TCI (Shanghai) DEVELOPMENT CO., LTD.

1,9-Nonanedicarboxylic Acid

**Revision number: 1** 

Revision date: 12/01/2010

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# SAFETY DATA SHEET

### 1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Product name: **Product code:** Company: Address: **Responsible Department:** Telephone: Fax: e-mail: **Revision number:** 

1,9-Nonanedicarboxylic Acid N0333 TCI (Shanghai) DEVELOPMENT CO., LTD. No.96 Pu Gong Road, Shanghai Chemical Industry Park, Shanghai 201507 China Sales Department +86-(0)21-67121386 +86-(0)21-67121385 sales@tcishanghai.com.cn 1

2. HAZARDS IDENTIFICATION **Classification of the GHS PHYSICAL HAZARDS HEALTH HAZARDS** Skin corrosion/irritation Serious eye damage/eye irritation **ENVIRONMENTAL HAZARDS GHS** label elements Pictograms or hazard symbols



Signal word Hazard statement

**Precautionary statements** [Prevention]

Not classified

Category 2 Category 2A Not classified

Warning Causes skin irritation Causes serious eye irritation

Wash hands thoroughly after handling. Wear protective gloves/eye protection/face protection. [Response] IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN: Gently wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

### **3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance/mixture:	Substance
Component(s):	1,9-Nonanedicarboxylic Acid
Percent:	>97.0%(GC)(T)
CAS Number:	1852-04-6
Synonyms:	Nonamethylenedicarboxylic Acid, Undecanedioic Acid
Chemical Formula:	$C_{11}H_{20}O_4$

## 4. FIRST AID MEASURES

Inhalation:

