Section-1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1 Identification of the substance/preparation:

Commercial name: BENZENE
Chemical name: BENZENE ; C6H6

Synonyms: Benzene, Benzol, Phenyl hydride, carbon oil.

1.2 Use of the substance /preparation:

Solvent & raw material in the synthesis of styrene, phenol (phenolic resins), cyclohexane (nylon), aniline, maleic anhydride (polyester resins), alkyl benzenes (detergents), chlorobenzenes, and other products used in the production of drugs, dyes, pesticides, polymers, resins.

1.3 MANUFACTURER & SUPPLIER: Reliance Industries Limited Emergency Coordination Centre contact details:

Hazira Mfg. Division Village Mora, Dist Surat, Gujarat, India	SSM Office	+91 2613535050/+912613535056 (24x7)
Jamnagar Mfg. Division Village Meghpar / Padana, Taluka Lalpur, Dist. Jamnagar, Gujarat	SSM Office	+ 91 288 6612400 Mobile 6354918737 + 91 288 6611190/1/6 (24x7)
Vadodara Mfg. Division PO Petrochemicals, Dist: Vadodara, Gujrat, India	SSM Office	+91 265-3546525/+91 265-3543869 (24x7)

SSM: Site Shift Manager

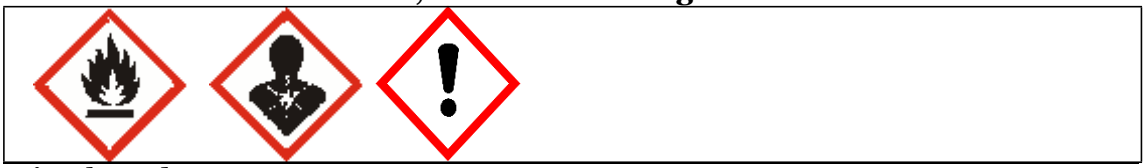
Section 2 – HAZARD IDENTIFICATION

Hazard Category:

Health	Environmental	Physical
Aspiration toxicity: Category 1 Eye irritation: Category 2A Skin irritation: Category 2 Carcinogenicity – Category 1A Mutagenicity – Category 1B Specific Target Organ Toxicity (RE): 1	Aquatic Toxicity – Category- 1	Flammable – Category 2

RE: Repeated Exposure
Data reference: http://ecb.jrc.ec.europa.eu/esis/, Data reference: Official Journal of the European Union regarding EU GHS

GHS Label: GHS02: Flame, GHS08: Carcinogen.



Signal Word: Danger.
Details of statements:

Hazard Statements	H225: Highly flammable liquid and vapour. H350: May cause cancer H340: May cause genetic defects H372: Causes damage to organs H304: May be fatal if swallowed and enters airways. H319: Causes serious eye irritation. H315: Causes skin irritation. H402 Harmful to aquatic life
Precautionary Statement(s)	P 102: Keep out of reach of children. P 103: Read carefully and follow all instructions. P203: Obtain, Read, and follow all the safety instruction before use. P210: Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. P 233: Keep container tightly closed. P 240: Ground and bond container and receiving equipment. P 241: Use explosion-proof electrical/ventilating/lighting/ equipment. P 242: Use non-sparking tools. P 243: Take actions to prevent static discharges. P 260: Do not breathe dust/fume/gas/mist/vapours/spray. P 264: Wash thoroughly after handling. P 270: Do not eat, drink or smoke when using this product. P 280: Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. P283: Wear fire resistant or flame retardant clothing P284: [In case of inadequate ventilation] wear respiratory protection P302+P352 IF ON SKIN: Wash with plenty of water P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P308+P316 IF exposed or concerned: Get emergency medical help immediately. P332+P317 If skin irritation occurs: Get medical help. P337+P317 If eye irritation persists: Get medical help. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated P 101: If medical advice is needed, have product container or label at hand. P 321: Specific treatment (see ... on this label). P 331: Do NOT induce vomiting. P 362: Take off contaminated clothing. P 370+ P 378: In case of fire: Use for extinction. P235: Keep cool. P403: Store in a well-ventilated place. P405: Store locked up. Follow local regulation

