TCI EUROPE N.V. SAFETY DATA SHEET

**Revision number: 1** Revision date: 10/02/2018 SECTION 1: Identification of the substance/mixture and of the company/undertaking 1.1 Product identifiers cis-6-Chloro-2-hexene Product name: C1653 Product code: 1.2 Relevant identified uses of the substance or mixture and uses advised against Identified uses: Reagents. 1.3 Details of the supplier of the safety data sheet Supplier: TCI EUROPE N.V. Boerenveldseweg 6 Haven 1063 B-2070 Zwijndrecht Telephone: +32(0)3 735 07 00 E-mail: sales-eu@tcichemicals.com 1.4 Emergency telephone number: +32(0)70 245 245 SECTION 2: Hazards identification 2.1 Classification of the substance or mixture Flammable liquids Category 3 2.2 Label elements Pictograms or hazard symbols Signal word Warning H226-Flammable liquid and vapour. Hazard statements **Precautionary statements** P210-Keep away from heat/sparks/open flames/hot surfaces. - No smoking. P233-Keep container tightly closed. P280-Wear protective gloves, eye protection. P303+P361+P353-IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. P370+P378-In case of fire: Use dry chemical or dry sand to extinguish. P403+P235-Store in a well-ventilated place. Keep cool. 2.3 Other hazards Results of PBT and vPvB assessment PBT: Not applicable vPvB: Not applicable SECTION 3: Composition/information on ingredients 3.1 Substances **Components:** cis-6-Chloro-2-hexene Percent: >90.0%(GC) CAS RN: 62614-70-4 Synonyms: cis-4-Hexen-1-yl Chloride **Chemical Formula:** C<sub>6</sub>H<sub>11</sub>Cl

According to 1907/2006/EC, Article 31

SECTION 4: First aid measures	
4.1 Description of 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.
Skin contact:	Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention.
Eye contact:	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.

**<sup>4.2</sup> Most important symptoms and effects, both acute and delayed** No data available

**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: Unsuitable extinguishing media:	Dry chemical, foam, carbon dioxide. Water (It may scatter and spread fire.)
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, Hydrogen chloride
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: Keep containers cool by spraying with water. Eliminate all ignition sources if safe to do so. When extinguishing fire, be sure to wear personal protective equipment
SECTION 6: Accidental release me	asures
6.1 Personal precautions, protective equipment and emergency procedures	Use extra personal protective equipment (self-contained breathing apparatus). Keep people away from and upwind of spill/leak. Ensure adequate ventilation. 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	Absorb spilled material in dry sand or inert absorbent before recovering it into an airtight container. In case of large amount of spillage, contain a spill by bunding. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations. Remove all sources of ignition. Fire-extinguishing devices should be prepared in case of a fire. Use spark-proof tools and explosion-proof equipment.
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 generation of vapour or mist. Keep away from heat/sparks/open flame/hot surfacesNo smoking. Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment. Wash hands and face thoroughly after handling. Use a closed system if possible. Use a ventilation, local exhaust if vapour 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, dark and well-ventilated place. Store away from incompatible materials such as oxidizing agents.
7.3 Specific end use(s)	No further relevant information available.
SECTION 8: Exposure controls/per	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: Hand protection: Eye protection: Skin and body protection:	Vapor 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.

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

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Physical state (20°C):	Liquid	
Form:	Clear	
Colour:	Colorless - Almost colorless	
Odour:	No data available	
pH:	No data available	
Melting point/freezing point:	No data available	
Boiling point/range:	132°C	
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:	0.92	
Solubility(ies):		
[Water]	No data available	
[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	

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	Spark, Open flame, Static discharge	
10.5 Incompatible materials	Oxidizing agents	

10.6 Hazardous decomposition products Carbon dioxide, Carbon monoxide, Hydrogen chloride

SECTION 11: Toxicological information	
1.1 Information on toxicological effects	
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

12.1 Toxicity	
Fish:	No data available
Crustacea:	No data available
Algae:	No data available
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 asses	sment
PBT:	Not applicable
vPvB:	Not applicable
12.6 Other adverse effects	No data available
SECTION 13 <sup>,</sup> Disposal consider	ations
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13.1 Waste treatment methods Recycle to process, if possible. Co	ations nsult your local regional authorities. You may be able to burn in a chemical incinerator equipped with an Dbserve all federal, state and local regulations when disposing of the substance.
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14.5 Environmental hazards Marine pollutant	-
14.6 Special precautions for user	No data available

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

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information	
Prepared by:	TCI EUROPE N.V.
Issue date:	10/02/2018

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 for 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 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