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

4. FIRST AID MEASURES		
Skin contact:	Remove/Take off immediately all contaminated clothing. Gently wash with plenty of	
Eye contact:	soap and water. If skin irritation or rash occurs: Get medical advice/attention. Rinse cautiously with water for several minutes. Remove contact lenses, if present	
	and easy to do. Continue rinsing. If eye irritation persists: Get medical	
	advice/attention.	
Ingestion:	Get medical advice/attention if you feel unwell. Rinse mouth.	
Protection of first-aiders:	A rescuer should wear personal protective equipment, such as rubber gloves and air-	
	tight goggles.	
5. FIRE-FIGHTING MEASURES		
Suitable extinguishing	Dry chemical, foam, water spray, carbon dioxide.	
media: Specific methods:	Fire-extinguishing work is done from the windward and the suitable fire-extinguishing	
Specific methods.	method according to the surrounding situation is used. Uninvolved persons should	
	evacuate to a safe place. In case of fire in the surroundings: Remove movable	
Special protective	containers if safe to do so. When extinguishing fire, be sure to wear personal protective equipment.	
equipment for firefighters:		
6. ACCIDENTAL RELEASE ME Personal precautions,	ASURES Use personal protective equipment. Keep people away from and upwind of spill/leak.	
protective equipment and	Entry to non-involved personnel should be controlled around the leakage area by	
emergency procedures:	roping off, etc.	
Environmental precautions Methods and materials for	: Prevent product from entering drains.	
containment and cleaning	Sweep dust to collect it into an airtight container, taking care not to disperse it. Adhered or collected material should be promptly disposed of, in accordance with	
up:	appropriate laws and regulations.	
7. HANDLING AND STORAGE Handling		
	Handling is performed in a well ventilated place. Wear suitable protective equipment.	
Handling	Prevent dispersion of dust. Wash hands and face thoroughly after handling.	
Handling Technical measures:	Prevent dispersion of dust. Wash hands and face thoroughly after handling. Use a local exhaust if dust or aerosol will be generated.	
Handling	Prevent dispersion of dust. Wash hands and face thoroughly after handling.	
<u>Handling</u> Technical measures: Advice on safe handling:	Prevent dispersion of dust. Wash hands and face thoroughly after handling. Use a local exhaust if dust or aerosol will be generated. Avoid contact with skin, eyes and clothing. Keep container tightly closed. Store in a cool and dark place.	
Handling Technical measures: Advice on safe handling: <u>Storage</u> Storage conditions:	Prevent dispersion of dust. Wash hands and face thoroughly after handling. Use a local exhaust if dust or aerosol will be generated. Avoid contact with skin, eyes and clothing. Keep container tightly closed. Store in a cool and dark place. Store away from incompatible materials such as oxidizing agents.	
Handling Technical measures: Advice on safe handling: <u>Storage</u>	Prevent dispersion of dust. Wash hands and face thoroughly after handling. Use a local exhaust if dust or aerosol will be generated. Avoid contact with skin, eyes and clothing. Keep container tightly closed. Store in a cool and dark place.	
Handling Technical measures: Advice on safe handling: <u>Storage</u> Storage conditions: Packaging material: 8. EXPOSURE CONTROLS / P	Prevent dispersion of dust. Wash hands and face thoroughly after handling. Use a local exhaust if dust or aerosol will be generated. Avoid contact with skin, eyes and clothing. Keep container tightly closed. Store in a cool and dark place. Store away from incompatible materials such as oxidizing agents. Law is followed. ERSONAL PROTECTION	
Handling Technical measures: Advice on safe handling: <u>Storage</u> Storage conditions: Packaging material:	Prevent dispersion of dust. Wash hands and face thoroughly after handling. Use a local exhaust if dust or aerosol will be generated. Avoid contact with skin, eyes and clothing. Keep container tightly closed. Store in a cool and dark place. Store away from incompatible materials such as oxidizing agents. Law is followed. ERSONAL PROTECTION Install a closed system or local exhaust as possible so that workers should not be	
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Handling   Technical measures:   Advice on safe handling:   Storage   Storage conditions:   Packaging material:   8. EXPOSURE CONTROLS / P   Engineering controls:   Personal protective equipm   Respiratory protection:	Prevent dispersion of dust. Wash hands and face thoroughly after handling. Use a local exhaust if dust or aerosol will be generated. Avoid contact with skin, eyes and clothing. Keep container tightly closed. Store in a cool and dark place. Store away from incompatible materials such as oxidizing agents. Law is followed. <b>ERSONAL PROTECTION</b> Install a closed system or local exhaust as possible so that workers should not be exposed directly. Also install safety shower and eye bath.	
Handling   Technical measures:   Advice on safe handling:   Storage   Storage conditions:   Packaging material:   8. EXPOSURE CONTROLS / P   Engineering controls:   Personal protective equipm   Respiratory protection:   Hand protection:	Prevent dispersion of dust. Wash hands and face thoroughly after handling. Use a local exhaust if dust or aerosol will be generated. Avoid contact with skin, eyes and clothing. Keep container tightly closed. Store in a cool and dark place. Store away from incompatible materials such as oxidizing agents. Law is followed. ERSONAL PROTECTION Install a closed system or local exhaust as possible so that workers should not be exposed directly. Also install safety shower and eye bath. Dust respirator. Follow local and national regulations. Protective gloves.	
Handling   Technical measures:   Advice on safe handling:   Storage   Storage conditions:   Packaging material:   8. EXPOSURE CONTROLS / P   Engineering controls:   Personal protective equipm   Respiratory protection:   Hand protection:   Eye protection:	Prevent dispersion of dust. Wash hands and face thoroughly after handling. Use a local exhaust if dust or aerosol will be generated. Avoid contact with skin, eyes and clothing. Keep container tightly closed. Store in a cool and dark place. Store away from incompatible materials such as oxidizing agents. Law is followed. <b>ERSONAL PROTECTION</b> Install a closed system or local exhaust as possible so that workers should not be exposed directly. Also install safety shower and eye bath. <b>Dust respirator.</b> Follow local and national regulations. Protective gloves. Safety glasses. A face-shield, if the situation requires.	