Data reference: Globally Harmonized System of Classification and Labelling of chemicals (GHS)

Route of entry:

Skin Contact	Skin Absorption	Eye Contact	Inhalation	Ingestion
Yes	Yes	Yes	Yes	Yes

2.1 Health hazards:

Inhalation: Severely irritating if inhaled and acute exposure may be fatal.
Ingestion: May be fatal if swallowed.
Skin contact: May be fatal if absorbed. Highly irritating to skin. May cause allergic skin reaction.
Eye contact: Highly corrosive to eyes.
Chronic exposure: Weakness, coughing, labored breathing, headache Confusion nausea/vomiting convulsions heart rate and pulse variations coma respiratory failure
Aggravations to preexisting conditions: Those with history of lung diseases, or

skin problems may be more susceptible to the effects of this substance.

2.2 Information pertaining to particular dangers for human:

Toxic substance with carcinogenic and mutagenic effects. Acute intoxication leads to central nervous system attenuation and narcotic effects occur. After swallowing possibility of aspiration (passage into the lung) and danger of chemical pneumonia (pulmonary edema). Product irritates eyes and skin. High vapour concentrations irritate respiratory system and eyes and may lead to fast coma and death. Liquid is absorbed through skin and may develop allergic eruption. Chronic effects cause bone marrow damage, haemopoiesis disorder and may develop leukemia.

2.3 Information pertaining to particular dangers for the environment:

Possible adverse effects on aquatic organisms.

2.4 Other adverse effects:

Highly flammable and easily ignitable substance. Danger of ignition at normal temperature. Readily evaporates and vapours form with air toxic and explosive mixtures heavier than air. Mixtures keep above ground and after ignition they spread fast into far distances. Ignition possible when exposed to hot surfaces, sparks, naked flames and by electrostatic discharges too. The substance is practically insoluble in water, floats on the water level and forms toxic and explosive mixtures above the water level. Risk of explosion if emptied into drains or released into wastewater. Attacks rubber and plastics.

Target Organs: Eyes, skin, respiratory system, blood, central nervous system, bone marrow

Section 3 – COMPOSITION & INFORMATION ON INGREDIENTS

Ingredients / Hazardous	CAS No.	EINECS No.	Percentage
Benzene/Yes	71-43-2	200-753-7	>99. 90 %
Toluene / Yes	108-88-3	203-625-9	<0.03%

Section 4 – FIRST AID MEASURES

4.1 General advice

IMMEDIATE MEDICAL ATTENTION IS REQUIRED AFTER INHALATION OR AFTER SWALLOWING.

IF inhaled: Immediately leave the contaminated area; take deep breaths of fresh air. If symptoms (such as wheezing, coughing, shortness of breath, or burning in the mouth, throat, or chest) develop, call a physician, and be prepared to transport the victim to a hospital. Provide proper respiratory protection to rescuers entering an unknown atmosphere. Where possible, Self-contained breathing apparatus (SCBA) should be used; if not available, use a level of protection greater than or equal to that advised under protective clothing.

In case of skin contact: Wash off with soap and plenty of water. Get medical attention if symptoms occur.

In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.

IF swallowed: Rinse mouth. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Call a doctor if you feel unwell.

Section 5 – FIRE FIGHTING MEASURES

5.1 Suitable extinguishing media
Foam, Dry chemical powder, CO_2.
Cool containers with water spray.

5.2 Extinguishing media to be avoided
Water, in the form of jet.

5.3 Caution about specific danger in case of fire and fire-fighting procedures
Danger of violent reaction or explosion. Vapors may travel considerable far distances and cause subsequent ignition. Vapors are heavier than air, may cumulate along the ground and in enclosed spaces – danger of explosion. Do not empty into drains. When burning, it emits carbon monoxide, carbon dioxide and irritant fumes. Containers with the substance exposed to excessive heat may explode.
Keep unauthorized personnel out.
Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
Use water as a fine spray to control fire and cool adjacent area.

