Germ cell mutagenicity	No mutagenic effects observed in laboratory test animals.
Carcinogenicity	IARC- No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive Toxicity	No data available

Additional Toxicological Information-

Substance extremely destructive to the tissue of mucus membrane and upper respiratory tract, eyes and skin.

12. Ecological Information

-12.1 Toxicity

-Aquatic toxicity:

Toxicity to Fish LC 50 , 96 Hrs	4.64-10 mg/l
Toxicity to Daphnia and other invertebrates (Daphnia Magna) EC50	No data available
Toxicity to algae (Activated sludge) EC50 , 30 min	10 mg/l (estimated)

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-12.2 Persistence and degradability

, Partly biodegradable in water

-12.3 Bioaccumulative potential

Log Pow = 2.6 indicate that Substance is not expected to accumulate in organisms..

-12.4 Mobility in soil No further relevant information available.

-Additional ecological information:

Water hazard class-3 , severe hazardous to water.

- ***12.5 Results of PBT and vPvB assessment***

. PBT/vPvB assessment not available as chemical safety assessment not conducted

- ***12.6 Other adverse effects*** : Not known based on available information.

13. Disposal Consideration

-13.1 Waste treatment methods

-Recommendation

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- ***Waste disposal key number:*** According to local/national regulations.

-***European waste catalogue:***
Waste disposal key numbers from EWC have to be assigned depending on origin and processing.
·- ***Uncleaned packagings:***
-***Recommendation:*** *Disposal must be made according to official regulations. Drum decontamination shall be done by initially rinsing with 5% aqueous acetic acid solution followed by water washing till neutral PH. It is strongly recommended to disfigure the container/drum before disposal.*

14. Transport Information

	Section	ADR	IATA	IMDG
UN Number	*14.1*	*2922*	*2922*	*2922*
UN Proper Shipping Name	*14.2*	*Corrosive liquid, toxic, N,O,S*	*Corrosive liquid, toxic, N,O,S*	*Corrosive liquid, toxic, N,O,S*
Transport Hazard Class (es)	*14.3*	*8*	*8*	*8*
Subsidiary Risk		*6.1*	*6.1*	*6.1*
Packing Group	*14.4*	*II*	*II*	*II*
Environmental Hazard/Marine Pollutant	*14.5*	*Yes* *(Symbol of fish and Tree)*	*Yes* *(Symbol of fish and Tree)*	*Yes* *(Symbol of fish and Tree)*
Special Precautions for User	*14.6*	*No data available*	*No data Available*	*Corrosive liquid*
ADR Tunnel restriction code		*2(E)*	*Not Applicable*	*Not Applicable*
Classification code		*CT1*	*Not Applicable*	*Not Applicable*
HIN		*86*	*Not Applicable*	*Not Applicable*
EMs		*Not Applicable*	*Not Applicable*	*F-A , S-B*
Transportation in Bulk according to Annex II of Marpol and IBC code	*14.7*	*Not Applicable*	*Not Applicable*	*Not Applicable*
Product Name		-	-	-
Ship Type		-	-	-
Pollution Category		-	-	-

15.Regulatory Information

· ***15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture***
· ***National regulations***

· ***Information about limitation of use:*** *Employment restrictions concerning young persons must be observed.*
· ***Decree to be applied in case of technical fault:***
Quantity limits according to "EC Seveso directive" should be observed.
· ***Water hazard class:*** *Water hazard class 3: severe hazardous for water*
· ***Other regulations, limitations and prohibitive regulations***
Observe restrictions on the marketing and use according to Annex XVII of Regulation (EC) No 1907/2006.
· ***15.2 Chemical safety assessment:*** *A Chemical Safety Assessment has not been carried out.*

16. Other Information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship

Dept Issuing MSDS- R&D

Only Representative : Global Product Compliance (Europe)AB, Lund , Sweden

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Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the
International Transport of Dangerous Goods by Rail)
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International
Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

Ref-

1) *Regulation (EC)No 1272/2008 of the European Parliament and of the Council*
2) *Guidance on the compilation Safety Data Sheet publish by ECHA Ver. 2.1 Feb 2014*
3) *European Chemicals Agency, http://echa.europa.eu/"*
4) *Toxnet HSDB*
5) *GESTIS Substance data base*