## According to Regulation (EC) No 1907/2006, Annex II,

### Amended by Regulation (EU) No 453/2010, According to Regulation (EC) No 1272/2008

Adipohydrazide

Printing date: 21/01/2013 SDS Record Number: CSSS-TCO-010-112518
Version 1.1 Revision date: 21/01/2013

#### Section 1 Identification of the substance and of the company/undertaking

#### 1.1 Product identifier:

Identification on the label/Trade name: Adipohydrazide Additional identification: Not available

Identification of the product: CAS# 1071-93-8; EC# 213-999-5

Index Number: Not available REACH registration No.: Not available

#### 1.2 Relevant identified uses of the substance and uses advised against:

#### 1.2.1 Identified uses:

Mainly used as epoxy powder coating curing agents and coating additives, metal deactivation agent and other polymer additives and water treatment agent.

#### 1.2.2 Uses advised against:

Not available.

#### 1.3 Details of the supplier of the safety data sheet:

Supplier(Only representative):

Supplier(Manufacturer): Lishui Nanming Chemical Co.,Ltd

Address: NO.19 Tongji Road Shuige industrial zone, Lishui city Zhejiang, China

Contact person(E-mail): Yunyong Wu(wyynmchem@163.com)

Telephone: 86-578-2697826 Fax: 86-578-2126428

#### 1.4 Emergency telephone Number:

86-578-2697826 Monday to Friday (8:30am to 17:00pm, Beijing time)

Available outside office hours? YES NO X

#### Section 2 Hazards Identification

#### 2.1 Classification of the substance or mixture

#### 2.1.1 Classification:

The substance is classified as following according to 67/548/EEC and REGULATION (EC) No 1272/2008:

REGULATION (EC) No 1272/2008			
Hazard classes/Hazard categories Hazard statement			
N/A	N/A		

For full text of H- phrases: see section 2.2.

67/548/EEC			
Hazards characteristics	R-Phrases		
N/A	N/A		

For full text of R- phrases: see section 16.

#### 2.1.2 The most important adverse effects

#### 2.1.2.1 The most important adverse physicochemical effects:

Not applicable.

#### 2.1.2.2 The most important adverse human health effects:

Not applicable.

#### 2.1.2.3 The most important adverse environmental effects:

Not applicable.

#### 2.2 label elements

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Hazard Pictograms: No hazard pictogram is used.

Signal Word(S): No signal word is used.

Hazard Statement:Not applicable.Precautionary Statement:Not applicable.

2.3 Other hazards

Not available (PBT, vPvB, Substance is an endocrine disruptor etc.)

#### Section 3 Composition/information on ingredients

Substance/Mixture: Substance

Ingredient(s):

Chemical Name	Registration No.	CAS No.	EC No.	Concentration
Adipohydrazide	N/A	1071-93-8	213-999-5	≥98.0%

#### Section 4 First aid measures

#### 4.1 Description of first aid measures:

In all cases of doubt, or when symptoms persist, seek medical attention.

#### 4.1.1 In case of inhalation:

Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.

#### 4.1.2 In case of skin contact:

Remove contaminated clothing and shoes. Wash clothing before reuse. Flush skin with plenty of soap and water. If irritation persists, get medical attention.

#### 4.1.3 In case of eyes contact:

Flush eyes with plenty of water for at least 15 minutes. If irritation persists, get medical attention.

#### 4.1.4 In case of ingestion:

Rinse mouth and drink plenty of water. Induce vomiting. If you feel unwell, get medical attention.

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

The product is not classified as harmful to human health effect.

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

If skin irritation or rash occurs, get medical advice/attention.

#### Section 5 Fire-Fighting measures

#### 5.1 Extinguishing media:

Suitable extinguishing media: Water, carbon dioxide, dry chemical powder, foam.

Unsuitable extinguishing media: Not available.

#### 5.2 Special hazards arising from the substance or mixture

In case of fire, emits carbon oxides, nitrogen oxides.

#### 5.3 Advice for fire-fighters:

Wear self-contained breathing apparatus and full protective clothing.

#### Section 6 Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures:

#### 6.1.1 For non-emergency personnel:

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Use personal protective equipment. Ensure good ventilation/exhaustion at the workplace. Avoid breathing dust. Avoid contact with eyes, skin and clothing.

#### 6.1.2 For emergency responders:

Wear an appropriate NIOSH/MSHA approved respirator if mist, vapor or dust is generated.

#### 6.2 Environmental Precautions:

Do not allow material to be released to the environment without proper governmental permits

#### 6.3 Methods for Containment and Cleaning up:

Sweep up and place in closed containers for disposal. Avoid dust. Ensure ventilation.

#### 6.4 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 information on disposal.

#### 6.5 Additional information:

Not applicable.

#### Section 7 Handling and storage

#### 7.1 Precautions for safe handling:

#### 7.1.1 Protective measures:

Use personal protective equipment. Avoid breathing dust. Avoid contact with eyes, skin and clothing. Ensure good ventilation/exhaustion at the workplace. Wash thoroughly after handling.

#### 7.1.2 Advice on general occupational hygiene:

Do not eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.

#### 7.2 Conditions for safe storage, including any incompatibilities:

Store in a dry, well-ventilated place. Keep container closed when not in use. Store in a tightly closed container. Keep away from incompatible materials.

