

Azodicarbonamide

Safety Data Sheet

According to Regulation (EU) 2015/830 (REACH Annex II)

Date of issue: 3/12/2018

Revision date: 3/12/2018

Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Substance
Trade name : ADC SL-AC14/AC18/AC22; SL-ACF02/ACF04/ACF05/ACF06/ACF08/ACF10; SL-AC XPE
Chemical name : C,C'-azodi(formamide)
EC Index-No. : 611-028-00-3
EC-No. : 204-650-8
CAS-No. : 123-77-3
REACH Reg. No. : 01-2119493056-35-0011

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Main use category : Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
Use in closed batch process (synthesis or formulation)
Use in closed, continuous process with occasional controlled exposure
Use as laboratory reagent
Polymer preparations and compounds
Foaming (blowing) agents

1.2.2. Uses advised against

Restrictions on use : No information available

1.3. Details of the supplier of the safety data sheet

Only representative : REACH24H CONSULTING GROUP
Address : Paramount Court, Corrig Road, Sandyford, Dublin 18, Ireland
E-mail : Info@reach24h.com

Supplier : JIANGXI SELON INDUSTRIAL CO., LTD.
Address : NO. 1 TASHAN INDUSTRIAL PARK, LEPING CITY, JIANGXI PROVINCE, CHINA
E-mail : ycflora@163.com
Phone : +86-798-6735018
Fax : +86-798-6806388

Importer :
Address :
Zip Code :
Phone :
Fax :
E-mail :

1.4. Emergency telephone number

+86-798-6735018 (In China, only office hours available.)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Respiratory sensitisation, Category 1 H334

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)

:



GHS08

Signal word (CLP)

: Danger

Hazard statements (CLP)

: H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statements (CLP)

: P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
P284 - [In case of inadequate ventilation] wear respiratory protection.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
C,C'-azodi(formamide) substance listed as REACH Candidate (Diazene-1,2-dicarboxamide (C,C'-azodi(formamide)))	(CAS-No.) 123-77-3 (EC-No.) 204-650-8 (EC Index-No.) 611-028-00-3	>= 97	Resp. Sens. 1, H334

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: If you feel unwell, seek medical advice (show directions for use or safety data sheet if possible).
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing; Give oxygen or artificial respiration if necessary; If you feel unwell, seek medical advice
First-aid measures after skin contact	: Wash skin with plenty of water and take off contaminated clothing; If skin irritation or rash occurs: Get medical advice/attention; Wash contaminated clothing before reuse
First-aid measures after eye contact	: Rinse cautiously with water for several minutes while holding the eyelids wide open; Remove contact lenses, if present and easy to do. Continue rinsing If eye irritation persists: Get medical advice/attention
First-aid measures after ingestion	: If swallowed, rinse mouth; Do not induce vomiting; Give nothing or a little water to drink; Never give anything by mouth to an unconscious person; If you feel unwell, seek medical advice;

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

Potential health effects are as follow:

Eye Contact:	: Redness. Pain.
Skin Contact:	: Redness.
Inhalation:	: May cause allergy or asthma symptoms or breathing difficulties if inhaled. Cough. Headache. Shortness of breath. Sore throat. Wheezing. Fatigue. Cramps.
Ingestion: :	: Not available.

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

Treat symptomatically.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Unsuitable extinguishing media : No information available

5.2. Special hazards arising from the substance or mixture

- Hazardous decomposition products in case of fire : Gives off irritating or toxic fumes (or gases) in a fire.
Special hazardous decomposition products:
Carbon monoxide and carbon dioxide, Nitrogen oxides (NOx), Hydrogen cyanide (HCN)