5.4 Special protective equipment for fire-fighters
Wear full protective fire-resistant clothing and self-contained breathing apparatus

Section 6 –ACCIDENTAL RELEASE MEASURES

6.1 Person-related safety precautions
Isolate hazard area. Evacuate all unauthorized personnel not participating in rescue operations from the area. Avoid entry into danger area. Remove all possible sources of ignition. Stop traffic and switch off the motors of the engines. Do not smoke and do not handle with naked flame. Use explosion-proof lamps and non- sparking tools. Avoid contact with the substance. Apply recommended full protective personal equipment. When escaping from the contaminated area, wear mask with cartridge against organic vapours. Evacuate personnel from danger area. In places under the ground level and in enclosed spaces (including drains) risk of explosion and accumulation of toxic vapours.

6.2 Precautions for protection of the environment
Prevent from further leaks of substance. Do not allow substance to enter soil, water and sewage systems. In case of substance discharge to water courses or water containers, inform water consumers immediately, stop service and withdrawal of water.

6.3 Recommended methods for cleaning and disposal
Pump off substance safely, soak up residues with compatible porous material and forward for disposal in closed containers. Dispose off under valid legal waste regulations. Approach spill from upwind and higher ground if possible. Decontamination area workers should wear appropriate PPE.

Section 7 –HANDLING AND STORAGE

7.1 Information for safe handling
Observe all fire-fighting measures (no smoking, do not handle with naked flame and remove all possible sources of ignition). Take precautionary measures against static discharges. Wear recommended personal protective equipment and observe instructions to prevent possible contact of substance with skin and eyes and inhalation. Handle under adequate ventilation. Avoid leak to environment. Remove contaminated clothing and decontaminate as per guidelines before reuse.

7.2 Information for storage

Storerooms should meet the requirements for the fire safety of constructions and electrical facilities and should be in conformity with valid regulations. Store in cool, well-ventilated place with effective exhaust, away from heat and all sources of ignition. Store in tightly closed container. Do not store together with oxidizing agents. Take precautionary measures against static discharges. Avoid leak to environment.

7.3 Information for specific use

Not applicable.

Section 8 –EXPOSURE CONTROL & PERSONAL PROTECTION

8.1 Occupational Exposure Limits:

Material	Source	Type	ppm	mg/m3	Notation
BENZENE	ACGIH	TWA	0.5		
	ACGIH	STEL	2.5		
	ACGIH	SKIN_DES TWA	NA		
	NIOSH	IDLH	500*		
	OSHA	TWA	1		
	OSHA	STEL	5		

NA: Data not available
*Data revised in the year 2016
Odor Threshold: In air: 4.9 mg/cu m (characteristic odor), in water: 2.0 mg/l.
DATA REFERENCE: http://toxnet.nlm.nih.gov/cgi-bin/sis/search.
Recommended determination method in the work place atmosphere: gas chromatography, detector tube.

Benzene (CAS: 71-43-2)
The Indian Factories Act (second schedule):
Permissible Levels of Exposure: 0.5 ppm TWA, 2.5 ppm STEL
ACGIH (USA): 0.5 ppm TWA, (ST) 2.5 ppm TLV® inhalation
Cal/OSHA (USA): 1 ppm TWA, (ST) 5 ppm
NIOSH: 0.1 ppm TWA, (ST) 1 ppm

8.2 Occupational exposure controls

Collective protection measures: General and local ventilation, effective exhaust.
Individual protection measures: Personal protective equipment (PPE) for the protection of eyes, hands and skin corresponding with the performed labor has to be kept at disposition for the employees. In cases, where the workplace exposure control limits cannot be observed with the help of technical equipment or where it is not possible to ensure that the respiratory system exposure does not represent a health hazard for the personnel, adequate respiratory protection have to be kept at disposition. In the case of continuous use of this equipment during constant work, safety breaks have to be scheduled, if the PPE-character requires this. All PPE have to be kept in disposable state and the damaged or contaminated equipment has to be replaced immediately.

RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT (PPE):

HANDS	EYES	BODY	RESPIRATORY
 		 	 

Selection of appropriate Personal Protective Equipment must be based on risks associated with the task being performed. Following aspects must be considered while selecting PPEs.

Respiratory protection: The respirator must be NIOSH approved and capable of reducing exposure below the occupational exposure limit in the interim until an engineering control is put in place. Also, the tight-fitting of respirators must be ensured.

Eye protection: Use chemical safety goggles and/or a full-face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

Hand protection: Use chemical resistant gloves, made of impervious material with proper certifications as per applicable standards. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers.

Body protection: Use appropriate chemical resistant, impervious protective clothing, including boots with proper certifications as per applicable standards to prevent skin contact. When there is a risk of ignition from static electricity, wear antistatic protective clothing.

For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Hygiene Measures: Wash hands, forearms and face thoroughly after handling. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Always consider original PPE manufacturer's guidelines for disinfection, handling, and re-use of PPEs.

8.3 Environmental exposure controls

Proceed in accordance with valid air, water, waste legislative regulations and any other applicable requirements.

Engineering measures: Use only with adequate ventilation. If user operations generate dust, fumes, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Section 9 –PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Liquid, colourless or light yellow
Odour	Aromatic odour
Solubility in water	1.8 g/L at 25 °C
Relative Density (H2O=1) @ 15°C	0.88

Boiling Point °C	80.1 °C
Melting Point °C	5.5 °C
Relative Vapour Density (Air=1)	2.8
Flash point °C	-11°C Closed cup
Auto ignition °C	498 °C
Vapour pressure (mmHg) @ 25 °C	94.8
Molecular weight	78.1
Explosive limits in air % by volume	LEL 1.2%; UEL 7.8%
PH	NA
Viscosity mPa.s @25 °C	0.604
Pour point	NA
Evaporation rate (ether=1)	2.8
Octanol/water partition coefficient log Kow	2.13
% volatile	NA

NA: NOT AVAILABLE
DATA REFERENCE:
https://pubchem.ncbi.nlm.nih.gov/compound/Benzene#section=Soluhttps://pubchem.ncbi.nlm.nih.gov/compound/Benzene#

Section 10 –CHEMICAL STABILITY AND REACTIVITY INFORMATION

10.1 Conditions to avoid
Concentrations within the explosion limits, sources of ignition, high temperature, sun radiation.

10.2 Material to avoid
- Benzene reacts vigorously with allyl chloride or other alkyl halides even at -70°C in the presence of ethyl aluminum dichloride or ethyl aluminum sesquichloride.
- Ignites in contact with powdered chromic anhydride.
- Incompatible with oxidizing agents such as nitric acid.
- Mixtures with bromine trifluoride, bromine pentafluoride, iodine pentafluoride, iodine heptafluoride and other interhalogens can ignite upon heating
- Benzene and cyanogen halides yield HCl as a byproduct
- The reaction of benzene and trichloroacetonitrile evolves toxic chloroform and HCl gasses.
- Explosive reaction with chlorine (on light), with acid, nitric acid, nitrosyl perchlorate, silver perchlorate, oxygen, ozone, permanganic acid.
- Violent reactions with iodine fluoride, ignition with sodium peroxide. Hazardous reactions with concentrated mineral acids, halogens, melted sulphur.
- Dissolves non-polar rubber.

