TCI EUROPE N.V.

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## **SAFETY DATA SHEET**

According to 1907/2006/EC, Article 31

Rev	ision number: 1	<b>Revision date:</b> 10/03/2018
SECTION 1: Identification of the s	ubstance/mixture and of the company/undertaking	
1.1 Product identifiers Product name: Product code:	N-(3-Hydroxypropyl)ethylenediamine H0391	
1.2 Relevant identified uses of the sub Identified uses:	stance or mixture and uses advised against Reagents.	
1.3 Details of the supplier of the safety Supplier: TCI EUROPE N.V. Boerenveldseweg 6 Haven 1063 B-2070 Zwijndrecht Telephone: +32(0)3 735 07 00 E-mail: sales-eu@tcichemicals		
1.4 Emergency telephone number:	+32(0)70 245 245	
SECTION 2: Hazards identification		
2.1 Classification of the substance or Skin corrosion/irritation Serious eye damage/eye irritation	nixture Category 1C Category 1	
Signal word	Danger	
Signal word Hazard statements Precautionary statements	Danger H314-Causes severe skin burns and eye damage. P260-Do not breathe dusts or mists. P280-Wear protective gloves, protective clothing, face protectic P301+P330+P331+P310-IF SWALLOWED: Rinse mouth. Do N POISON CENTER or doctor. P303+P361+P353+P310+P363-IF ON SKIN (or hair): Take off Rinse skin with water or shower. Immediately call a POISON C clothing before reuse. P304+P340+P310-IF INHALED: Remove person to fresh air ar Immediately call a POISON CENTER or doctor. P305+P351+P338+P310-IF IN EYES: Rinse cautiously with wa	IOT induce vomiting. Immediately call a immediately all contaminated clothing. ENTER or doctor. Wash contaminated and keep comfortable for breathing.
2.2. Other hands	lenses, if present and easy to do. Continue rinsing. Immediately	
2.3 Other hazards Results of PBT and vPvB assessme	nt	
PBT: vPvB:	Not applicable Not applicable	
SECTION 3: Composition/informa	tion on ingredients	
3.1 Substances		
Components:	N-(3-Hydroxypropyl)ethylenediamine	
Percent: CAS RN:	>97.0%(GC)(T) 56344-32-2	
Synonyms: Chemical Formula:	2-(3-Hydroxypropylamino)ethylamine , N-(2-Aminoethyl)propan C₅H14N2O	olamine
Н0391	N-(3-Hydroxypropyl)ethylenediam	Page 1 of 5

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SECTION 4: First aid measures	5
4.1 Description of first aid measure	95
Inhalation:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
Skin contact:	Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Immediately call a POISON CENTER or doctor/physician.
Eye contact:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing Immediately call a POISON CENTER or doctor/physician.
Ingestion:	Immediately call a POISON CENTER or doctor/physician. Rinse mouth. Do NOT induce vomiting.
Protection of first-aiders:	A rescuer should wear personal protective equipment, such as rubber gloves and air-tight goggles.

**4.2 Most important symptoms and effects, both acute and delayed** No data available

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**4.3 Indication of any immediate medical attention and special treatment needed** No data available

SECTION 5: Firefighting measures		
5.1 Extinguishing media		
Suitable extinguishing media:	Dry chemical, foam, water spray, carbon dioxide.	
5.2 Special hazards arising from the substance or mixture	Take care as it may decompose upon combustion or in high temperatures to generate poisonous fume. Carbon dioxide, Carbon monoxide, Nitrogen oxides (NOx)	
5.3 Advice for firefighters	Fire-extinguishing work is done from the windward and the suitable fire-extinguishing 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 containers if safe to do so. When extinguishing fire, be sure to wear personal protective equipment	
SECTION 6: Accidental release mea	asures	
6.1 Personal precautions, protective equipment and emergency procedures	Use personal protective equipment. Keep people away from and upwind of spill/leak. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc	
6.2 Environmental precautions	Prevent product from entering drains	
6.3 Methods and materials for containment and cleaning up	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 appropriate laws and regulations.	
6.4 Reference to other sections	For disposal see section 13.	
SECTION 7: Handling and storage		
7.1 Precautions for safe handling	Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent dispersion of dust. Wash hands and face thoroughly after handling. Use a closed system if possible. Use a local exhaust if dust or aerosol will be generated. Avoid contact with skin, eyes and clothing.	
7.2 Conditions for safe storage, including any incompatibilities	Keep container tightly closed. Store in a cool and dark place. Store under inert gas. Protect from moisture.	
	Store locked up. Store away from incompatible materials such as oxidizing agents. Hygroscopic	
7.3 Specific end use(s)	No further relevant information available.	
SECTION 8: Exposure controls/pers	sonal protection	
8.1 Control parameters	No data available	
8.2 Exposure controls	Install a closed system or local exhaust. Also install safety shower and eye bath.	
Respiratory protection:	Dust respirator, self-contained breathing apparatus(SCBA), supplied air respirator, etc. Use respirators approved under appropriate government standards and follow local and national regulations.	
Hand protection:	Impervious gloves.	
Eye protection: Skin and body protection:	Safety goggles. A face-shield, if the situation requires. Impervious protective clothing. Protective boots, if the situation requires.	