5.3. Advice for firefighters

- Precautionary measures fire : Eliminate every possible source of ignition. Keep container tightly closed and away from heat, sparks and flame.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
- Other information : Ensure adequate ventilation, especially in confined areas. Evacuate personnel to a safe area. Avoid contact with skin, eyes and inhalation of vapors. Move containers from fire area if it can be done without personal risk. Cool tanks/drums with water spray/remove them into safety. Stay upwind.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : Ventilate spillage area. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes. Ensure adequate ventilation, especially in confined areas. Remove all sources of ignition. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
- Emergency procedures : Avoid breathing dust/fume/gas/mist/vapours/spray. Stop leak if safe to do so. Evacuate personnel to safe areas. Avoid contact with skin and eyes.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- For containment : Collect spillage.
- Methods for cleaning up : Sweep spilled substance into sealable containers; if appropriate, moisten first to prevent dusting. Carefully collect remainder, and then remove to safe place.
- Other information : Dispose of materials or solid residues at an authorized site. Personal protection: P2 filter respirator for harmful particles.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Use only in a well ventilated area. Minimize dust generation and accumulation. Avoid breathing dust, vapor, mist, or gas. Wash clothing before reuse. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Use spark-proof tools and explosion proof equipment. Keep ignition sources away - Do not smoke.
- Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat. Keep locked up and out of reach of children. Store in accordance with local regulations

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

C,C'-azodi(formamide) (123-77-3)

DNEL/DMEL (Workers)

Long-term - systemic effects, dermal 14.03 mg/kg bodyweight/day

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C,C'-azodi(formamide) (123-77-3)

Long-term - systemic effects, inhalation

0.5 mg/m³

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour :	Yellowish
Odour :	Odourless
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 204 °C at 101.3 kPa
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: 0.00000002 Pa at 25 °C
Relative vapour density at 20 °C	: No data available
Relative density	: 1.61 at 20 °C
Solubility	: Water: 33 mg/l at 25 °C
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties :	Non explosive
Oxidising properties	: No
Explosive limits	: No data available
Surface tension	: 72 mN/m at 20°C and 30 mg/L

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

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10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid contact with Incompatible materials

10.5. Incompatible materials

Strong oxidizing agents, strong acids, strong bases, heavy metal salts.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

C,C'-azodi(formamide) (123-77-3)	
LD50 Oral rat	5000 mg/kg bw
LC50 (4 h) inhalation: dust rat	0.52 mg/L
LD50 Dermal rabbit	2000 mg/kg bw

Skin corrosion/irritation : No adverse effect observed (not irritating)

Serious eye damage/irritation : No adverse effect observed (not irritating)

Respiratory or skin sensitisation : Skin sensitisation: No adverse effect observed (not sensitising)

Respiratory sensitisation: Adverse effect observed (sensitising)

Germ cell mutagenicity : No adverse effect observed (negative)

Carcinogenicity : Not classified

Reproductive toxicity : No effect on reproduction has been observed in the available studies at the highest doses tested.

C,C'-azodi(formamide) (123-77-3)	
NOAEL	1000 mg/kg bw/day

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Acute aquatic toxicity : Not classified

Chronic aquatic toxicity : Not classified

C,C'-azodi(formamide) (123-77-3)	
LC50 fish 96h	50 mg/L
EC50 Daphnia 24h	12 mg/L
EC50 Daphnia 48h	11 mg/L
EC50 algae 72h	36 mg/L
NOEC chronic freshwater invertebrates	2.89 mg/L

12.2. Persistence and degradability

C,C'-azodi(formamide) (123-77-3)	
Biodegradation in water	Under test conditions no biodegradation observed

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

P not vP, not B/vB.

12.6. Other adverse effects

No additional information available

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
3242 3242	3242		3242	3242
14.2. UN proper shipping name				
AZODICARBONAMIDE AZODI CARBONAMIDE Azodicarbonamide			AZODICARBONAMIDE	AZODICARBONAMIDE
Transport document description				
UN 3242 AZODICARBONAMIDE, 4.1, II, (D)	UN 3242 AZODICARBONAMIDE, 4.1, II	UN 3242 Azodicarbonamide, 4.1	UN 3242 AZODICARBONAMIDE, 4.1, II	UN 3242 AZODICARBONAMIDE, 4.1, II
14.3. Transport hazard class(es)				
4.1 4.1 4.1			4.1	4.1
		Not applicable		
14.4. Packing group				
II II Not		applicable	II	II
14.5. Environmental hazards				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available				

14.6. Special precautions for user

- Overland transport

Classification code (ADR) : SR1
Special provisions (ADR) : 215, 638
Limited quantities (ADR) : 1kg
Excepted quantities (ADR) : E0
Packing instructions (ADR) : P409
Mixed packing provisions (ADR) : MP2
Portable tank and bulk container instructions (ADR) : T3
Portable tank and bulk container special provisions (ADR) : TP33
Vehicle for tank carriage : AT
Transport category (ADR) : 2
Special provisions for carriage - Loading, unloading and handling (ADR) : CV14
Special provisions for carriage - Operation (ADR) : S24
Hazard identification number (Kemler No.) : 40
Orange plates :



