Otto Chemie Pvt Ltd

An ISO 9001 : 2015 & GMP Certified Company
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MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1: Product identifiers
Product Name: 1,6-Dichlorohexane, 98%
Product Code: D 2815
CAS No: 2163-00-0

1.2. Relevant identified uses of the substance or mixture and uses advised against
Use : Industrial. For professional use only.

1.3. Details of the supplier of the safety data sheet
Company identification
OTTO CHEMIE PVT LTD
No 603, 6th Floor, Tardeo AC Market, 87, Tardeo Road,
Tardeo, Mumbai, Maharashtra 400034, India (BHARAT)

1.4. Emergency telephone number
Phone no. : + 91 98200 41841 (10 : 00 am – 06 : 00 pm)

SECTION 2: Hazards identification
2.1 Classification of the substance or mixture

Skin irritation, (Category 2)	H315: Causes skin irritation.
Aspiration hazard, (Category 1)	H304: May be fatal if swallowed and enters airways.
Long-term (chronic) aquatic hazard, (Category 2)	H411: Toxic to aquatic life with long lasting effects.

2.2 Label elements
Labelling according Regulation (EC) No 1272/2008

Pictogram	
Signal Word	Danger
Hazard Statements	
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H411	Toxic to aquatic life with long lasting effects.
Precautionary Statements	
P273	Avoid release to the environment.
P301 + P310 + P331	IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting.
P302 + P352	IF ON SKIN: Wash with plenty of water.
Supplemental Hazard Statements	none
Reduced Labeling (<= 125 ml)	
Pictogram	
Signal Word	Danger
Hazard Statements	
H304	May be fatal if swallowed and enters airways.
Precautionary Statements	
P301 + P310 + P331	IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting.
Supplemental Hazard Statements	none

2.3 Other hazards
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
Ecological information:
The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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Toxicological information:
The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	: Hexamethylene dichloride
Formula	: Cl(CH2)6Cl
Molecular weight	: 155,07 g/mol
CAS-No.	: 2163-00-0
EC-No.	: 218-491-7

Component	Classification	Concentration
1,6-Dichlorohexane		
CAS-No. 2163-00-0 EC-No. 218-491-7	Skin Irrit. 2; Asp. Tox. 1; Aquatic Chronic 2; H315, H304, H411	<= 100 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first-aid measures
General advice
Consult a physician. Show this material safety data sheet to the doctor in attendance.
If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration.
Consult a physician.
In case of skin contact
Wash off with soap and plenty of water. Consult a physician.
In case of eye contact
Flush eyes with water as a precaution.
If swallowed
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
4.2 Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11
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
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media
Do NOT use water jet.
5.2 Special hazards arising from the substance or mixture
Carbon oxides
Hydrogen chloride gas
Combustible.
5.3 Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.
5.4 Further information
Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.
For personal protection see section 8.
6.2 Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Discharge into the environment must be avoided.

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6.3 Methods and materials for containment and cleaning up
Contain spillage, and then collect with non-combustible absorbent material,
(e.g. sand, earth, diatomaceous earth, vermiculite)
and place in container for disposal according to
local / national regulations (see section 13). Keep in suitable, closed containers for disposal.
6.4 Reference to other sections
For disposal see section 13.

