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MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1. Product identifiers

Product name: Hexane, fraction Product Code: H 1360 CAS No : 110-54-3

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
101, Aarkay Ruby Industrial Estate(1B), Opp Shree Narayan Industrial Estate, Chinchpada, Vasai East, Waliv, Maharashtra 401208.
Email info@ottokemi.com

1.4. Emergency telephone number Phone no. : + 91 22 2207 0099 (9:00am - 6:00 pm)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture Flammable liquids, (Category 2) H225: Highly flammable liquid and vapor. Skin irritation, (Category 2) H315: Causes skin irritation. Reproductive toxicity, (Category H361f: Suspected of damaging fertility. 2) Specific target organ toxicity -H336: May cause drowsiness or dizziness. single exposure, (Category 3) Central nervous system H373: May cause damage to organs Specific target organ toxicity repeated exposure, (Category 2), through prolonged or repeated exposure if Nervous system inhaled. Aspiration hazard, (Category 1) H304: May be fatal if swallowed and enters airways. Long-term (chronic) aquatic H411: Toxic to aquatic life with long lasting hazard, (Category 2) effects. 2.2 Label elements Labelling according Regulation (EC) No 1272/2008 Pictogram Signal Word Danger Hazard Statements H225 Highly flammable liquid and vapor. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. May cause drowsiness or dizziness. H336 H361f Suspected of damaging fertility. H373 May cause damage to organs (Nervous system) through prolonged or repeated exposure if inhaled. Toxic to aquatic life with long lasting effects. H411 **Precautionary Statements** Do not handle until all safety precautions have been read and P202 understood. P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P273 Avoid release to the environment. IF SWALLOWED: Immediately call a POISON CENTER/ doctor. P301 + P310 P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Do NOT induce vomiting. P331 Supplemental Hazard none

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Statements			
Reduced Labeling (<= 125 ml)			
Pictogram	Deman		
Signal Word Hazard Statements	Danger		
Hazard Statements H304	May be fatal if swallowed	and antora airwaya	
H361f	Suspected of damaging fe		
Precautionary Statements	Suspected of damaging le	stunty.	
P202	Do not handle until all safe	ety precautions have been read and	
	understood.		
P301 + P310	IF SWALLOWED: Immedi	iately call a POISON CENTER/ doctor.	
P331	Do NOT induce vomiting.	,	
Supplemental Hazard	none		
Statements			
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 co	mponents considered to have endocrine		
disrupting properties according to REACH Article 57(f) or Commission Delegated regulation			
	(EU) 2018/605 at levels of 0.1% or higher.		
Toxicological information:			
The substance/mixture does not contain components considered to have endocrine			
	Article 57(f) or Commission Delegated regula	ation	
(EU) 2017/2100 or Commission Regulation	(EU) 2018/605 at levels of 0.1% or higher.		
SECTION 3: Composition/information or	in an alternation of the second se		
3.1 Substances	ingreatents		
Formula : C6H14			
Molecular weight : 86,18 g/mol			
CAS-No. : 110-54-3		Y ()	
EC-No. : 203-777-6			
Component	Classification	Concentration	
n-Hexane			

Classification	Concentration
Flam. Liq. 2; Skin Irrit. 2; Repr. 2; STOT	<= 100 %
SE 3; STOT RE 2; Asp. Tox. 1; Aquatic	
Chronic 2; H225, H315, H361f, H336,	
H373, H304, H411 Concentration limits:	
>= 5 %: STOT RE 2, H373; >= 20 %:	
STOT SE 3, H336;	
	Flam. Liq. 2; Skin Irrit. 2; Repr. 2; STOT SE 3; STOT RE 2; Asp. Tox. 1; Aquatic Chronic 2; H225, H315, H361f, H336, H373, H304, H411 Concentration limits: >= 5 %: STOT RE 2, H373; >= 20 %:

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
Show this material safety data sheet to the doctor in attendance.
If inhaled
After inhalation: fresh air. Call in physician.
In case of skin contact
In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.
In case of eye contact
After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.
If swallowed
After swallowing: caution if victim vomits. Risk of aspiration! Keep airways free. Pulmonary failure possible after aspiration of vomit. Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

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Otto Chemie Pvt Ltd - provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product

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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 Carbon dioxide (CO2) Foam Dry powder Unsuitable extinguishing media For this substance/mixture no limitations of extinguishing agents are given. 5.2 Special hazards arising from the substance or mixture Carbon oxides Combustible. Pay attention to flashback. Vapors are heavier than air and may spread along floors. Development of hazardous combustion gases or vapours possible in the event of fire. Forms explosive mixtures with air at ambient temperatures. 5.3 Advice for firefighters Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing. 5.4 Further information Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system. **SECTION 6: Accidental release measures** 6.1 Personal precautions, protective equipment and emergency procedures Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

6.2 Environmental precautions Do not let product enter drains. Risk of explosion.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions

(see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g.

Chemizorb®). Dispose of properly. Clean up affected area.