Tunnel restriction code (ADR) : D
EAC code : 1Y

- Transport by sea

Special provisions (IMDG) : 215
Limited quantities (IMDG) : 500g
Excepted quantities (IMDG) : E0

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Packing instructions (IMDG)	: P409
Tank instructions (IMDG)	: T3
Tank special provisions (IMDG)	: TP33
EmS-No. (Fire)	: F-J
EmS-No. (Spillage)	: S-G
Stowage category (IMDG)	: D
Segregation (IMDG)	: SG17, SG35, SG36
Properties and observations (IMDG)	: Yellow or orange powder. Insoluble in water. Heat may cause exothermic decomposition, producing carbon monoxide (a toxic and flammable gas) and nitrogen. May explode if involved in a fire under confined conditions. Addition of activators (e.g. zinc compounds) may result in a decrease of thermal stability and/or a change in explosive properties.

- Air transport

PCA Limited quantities (IATA)	: Forbidden
PCA limited quantity max net quantity (IATA)	: Forbidden
PCA packing instructions (IATA)	: Forbidden
PCA max net quantity (IATA)	: Forbidden
CAO packing instructions (IATA)	: Forbidden
CAO max net quantity (IATA)	: Forbidden
Special provisions (IATA)	: A60
ERG code (IATA)	: 3L

- Inland waterway transport

Classification code (ADN)	: SR1
Special provisions (ADN)	: 215, 638
Limited quantities (ADN)	: 1 kg
Excepted quantities (ADN)	: E0
Equipment required (ADN)	: PP
Number of blue cones/lights (ADN)	: 0

- Rail transport

Classification code (RID)	: SR1
Special provisions (RID)	: 215, 638
Limited quantities (RID)	: 1kg
Excepted quantities (RID)	: E0
Packing instructions (RID)	: P409
Mixed packing provisions (RID)	: MP2
Portable tank and bulk container instructions (RID)	: T3
Portable tank and bulk container special provisions (RID)	: TP33
Transport category (RID)	: 2
Special provisions for carriage – Packages (RID)	: W1
Colis express (express parcels) (RID)	: CE10
Hazard identification number (RID)	: 40

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Diazene-1,2-dicarboxamide (C,C'-azodi(formamide)) is on the REACH Candidate List

C,C'-azodi(formamide) is not on the REACH Annex XIV List

15.1.2. National regulations

Germany

VwVwS Annex reference : Water hazard class (WGK) 1, low hazard to waters (KBwS-Beschluss; ID No. 1354)

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12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed
SZW-lijst van mutagene stoffen : The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

Denmark

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Issue date : 12-Mar-2018
Revision date : 12-Mar-2018
Full text of H- and EUH-phrases
H334 : May cause allergy or asthma symptoms or breathing difficulties if inhaled

Key or legend to abbreviations and acronyms used in the safety data sheet

ADR : European Agreement Concerning the International Carriage of Dangerous Goods by Road
IMDG : International Maritime Dangerous Goods
IATA : International Air Transport Association
ADN : European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterway
RID : Regulations Concerning the International Carriage of Dangerous Goods by Rail
PBT : Persistent, Bioaccumulative and Toxic
vPvB : Very Persistent and Very Bioaccumulative
DNEL : Derived No Effect Level
PNEC : Predicted No Effect Concentration
LC50 : Lethal Concentration 50
LD50 : Lethal Dose 50
EC50 : Effective Concentration 50
TWA : Time Weighted Average
STEL : Short Term Exposure Limit

Key literature references and sources for data

ECHA: <http://echa.europa.eu/>
IFA GESTIS: [http://gestis-en.itrust.de/nxt/gateway.dll?f=templates\\$fn=default.htm\\$vid=gestiseng:sdbeng](http://gestis-en.itrust.de/nxt/gateway.dll?f=templates$fn=default.htm$vid=gestiseng:sdbeng)
HSDB: <http://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>
ICSC: <http://www.ilo.org/dyn/icsc/showcard.home>
eChemPortal: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en
NITE-CHRIP: http://www.nite.go.jp/en/chem/chrip/chrip_search/srhInput

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product