

**HPL Additives Limited**

SAFETY DATA SHEET

In Accordance with OSHA 29 CFR 1910.1200 HCS

MIKROFINE® HP 340

1 IDENTIFICATION

Product Identifier

Trade Name : MIKROFINE® HP 340
Substance Name : C,C'-azodi(formamide)
CAS No. : 123-77-3

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

Identified uses : Chemical blowing agent

Details of the supplier of the safety data sheet

Manufacturer/Supplier : 5th Floor, Block A, Vatika Mindscapes,
12/3, Main Mathura Road, Faridabad - 121003,
Haryana, India

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Prepared by : Product Compliance and Regulatory Affairs Department

Emergency telephone number

Emergency Phone # : +91-9910486232

2 HAZARD(S) IDENTIFICATION

Classification of the substance or mixture

Classification according to Globally Harmonized System(GHS)

Respiratory sensitization (Category 1); H334

Label element

Labelling according to the GHS

Pictogram

:



Signal word

: Danger

HAZARD STATEMENT(S)

H334

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

PRECAUTIONARY STATEMENT(S)

Prevention

P210

: Keep away from heat/sparks/open flames/hot surfaces. - No Smoking

P234

: Keep only in original container

P261

: Avoid breathing dust/fume

P285

: In case of inadequate ventilation wear respiratory protection

Response

P304 +P341

: IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing

P342 +P311

: If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician

P370 +P378

: In case of fire: Use CO₂, powder or water spray for extinction

Storage

P411

: Store at temperatures. Not exceeding 50°C

P403 + P233

: Store in a well-ventilated place. Keep container tightly closed

Disposal

P501

: Dispose of contents/container in accordance with local/regional/ national/international regulations

Other hazards

: None

3 COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Chemical Characterization	CAS number	Identification name	Weight % content (or range)	EC Number
Mixture	123-77-3	C,C'-azodi(formamide)	> 92	204-650-8
	--	Proprietary	< 8	--

4 FIRST AID MEASURES

Description of first aid measures

- | | | |
|------------|---|---|
| Eye | : | Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor |
| Skin | : | Generally the product does not irritate the skin, but in any case, wash thoroughly with water and soap. |
| Ingestion | : | Do not induce vomiting. Rinse mouth and then drink water. Obtain medical attention. |
| Inhalation | : | Take patient into a well-ventilated area or supply fresh air, consult doctor in case of complaints. |

Most important symptoms and effects, both acute and delayed

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Indication of any immediate medical attention and special treatment needed

No information available

5 FIRE FIGHTING MEASURES

Extinguishing Media

- | | | |
|--|---|--|
| Suitable Extinguishing Media | : | CO ₂ , powder or water spray. Fight larger fires with water spray or alcohol resistant foam |
| Unsuitable Extinguishing Media | : | Water with full jet (for safety reasons) |
| Special hazards arising from the substance or mixture | : | In the event of a fire, toxic and combustible gases can be formed. If a fire breaks out nearby, pressure build up and danger of bursting are possible. In the case of exothermal disintegration ('characteristic' heavy white smoke development) and a nearby fire, spray or douse intensively with a lot of water immediately to guarantee quick cooling. |
| Advice for firefighters | : | Dust mask, gloves and overall, Self-contained breathing apparatus must be worn during fire fighting. |
| Other Information | : | Azodicarbonamide will only burn if it is exposed to a flame and is self extinguishing when the flame is removed. |

6 ACCIDENTAL RELEASE MEASURES

- | | | |
|--|---|--|
| Personal precautions, protective equipment and emergency procedures | : | Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Keep away from ignition sources. Wear protective clothing. Evacuate personnel to safe areas. Avoid breathing dust. |
| Environmental precautions | : | Prevent contamination of soil, drain and surface water. Product should not be allowed to enter into local drainage or sewer systems. Spillage should be removed, Preferably by vacuum cleaner, taking care to avoid creating a dust cloud. |
| Methods and materials for containment and cleaning up | : | Pick up mechanically, by vacuum cleaner or cover with inert material and sweep up. Stored in labeled containers. Dispose of the material collected according to regulations. Dispose contaminated material as waste according to disposal consideration. |
| Reference to other sections | : | For disposal see section 13.
For safe handling see section 7.
For PPE see section 8. |