Handling   Technical measures:   Advice on safe handling:   Storage   Storage conditions:   Packaging material:   8. EXPOSURE CONTROLS / P   Engineering controls:   Personal protective equipm   Respiratory protection:   Hand protection:   Eye protection:	Prevent dispersion of dust. Wash hands and face thoroughly after handling. Use a local exhaust if dust or aerosol will be generated. Avoid contact with skin, eyes and clothing. Keep container tightly closed. Store in a cool and dark place. Store away from incompatible materials such as oxidizing agents. Law is followed. ERSONAL PROTECTION Install a closed system or local exhaust as possible so that workers should not be exposed directly. Also install safety shower and eye bath. Dust respirator. Follow local and national regulations. Protective gloves.	
Handling   Technical measures:   Advice on safe handling:   Storage   Storage conditions:   Packaging material:   8. EXPOSURE CONTROLS / P   Engineering controls:   Personal protective equipm   Respiratory protection:   Hand protection:   Eye protection:   Skin and body protection:   9. PHYSICAL AND CHEMICAL	Prevent dispersion of dust. Wash hands and face thoroughly after handling. Use a local exhaust if dust or aerosol will be generated. Avoid contact with skin, eyes and clothing. Keep container tightly closed. Store in a cool and dark place. Store away from incompatible materials such as oxidizing agents. Law is followed. <b>ERSONAL PROTECTION</b> Install a closed system or local exhaust as possible so that workers should not be exposed directly. Also install safety shower and eye bath. <b>Protective gloves.</b> Safety glasses. A face-shield, if the situation requires. Protective clothing. Protective boots, if the situation requires.	
Handling   Technical measures:   Advice on safe handling:   Storage   Storage conditions:   Packaging material:   8. EXPOSURE CONTROLS / P   Engineering controls:   Personal protective equipm   Respiratory protection:   Hand protection:   Eye protection:   Skin and body protection:   9. PHYSICAL AND CHEMICAL   Physical state (20°C):	Prevent dispersion of dust. Wash hands and face thoroughly after handling. Use a local exhaust if dust or aerosol will be generated. Avoid contact with skin, eyes and clothing. Keep container tightly closed. Store in a cool and dark place. Store away from incompatible materials such as oxidizing agents. Law is followed. ERSONAL PROTECTION Install a closed system or local exhaust as possible so that workers should not be exposed directly. Also install safety shower and eye bath. Install a closed system or local and national regulations. Protective gloves. Safety glasses. A face-shield, if the situation requires. Protective clothing. Protective boots, if the situation requires. PROPERTIES Solid	
Handling   Technical measures:   Advice on safe handling:   Storage   Storage conditions:   Packaging material:   8. EXPOSURE CONTROLS / P   Engineering controls:   Personal protective equipm   Respiratory protection:   Hand protection:   Eye protection:   Skin and body protection:   9. PHYSICAL AND CHEMICAL	Prevent dispersion of dust. Wash hands and face thoroughly after handling. Use a local exhaust if dust or aerosol will be generated. Avoid contact with skin, eyes and clothing. Keep container tightly closed. Store in a cool and dark place. Store away from incompatible materials such as oxidizing agents. Law is followed. <b>ERSONAL PROTECTION</b> Install a closed system or local exhaust as possible so that workers should not be exposed directly. Also install safety shower and eye bath. <b>Potective gloves.</b> Safety glasses. A face-shield, if the situation requires. Protective clothing. Protective boots, if the situation requires. <b>PROPERTIES</b> Solid crystal - powder White - Pale yellow	
Handling   Technical measures:   Advice on safe handling:   Storage   Storage conditions:   Packaging material:   8. EXPOSURE CONTROLS / P   Engineering controls:   Personal protective equipm   Respiratory protection:   Hand protection:   Eye protection:   Skin and body protection:   Skin and body protection:   Skin and body protection:   Odor:	Prevent dispersion of dust. Wash hands and face thoroughly after handling. Use a local exhaust if dust or aerosol will be generated. Avoid contact with skin, eyes and clothing. Keep container tightly closed. Store in a cool and dark place. Store away from incompatible materials such as oxidizing agents. Law is followed. ERSONAL PROTECTION Install a closed system or local exhaust as possible so that workers should not be exposed directly. Also install safety shower and eye bath. Protective gloves. Safety glasses. A face-shield, if the situation requires. Protective clothing. Protective boots, if the situation requires. PROPERTIES Solid crystal - powder White - Pale yellow No data available	
Handling   Technical measures:   Advice on safe handling:   Storage   Storage conditions:   Packaging material:   8. EXPOSURE CONTROLS / P   Engineering controls:   Personal protective equipm   Respiratory protection:   Hand protection:   Eye protection:   Skin and body protection:   Skin and body protection:   Odor:   Odor:   pH:	Prevent dispersion of dust. Wash hands and face thoroughly after handling. Use a local exhaust if dust or aerosol will be generated. Avoid contact with skin, eyes and clothing. Keep container tightly closed. Store in a cool and dark place. Store away from incompatible materials such as oxidizing agents. Law is followed. <b>ERSONAL PROTECTION</b> Install a closed system or local exhaust as possible so that workers should not be exposed directly. Also install safety shower and eye bath. <b>Pent</b> Dust respirator. Follow local and national regulations. Protective gloves. Safety glasses. A face-shield, if the situation requires. Protective clothing. Protective boots, if the situation requires. <b>PROPERTIES</b> Solid crystal - powder White - Pale yellow No data available	
Handling   Technical measures:   Advice on safe handling:   Storage   Storage conditions:   Packaging material:   8. EXPOSURE CONTROLS / P   Engineering controls:   Personal protective equipm   Respiratory protection:   Hand protection:   Eye protection:   Skin and body protection:   Skin and body protection:   Skin and body protection:   Olor:	Prevent dispersion of dust. Wash hands and face thoroughly after handling. Use a local exhaust if dust or aerosol will be generated. Avoid contact with skin, eyes and clothing. Keep container tightly closed. Store in a cool and dark place. Store away from incompatible materials such as oxidizing agents. Law is followed. <b>ERSONAL PROTECTION</b> Install a closed system or local exhaust as possible so that workers should not be exposed directly. Also install safety shower and eye bath. <b>Pent</b> Dust respirator. Follow local and national regulations. Protective gloves. Safety glasses. A face-shield, if the situation requires. Protective clothing. Protective boots, if the situation requires. <b>PROPERTIES</b> Solid crystal - powder White - Pale yellow No data available	

