SAFETY DATA SHEET

According to 1907/2006/EC, Article 31

Revi	sion number: 1		Revision date:	10/02/2018
SECTION 1: Identification of the substance/mixture and of the company/undertaking				
1.1 Product identifiers				
Product name: Product code:	3-Chlorobenzaldehyde C0124			
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 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 m	nixture	Catagon ( 4		
Acute toxicity (Oral) Acute toxicity (Dermal)		Category 4 Category 4		
Acute toxicity (Inhalation)		Category 4		
Skin corrosion/irritation		Category 2		
Serious eye damage/eye irritation		Category 2		
2.2 Label elements Pictograms or hazard symbols				
Signal word	Warning			
Hazard statements		I if swallowed, in contact with skin or if inhale	d.	
	H315-Causes skin irritation H319-Causes serious eye i			
Precautionary statements	P261-Avoid breathing mist,			
-		moke when using this product.		
	P302+P352+P312+P362+F CENTER or doctor if you fe P304+P340+P312-IF INHA POISON CENTER or docto P305+P351+P338+P337+F	es, protective clothing, eye protection. P364-IF ON SKIN: Wash with plenty of soap a eel unwell. Take off contaminated clothing and LED: Remove person to fresh air and keep o or if you feel unwell. P313-IF IN EYES: Rinse cautiously with wate nd easy to do. Continue rinsing. If eye irritatio	d wash it before reu omfortable for brea r for several minute	se. thing. Call a s. Remove
2.3 Other hazards Results of PBT and vPvB assessmen	<b>+</b>			
Results of PBT and vPvB assessmen PBT:	Not applicable			
vPvB:	Not applicable			
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SECTION 3: Composition/information on ingredients

3.1 Substances	
Components:	3-Chlorobenzaldehyde
Percent:	>98.0%(GC)
CAS RN:	587-04-2
EC-No:	209-596-9
Chemical Formula:	C7H₅ClO

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. Call a POISON CENTER or doctor/physician 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:	Call a POISON CENTER or doctor/physician 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.

4.2 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

5.1 Extinguishing media	
Suitable extinguishing media:	Dry chemical, foam, water spray, carbon dioxide.
Unsuitable extinguishing media:	Solid streams of water
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: Remove movable containers if safe to do so. When extinguishing fire, be sure to wear personal protective equipment

SECTION 6: Accidental release measures		
6.1 Personal precautions, protective equipment and emergency procedures	Use personal protective equipment. 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 a suitable absorbent (e.g. rag, dry sand, earth, saw-dust). 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 flames and hot surfaces. 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 under inert gas. Store away from incompatible materials such as oxidizing agents. Air-sensitive	
7.3 Specific end use(s)	No further relevant information available.	

SECTION 8: Exposure controls/personal protection		
8.1 Control parameters	No data available	
8.2 Exposure controls	Install a closed system or local exhaust as possible so that workers should not be exposed directly. 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 ch	nemical properties	
Physical state (20°C):	Liquid	
Form:	Clear	
Colour:	Colorless - Slightly pale yellow	
Odour:	No data available	
pH:	No data available	
Melting point/freezing point:	11°C (Freezing point)	
Boiling point/range:	214°C	
Flash point:	88°C	
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:	1.24	
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	Open flame	
10.5 Incompatible materials	Oxidizing agents	

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

# SECTION 11: Toxicological information

11.1 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

# SECTION 12: Ecological information

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 <sup>3</sup> /mol):	No data available	
12.5 Results of PBT and vPvB assessment		
PBT:	Not applicable	
vPvB:	Not applicable	

### 12.6 Other adverse effects

SECTION 13: Disposal considerations

## 13.1 Waste treatment methods

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

No data available

SECTION 14: Transport information		
14.1 UN number	Not listed	
14.2 UN proper shipping name		
ADR/RID	Not listed	
IMDG/IMO	Not listed	
ICAO/IATA	Not listed	
ICAU/IATA	Not listed	
14.3 Transport hazard class(es)		
ADR/RID	Does not correspond to the classification standard of the United Nations	
IMDG/IMO	Does not correspond to the classification standard of the United Nations	
ICAO/IATA	Does not correspond to the classification standard of the United Nations	
14.4 Packaging group		
ADR/RID		
IMDG/IMO	-	
	-	
ICAO/IATA	-	
14.5 Environmental hazards		
Marine pollutant	-	
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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		
Water Hazard Classes (WGK) :	Class 2 - Hazard to waters	
Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No.1907/2006	Not listed	
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 bazards and toxicity. Prior to use please investigate not only the bazards and toxicity information but also the	

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 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