7 HANDLING AND STORAGE

Precautions for safe handling	: Keep away from heat and direct sunlight. Prevent formation of dust. Any unavoidable deposit of dust must be regularly removed. Use appropriate industrial vacuum cleaners or central vacuum systems for dust removal. Ensure good ventilation/exhaustion at the workplace. Do not raising dust. Do not breathe dust and thermal decomposition products. Avoid contact with eyes, skin and clothing. -
Information about fire and explosion protection	: Keep ignition sources away. Do not smoke. Protect against electrostatic charges. Dust can combine with air to form an explosive mixture. Keep respiratory protective device available.
Conditions for safe storage, including any incompatibilities	: Store only in the original receptacle. Store in a cool location. Keep at temperature not exceeding 50°C
Information about storage in one common storage facility	: Do not store together with reducing agents, heavy-metal compounds, acids and alkalis (with which it react).
Further information about storage conditions	: Protect from heat and direct sunlight. Store in cool, dry conditions in well sealed receptacles. Protect from humidity and water. Packaging containing Azodicarbonamide shouldn't be stacked more than two pallets high or compaction may occur.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameter	: Occupational exposure standards (HSE / MAK / ACGIH) ACGIH TLV: TWA 5 mg/m ³ NIOSH REL: TWA 5 mg/m ³
Exposure controls General protective and hygienic measures	: In general ensure good personal hygiene. During processing, ensure efficient ventilation in the working area. Wash hands before breaks and at the end of work.Keep away from foodstuffs, beverages and feed.
Respiratory Protection	: Dust mask.Good ventilation is desirable and respiratory protection during dust formation.In case of brief exposure or low pollution use respiratory filter device (filter P2). In case of intensive or longer exposure, use self-contained respiratory protective device
Hand protection	: Protective gloves.The glove material has to be impermeable and resistant to the product/ the substance/ the preparation
Eye protection	: Wear appropriate protective eyeglasses or chemical safety goggles.
Skin Protection	: Wear appropriate protective gloves , protective clothing to prevent skin exposure and by use of skin-protecting agents
Body Protection	: Wear protective clothing to prevent skin exposure

9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

a) Appearance	:	Form : Solid powder Colour : Yellow
b) Odour	:	Odourless
C) Odour Threshold	:	Not Applicable
d) pH (5% aq. Suspension)	:	6.5-7.5
e) Melting point/freezing point	:	Substance decomposes
f) Initial boiling point and boiling range	:	Not Applicable
g) Flash point	:	Not Applicable
h) Evaporation rate	:	No data available
i) Flammability (solid, gas)	:	No data available
j) Upper/lower flammability or explosive limits	:	No data available
k) Vapour pressure	:	No data available
l) Vapour density	:	No data available
m) Relative density (gm/cc)	:	-1.66
n) Water solubility	:	Insoluble in water
O) Partition coefficient : octanol/water	:	No data available
p) Autoignition temperature	:	No data available
q) Decomposition temperature (°C)	:	186-192
r) Viscosity	:	No data available
s) Oxidising properties	:	No data available
Other information	:	No data available

10 STABILITY AND REACTIVITY

Reactivity	:	No data available
Chemical stability	:	Stable under ordinary conditions
Possibility of hazardous reactions	:	No data available
Condition to avoid	:	Thermal decomposition /conditions to be avoided: No decomposition if used and stored according to specifications. To avoid to store close to alkalis. To avoid thermal decomposition do not overheat.
Incompatible material	:	Alkalis. Dangerous reactions with strong Reducing agent. Exothermic reaction. Risk of dust explosion
Dangerous decomposition products	:	CO, NH ₃

11 TOXICOLOGICAL INFORMATION

Information of Toxicological effect	
Acute toxicity	: LD 50 (Oral)- rat > 6800 mg/Kg LD 50 (Dermal) rabbits >2000mg/kg LC 50 (rats) >200 mg/l(hr)
Skin corrosion/irritation	: May be mildly irritating to skin
Serious eye damage/eye irritation	: May be mildly irritating to eyes
Respiratory or skin sensitization	: Inhalation of dust can cause lung sensitization.
Germ cell mutagenicity	: Identified as a mutagen in bacterial system, but it was not mutagenic in mammalian cell <i>in vitro</i> test systems or in two mammalian assays <i>in vivo</i> using bone marrow.