9. PHYSICAL AND CHEMICAL PROPERTIES			
Flash Point:	No data available		
Explosive limits			
Lower:	No data available		
Upper:	No data available		
Density:	No data available		
Solubility:	No data available		
10. STABILITY AND REACTIVITY			
Stability:	Stable under proper conditions.		
Reactivity:	No special reactivity has been reported.		
Incompartible materials:	oxidizing agents		
Hazardous Decomposition	Carbon monoxide, Carbon dioxide		
Products:			
11. TOXICOLOGICAL INFORMATION			
Acute Toxicity:	No data available		
Acute Toxicity.			

A DUVSICAL AND CHEMICAL DRODEDTIES

# Acute Toxicity:No data availableSkin corrosion/irritation:No data availableSerious eyeNo data availabledamage/irritation:No data availableGerm cell mutagenicity:No data availableCarcinogenicity:No data availableIARC =No data availableNTP =No data availableReproductive toxicity:No data available

### **12. ECOLOGICAL INFORMATION**

Ecotoxicity:	
Fish:	No data available
Crustacea:	No data available
Algae:	No data available
Persistence / degradability:	No data available
Bioaccumulative	No data available
potential(BCF):	
Mobillity in soil	
log Pow:	No data available
Soil adsorption (Koc):	No data available
Henry's Law	No data available
constant(PaM <sup>3</sup> /mol):	

### **13. DISPOSAL CONSIDERATIONS**

Recycle to process, if possible. Consult your local regional authorities. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. Observe all federal, state and local regulations when disposing of the substance.

### **14. TRANSPORT INFORMATION**

Hazards Class:Does not correspond to the classification standard of the United NationsUN-No:Not Listed

### **15. REGULATORY INFORMATION**

Safe management ordinance of dangerous chemical product (State Council announces on January 26, 2002): Safe use and production, the storage of a dangerous chemical, transport, loading and unloading were prescribed.

### **16. OTHER INFORMATION**

The reference company name of written contentsCompany:TCI (Shanghai) DEVELOPMENT CO., LTD.

Fax:

### 16. OTHER INFORMATION Address: Department: Telephone:

No.96 Pu Gong Road, Shanghai Chemical Industry Park, Shanghai 201507 China R&D (Information Management) Department +86-(0)21-67121388\*461 +86-(0)21-67121385

This MSDS was prepared sincerely on the basis of the information we could obtained, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority.products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling, sufficient care should be taken, in addition to the safety measures suitable for the situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.