#### 7.3 Specific end use(s):

Not applicable.

#### Section 8 Exposure control/personal protection

#### 8.1 Control parameters:

- 8.1.1 Occupational exposure limits: Not available.
- 8.1.2 Additional exposure limits under the conditions of use: Not available.
- 8.1.3 DNEL/DMEL and PNEC-Values: Not available.

#### 8.2 Exposure controls

#### 8.2.1Appropriate engineering controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

#### 8.2.2 Individual protection measures, such as personal protective equipment:

Eye/face protection Wear appropriate goggles.

Hand protection Wear appropriate protective gloves.

Body protection Wear appropriate protective clothing and boots.

Respiratory protection Wear approved dust mask.

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Soluble

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Thermal hazards Wear suitable protective clothing to prevent heat.

#### 8.2.3 Environmental exposure controls:

Water solubility (g/l) at 20°C:

Avoid discharge into the environment.

According to local regulations, Federal and official regulations.

#### Section 9 Physical and chemical properties

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#### 9.1 Information on basic physical and chemical properties

Appearance: Solid, powder Colour: White Odour: Not available Odour threshold: Not available :Ha Not available Melting point/range (°C): 179 - 182 °C Boiling point/range (°C): Not available > 150 °C Flash point (°C): Evaporation rate: Not available Flammability (solid, gas); Not available Ignition temperature (°C): Not available Upper/lower flammability/explosive limits: Not available Vapour pressure (20°C): Not available Vapour density: Not available Relative Density (25°C): Not available Not available Bulk density (kg/m3):

Log Pow=-2.41 n-Octanol/Water (log Po/w): Auto-ignition temperature: 360 °C Decomposition temperature: Not available Viscosity, dynamic (mPa s): Not available Explosive properties: Non-explosive Oxidising properties: Non-oxidising Molecular formula:  $C_6H_{14}N_4O_2$ Molecular weight: 174.2

9.2. Other information:

Fat solubility(solvent– oil to be specified) etc:

Surface tension:

Dissociation constant in water(pKa):

Oxidation-reduction Potential:

Not available

Not available

#### Section 10 Stability and reactivity

#### 10.1 Reactivity:

The substance is stable under normal storage and handling conditions.

#### 10.2 Chemical stability:

Stable at room temperature in closed containers under normal storage and handling conditions.

#### 10.3 Possibility of hazardous reactions:

No dangerous reactions known.

#### 10.4 Conditions to avoid:

Incompatible materials.

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Not available

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#### 10.5 Incompatible materials:

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Strong oxidizing agents, Strong bases.

#### 10.6 Hazardous decomposition products:

Carbon oxides, nitrogen oxides.

#### Section 11 Toxicological information

#### 11.1 Toxicokinetics, metabolism and distribution

Non-human toxikological data: Not available

#### 11.2 Information on toxicological effects

Acute toxicity:

LD50(Oral, Rat): Not available LD50(Dermal, Rabbit): Not available LC50(Inhalation, Rat):

Skin corrosion/Irritation: Not classified Serious eye damage/irritation: Not classified

Respiratory or skin sensitization: Not classified

Germ cell mutagenicity: Not classified

Carcinogenicity: Not classified

Reproductive toxicity: Not classified Not classified STOT- single exposure:

STOT-repeated exposure: Not classified

Aspiration hazard: Not classified

#### Section 12 Ecological information

#### Toxicity:

Acute t	toxicity	Time	Species	Method	Evaluation	Remarks
LC50	N/A	96h	Fish	OECD 203	N/A	N/A
EC50	N/A	48h	Daphnia	OECD 202	N/A	N/A
EC50	N/A	72h	Algae	OECD 201	N/A	N/A

Persistence and degradability: Not available. Bioaccumulative potential: Not available. Not available. Mobility in soil: Results of PBT&vPvB assessment: Not available. Not available. Other adverse effects:

#### Section 13 Disposal considerations

#### 13.1 Waste treatment methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

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#### 13.2 Product / Packaging disposal:

If empty container retains product residues, all label precautions must be observed. Return for reuse or dispose according to national or local regulations.

#### Section 14 Transport information

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	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN-Number:	Not regulated	Not regulated	Not regulated
UN Proper shipping name:	Not regulated	Not regulated	Not regulated
Transport hazard Class:	Not regulated	Not regulated	Not regulated
Packaging group:	Not regulated	Not regulated	Not regulated
Environmental hazards:	No	No	No
Special precautions for user:	See section 2.2	See section 2.2	See section 2.2
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not regulated	Not regulated	Not regulated

#### Section 15 Regulation information

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

**Relevant information regarding authorization:**Not applicable. **Relevant information regarding restriction:**Not applicable.

Other EU regulations: Employment restrictions concerning young person must be

observed. For use only by technically qualified individuals.

Other National regulations:

Not applicable

Chemical Safety Assessment has been carried out?

YES

NO X

#### Section 16 Other information

**16.1 Indication of changes** Version 1.1 Amended by EU No 453/2010

16.2 Relevant R- phrases (number and full text):

Not applicable.

16.3 Training instructions:

Not applicable.

#### 16.4 Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

#### 16.5 Notice to reader:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this 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 not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.