Reproductive toxicity	: No data available
Specific target organ toxicity - single exposure	: No data available
Specific target organ toxicity - repeated exposure	: No data available
Aspiration hazard	: No data available

Potential health effects

Inhalation	: May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion	: May be harmful if swallowed.
Skin	: Toxic if absorbed through skin. May cause skin irritation.
Eyes	: May cause eye irritation.
Signs and Symptoms of Exposure	: To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

Carcinogenicity

IARC:	: No component of this product presents at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH	: No component of this product presents at levels greater than or equal to 0.1% is identified as a Carcinogen or potential carcinogen by ACGIH.
NTP:	: No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA:	: No component of this product presents at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

12 ECOLOGICAL INFORMATION

Toxicity	: Fathead minnow LC50 (48 hr) > 50mg/l (<i>Pimephales promelas</i>) Water flea EC50 (48 hr) 11mg/l (<i>Daphnia magna</i>)
Persistence and degradability	: Biodegradability (30 days).....around 70 %
Bioaccumulative potential	: LC50 (rats) > 200 mg/l (hr)
Mobility in soil	: immobilization
Results of PBT and vPvB assessment	: Not carried out
Other adverse effects	: No data available

13 DISPOSAL CONSIDERATIONS

Waste treatment methods	
Product	: Recommendation- Must not be disposed together with household garbage. Do not allow product to reach sewage system. After prior treatment product has to be disposed of in an incinerator for hazardous waste adhering to the regulations pertaining to the disposal of particularly hazardous waste. Recover or recycle if possible, otherwise perform incineration.
Contaminated packaging	: Non contaminated packaging may be recycled.-Empty contaminated packaging and These may be recycled after thorough and proper cleaning. Packaging that may not be cleaned have to be disposed of in the same manner as the product. Disposal must be made according to official regulations.

14 TRANSPORTATION INFORMATION

This product is regulated by ADR/RID/IMDG as follows:

LAND TRANSPORT (ADR/RID)

UN Number : 3242
 Class : 4.1 (SR 1)
 Packaging group : II
 Labels : 4.1

MARINE TRANSPORT(IMDG)

UN Number : 3242
 UN proper shipping name : AZODICARBONAMIDE
 Chemical name : AZODICARBONAMIDE
 Transport hazard class(es) : 4.1
 Packaging group : II
 EmS number : F-J, S-G
 Labels : 4.1
 Marine pollutant : No
 Transport in bulk according to Annex II of
 MARPOL73/78 and the IBC code : N/A
 Air transport ICAO/TI and IATA/DGR: : Air Transport not allowed

15 REGULATORY INFORMATION

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

SARA :
 Section 311/312 Hazards : Fire Hazard, Acute Health Hazard
 Section 313 component : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Federal and State Regulations : TSCA 8(b) inventory: Azodicarbonamide
 OSHA : Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

EINECS : This product is on the European Inventory of Existing Commercial Chemical Substances (EINECS No. 204-650-8).

Canada : Listed on Canadian Domestic Substance List (DSL).
 China : Listed on National Inventory.
 Japan : Listed on National Inventory (ENCS).
 Korea : Listed on National Inventory (KECI).
 Philippines : Listed on National Inventory (PICCS).
 Australia : Listed on AICS

16 OTHER INFORMATION

Health:2	Flammability:3	Reactivity:1	PPI: X
0(HMIS)	:	No hazard	
1(HMIS)	:	Slight hazard	
2(HMIS)	:	Moderate hazard	
3(HMIS)	:	Serious hazard	
4(HMIS)	:	Severe hazard	
X(HMIS)	:	Personal protection rating to be supplied by user depending on use conditions.	

Information which has been added, deleted or revised

This safety data sheet is drawn up to comply with the requirements of OSHA Hazard communication standard.

This document contains important information to ensure the safe storage, handling and use of this product. The information in this document should be brought to the attention of the person in your organisation responsible for advising on safety matters.

The information given in this document is only a recommendation believed to be reliable and is given in good faith but without warranty. Our advice does not release users from the obligation of checking its validity and to test our products as to their suitability for the intended use. Specified properties mentioned in this document are based on our historical production performance and these properties or the whole document is subject to change without any prior notice at our sole discretion. We are under no obligation to call back earlier issued documents.