SECTION 7: Handling and storage
7.1 Precautions for safe handling
Advice on safe handling
Avoid contact with skin and eyes.
Avoid inhalation of vapor or mist.
Advice on protection against fire and explosion
Keep away from sources of ignition - No smoking.
Take measures to prevent the build up of electrostatic charge.
Hygiene measures
Handle in accordance with good industrial hygiene and safety practice.
Wash hands before breaks and at the end of workday.
For precautions see section 2.2.
7.2 Conditions for safe storage, including any incompatibilities
Storage conditions
Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Store in cool place.
Storage class
Storage class (TRGS 510): 10: Combustible liquids
7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection
8.1 Control parameters
Ingredients with workplace control parameters
8.2 Exposure controls
Personal protective equipment
Eye/face protection
Face shield and safety glasses Use equipment for eye protection tested and
approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Skin protection
The selected protective gloves have to satisfy the specifications of Regulation (EU)
2016/425 and the standard EN 374 derived from it.
Handle with gloves. Gloves must be inspected prior to use. Use proper glove
removal technique (without touching glove's outer surface) to avoid skin contact
with this product. Dispose of contaminated gloves after use in accordance with
applicable laws and good laboratory practices. Wash and dry hands.
Body Protection
Complete suit protecting against chemicals, The type of protective equipment must
be selected according to the concentration and amount of the dangerous substance
at the specific workplace.
Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a full
face respirator with multi-purpose combination (US) or type ABEK (EN 14387)
respirator cartridges as a backup to engineering controls. If the respirator is the sole
means of protection, use a full-face supplied air respirator. Use respirators and
components tested and approved under appropriate government standards such as
NIOSH (US) or CEN (EU).
Control of environmental exposure
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Discharge into the environment must be avoided.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Physical state	liquid
b) Color	light yellow
c) Odor	No data available
d) Melting point/freezing point	Melting point: -14,8 °C at 1.013 hPa - OECD Test Guideline 102
e) Initial boiling point and boiling range	87 - 90 °C at 20 hPa - lit.
f) Flammability (solid, gas)	No data available
g) Upper/lower flammability or explosive limits	Upper explosion limit: 10,5 %(V) Lower explosion limit: 5,3 %(V)
h) Flash point	73,9 - 77 °C - closed cup
i) Autoignition temperature	No data available
j) Decomposition temperature	No data available
k) pH	6 - 7 at 20 °C
l) Viscosity	Viscosity, kinematic: 2,02 mm2/s at 20 °C - OECD Test Guideline 114
Viscosity, dynamic:	No data available
m) Water solubility	0,057 g/l at 20 °C - OECD Test Guideline 105
n) Partition coefficient: n-octanol/water	log Pow: 3,5 at 25 °C - (External MSDS) Bioaccumulation is not expected.
o) Vapor pressure	23 hPa at 92 °C 0,113 hPa at 20 °C
p) Density	1,068 g/mL at 25 °C - lit.
Relative density	No data available
q) Relative vapor density	No data available
r) Particle characteristics	No data available
s) Explosive properties	No data available
t) Oxidizing properties	none

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 recommended storage conditions.
10.3 Possibility of hazardous reactions
No data available
10.4 Conditions to avoid
Heat, flames and sparks.
10.5 Incompatible materials
No data available
10.6 Hazardous decomposition products
In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects
Routes of Entry: Absorbed through skin. Dermal contact. Eye contact. Toxicity to Animals:
Oral LD50 Rat: 1500 mg/kg; Dermal LD50 Rabbit: 2000mg/kg Inhalation LC50 Rat: > 50mg/L.
Chronic Effects on Humans: CARCINOGENIC EFFECTS: Classified None. by NTP, None. by OSHA, None. by NIOSH.
Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of inhalation (lung irritant).
Special Remarks on Toxicity to Animals: Not available.
Special Remarks on Chronic Effects on Humans: Not available.
Special Remarks on other Toxic Effects on Humans: Not available.

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SECTION 12: Ecological information

12.1 Toxicity
Toxicity to fish static test LC50 - Leuciscus idus (Golden orfe) - 100 - 215 mg/l – 96 h
(OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates
semi-static test EC50 - Daphnia magna (Water flea) - 2,61 mg/l – 48 h
(OECD Test Guideline 202)
Toxicity to algae static test ErC50 - Desmodesmus subspicatus (green algae) - 7,74 mg/l - 72 h
(OECD Test Guideline 201)
static test NOEC - Desmodesmus subspicatus (green algae) - 3,24 mg/l - 72 h
(OECD Test Guideline 201)
Toxicity to bacteria static test EC50 - activated sludge - 600 mg/l - 30 min
(OECD Test Guideline 209)
12.2 Persistence and degradability
Biodegradability aerobic - Exposure time 31 d Result: 10 % - Not readily biodegradable.
(OECD Test Guideline 310)
12.3 Bioaccumulative potential
No data available
12.4 Mobility in soil
No data available
12.5 Results of PBT and vPvB assessment
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
12.6 Endocrine disrupting properties
Product:
Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
12.7 Other adverse effects
Toxic to aquatic life with long lasting effects.
Biological effects:
When discharged properly, no impairments in the function of adapted biological wastewater treatment plants are to be expected.
Discharge into the environment must be avoided.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Product
Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.
Contaminated packaging
Dispose of as unused product.

SECTION 14: Transport information

14.1 UN number
ADR/RID: 3082 IMDG: 3082 IATA: 3082
14.2 UN proper shipping name
ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1,6-Dichlorohexane)
IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1,6-Dichlorohexane)
IATA: Environmentally hazardous substance, liquid, n.o.s. (1,6-Dichlorohexane)
14.3 Transport hazard class(es)
ADR/RID: 9 IMDG: 9 IATA: 9
14.4 Packaging group
ADR/RID: III IMDG: III IATA: III

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14.5 Environmental hazards
ADR/RID: yes IMDG Marine pollutant: yes IATA: yes
14.6 Special precautions for user
Tunnel restriction code : (-)
Further information : No data available

SECTION 15: Regulatory information
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.
National legislation
Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.
E2 ENVIRONMENTAL HAZARDS
15.2 Chemical Safety Assessment
For this product a chemical safety assessment was not carried out

SECTION 16: Other Information
This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

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