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## SECTION 9: Physical and chemical properties 9.1 Information on basic physical and chemical prope

9.1 Information on basic physical and chemical properties		
Physical state (20°C):	Solid	
Form:	Crystal - Lump	
Colour:	White - Slightly pale yellow	
Odour:	No data available	
pH:	No data available	
Melting point/freezing point:	49°C	
Boiling point/range:	149°C /1.9kPa	
Flash point:	No data available	
Evaporation rate(Butyl Acetate=1):	No data available	
Flammability(solid, gas):	No data available	
Flammability or explosive limits:		
Lower:	No data available	
Upper:	No data available	
Vapour pressure:	No data available.	
Vapour density:	No data available	
Relative density:	No data available	
Solubility(ies):		
[Water]	Soluble	
[Other solvents]	No data available	
Partition coefficient:	No data available	
n-octanol/water:		
Autoignition temperature:	No data available	
Decomposition temperature:	No data available	
Dynamic Viscosity:	No data available	
Kinematic viscosity:	No data available	
9.2 Other safety information	No data available	
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SECTION 10: Stability and reactivity	
10.1 Reactivity	No data available
10.2 Chemical stability	Stable under proper conditions.
10.3 Possibility of hazardous reactions	No special reactivity has been reported.
10.4 Conditions to avoid	No data available
10.5 Incompatible materials	Oxidizing agents

10.6 Hazardous decomposition products Carbon dioxide, Carbon monoxide, Nitrogen oxides (NOx)

SECTION 11: Toxicological information	
11.1 Information on toxicological effects	3
Acute Toxicity:	No data available
Skin corrosion/irritation:	No data available
Serious eye damage/irritation:	No data available
Respiratory or skin sensitization:	No data available
Germ cell mutagenicity:	No data available
Carcinogenicity:	
IARC =	No data available
NTP =	No data available
Reproductive toxicity:	No data available
STOT-single exposure:	No data available
STOT-repeated exposure:	No data available
Aspiration hazard:	No data available

SECTION 12: Ecological informat	
12.1 Toxicity	
12.1 Toxicity Fish:	No data available
Crustacea:	No data available
	No data available
Algae:	No data avaliable
12.2 Persistence and degradability	No data available
12.3 Bioaccumulative potential	No data available
12.4 Mobility in soil	
Log Pow:	No data available
Soil adsorption (Koc):	No data available
Henry's Law (PaM ³/mol):	No data available
12.5 Results of PBT and vPvB assess	ment
PBT:	Not applicable
vPvB:	Not applicable
12.6 Other adverse effects	No data available
SECTION 13: Disposal considera	tions
13.1 Waste treatment methods	
Recycle to process, if possible. Con and burn in a chemical incinerator e disposing of the substance.	sult your local regional authorities. You may be able to dissolve or mix material with a combustible solvent quipped with an afterburner and scrubber system. Observe all federal, state and local regulations when
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## SECTION 15: Regulatory information

 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Substance of Very High Concern (SVHC) according to the Not listed REACH Regulations (EC) No.1907/2006

No data available

15.2 Chemical safety assessment

14.6 Special precautions for user

A chemical safety assessment has not been carried out.

SECTION 16: Other information	
Prepared by:	TCI EUROPE N.V.
Issue date:	10/03/2018

This SDS 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. The 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.

End of Safety Data Sheet