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

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols. Advice on protection against fire and explosion Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge. Hygiene measures Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. 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. Keep away from heat and sources of ignition. Recommended storage temperature see product label. Storage class Storage class (TRGS 510): 3: Flammable liquids 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters Ingredients with workplace control parameters 8.2 Exposure controls Personal protective equipment Eve/face protection Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses Skin protection This recommendation applies only to the product stated in the safety data sheet. supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). Full contact Material: Nitrile rubber Minimum layer thickness: 0,4 mm Break through time: 480 min Material tested:Camatril® (KCL 730 / Aldrich Z677442, Size M) This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). Splash contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 10 min Material tested:KCL 741 Dermatril® L **Body Protection** Flame retardant antistatic protective clothing. Respiratory protection Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented. Control of environmental exposure Do not let product enter drains. Risk of explosion. **SECTION 9: Physical and chemical properties** 9.1 Information on basic physical and chemical properties a) Physical state liquid b) Color colorless c) Odor hydrocarbon-like d) Melting Melting point: -95,35 °C at 1.013 hPa point/freezing point e) Initial boiling point 69 °C at 1.013 hPa

No data available

Upper explosion limit: 8,1 %(V) Lower explosion limit: 1,0 %(V)

-22 °C - closed cup - c.c. 225 °C at 1.013 hPa No data available

7,0 Viscosity, kinematic: No data available

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and boiling range f) Flammability (solid,

g) Upper/lower

flammability or

explosive limits h) Flash point

i) Autoignition

j) Decomposition

temperature

temperature k) pH

I) Viscosity

gas)

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m) Water solubility n) Partition coefficient: n-octanol/water o) Vapor pressure p) Density Relative density q) Relative vapor density r) Particle characteristics s) Explosive properties t) Oxidizing properties 9.2 Other safety information No data available Viscosity, dynamic: 0,3 mPa.s at 25 $^\circ\text{C}$ 0,01 g/l at 25 $^\circ\text{C}$ - slightly soluble log Pow: ca.4 at 20 $^\circ\text{C}$ - (Lit.), Potential bioaccumulation

175,98 hPa at 20,0 °C 0,66 g/cm3 at 25 °C No data available No data available

No data available

Not classified as explosive. none

SECTION 10: Stability and reactivity

10.1 Reactivity Vapors may form explosive mixture with air. Vapors may form explosive mixture with air. 10.2 Chemical stability The product is chemically stable under standard ambient conditions (room temperature). The product is chemically stable under standard ambient conditions (room temperature). 10.3 Possibility of hazardous reactions Risk of explosion with: Violent reactions possible with: Strong oxidizing agents nitrogen oxides halogens rubber various plastics Risk of ignition or formation of inflammable gases or vapours with: Peroxides (sodium salt) 10.4 Conditions to avoid Warming. Warming. 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 other Toxic Effects on Humans: Not available. Special Remarks on other Toxic Effects on Humans: Not available.

SECTION 12: Ecological information

12.1 Toxicity Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 2,5 mg/l - 96 h Remarks: (ECOTOX Database) Toxicity to daphnia and other aquatic invertebrates

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EC50 - Daphnia magna (Water flea) - 2,1 mg/l - 48 h Remarks: (Lit.) 12.2 Persistence and degradability Biodegradability aerobic - Exposure time 28 d Result: 98 % - Readily biodegradable. (OECD Test Guideline 301F) Remarks: (in analogy to similar products) 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 No data available **SECTION 13: Disposal considerations** 13.1 Waste treatment methods No data available **SECTION 14: Transport information** 14.1 UN number ADR/RID: 1208 IMDG: 1208 IATA: 1208 14.2 UN proper shipping name ADR/RID : HEXANES IMDG : HEXANES ΙΑΤΑ : Hexanes 14.3 Transport hazard class(es) ADR/RID: 3 IMDG: 3 IATA: 3 14.4 Packaging group ADR/RID: II IMDG: II IATA: II 14.5 Environmental hazards ADR/RID: yes IMDG Marine pollutant: yes IATA: no 14.6 Special precautions for user Tunnel restriction code (D/E) 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. Authorisations and/or restrictions on use 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 P5c FLAMMABLE LIQUIDS Other regulations Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or

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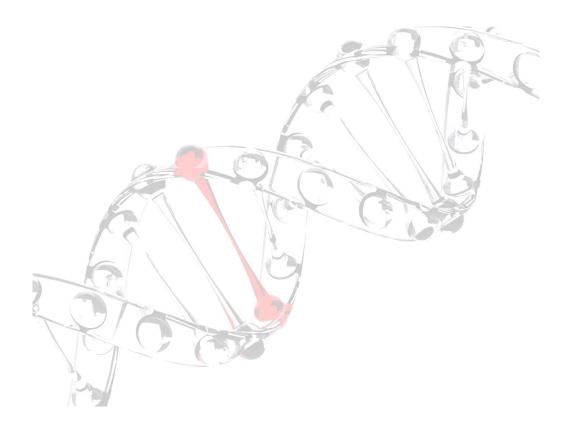
stricter national regulations where applicable.

Take note of Dir 94/33/EC on the protection of young people at work. 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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