Reactive Groups: Hydrocarbons, Aromatics

10.3 Hazardous decomposition products
Thermal decomposition generates carbon monoxide and carbon dioxide.
Data Reference: From Chemical Reactivity Worksheet tool

Section 11 –TOXICOLOGICAL INFORMATION

11.1 Acute Toxicity:
LD50 Oral - Rat >2000 mg/kg
Source: European Chemicals Agency
https://echa.europa.eu/registration-dossier/-/registered-dossier/16102/7/3/1

LC50 Inhalation - Rat - 13,700 ppm - 4 hr
Source: European Chemicals Agency
https://echa.europa.eu/registration-dossier/-/registered-dossier/16102/7/3/3

11.2 Skin corrosion/irritation: Yes
Causes skin irritation.
Mean scores (Draize et al 1944)
The irritation potential of benzene was assessed on the skins of six shaved rabbits exposed to neat benzene, using an exposure chamber of 6 cm^2.

Time after end of application	Mean Score for Erythema
1H	1.0
24H	2
48H	2.2
72H	2.4
144H	3.0

Source: European Chemicals Agency
https://echa.europa.eu/registration-dossier/-/registered-dossier/16102/7/4/2

11.3 Serious eye damage/irritation: Yes
Causes serious eye irritation.
Instillation of benzene into the rabbit eye caused moderate conjunctival irritation and very slight, transient corneal injury.

Source: European Chemicals Agency
https://echa.europa.eu/registration-dossier/-/registered-dossier/16102/7/4/3

11.4 Respiratory or skin sensitization:
Benzene was not a dermal sensitizer when assessed in a mouse ear swelling test (MEST) and a guinea pig maximization test (GPMT). No evidence of skin sensitization was found in a human maximization test.

There is no evidence from animal experimental studies that benzene is a respiratory sensitizer. There are no reports of human respiratory sensitization to benzene despite more than 100 years of human experience with benzene which was commonly used as a solvent
Source: European Chemicals Agency
https://echa.europa.eu/registration-dossier/-/registered-dossier/16102/7/5/1

11.5 Germ cell mutagenicity:
Benzene is an in vivo mutagen in mammals and Humans, inducing chromosomal aberrations and micronuclei.
Source: European Chemicals Agency
https://echa.europa.eu/registration-dossier/-/registered-dossier/16102/7/7/1

Benzene is genotoxic in humans: a significantly increased frequency of chromatid and isochromatid breaks in the cultured lymphocytes of exposed workers has been reported, as well as a significant increase of peripheral blood lymphocyte chromosomal aberrations.
Source: Pubchem (https://pubchem.ncbi.nlm.nih.gov/)

Induction of chromosomal aberrations in bone-marrow cells from mice, rats, and rabbits treated with single or multiple daily doses of benzene ranging from 0.2 to 2.0 mL/kg per day.
Source: Pubchem (https://pubchem.ncbi.nlm.nih.gov/)

11.6 Carcinogenicity:
Reported to be carcinogenic based on its
IARC, OSHA, ACGIH, NTP, or EPA classification.
Human carcinogen.
IARC: 1 - Group 1: Carcinogenic to humans (Benzene)
NTP: Known to be human carcinogen (Benzene)
OSHA: OSHA specifically regulated carcinogen (Benzene)

11.7 Reproductive toxicity:
Rats exposed to 10, 50, or 500 ppm of Benzene for 7hr/day had low incidence of brain and skeletal defects. Rats exposed continuously to 209.7 ppm for 10 days prior to breeding showed a complete absence of pregnancy. 1/10 rats exposed to 19.8 ppm had resorbed embryos.
Source: Pubchem (https://pubchem.ncbi.nlm.nih.gov/)

Based on the results of a rat single generation toxicity/fertility study and developmental toxicity studies in 3 species, classification of benzene as a reproductive or developmental toxicant is not warranted.
Source: European Chemicals Agency
https://echa.europa.eu/registration-dossier/-/registered-dossier/16102/7/9/1

11.8 STOT- Single exposure:
No data available.

11.9 STOT- repeated exposure:
Repeated exposures to levels of benzene below 200 ppm may cause chronic central nervous system effects.
Repeated exposure to benzene may have effects on the bone marrow, which may result in anemia.
Source: Pubchem (https://pubchem.ncbi.nlm.nih.gov/)

After repeated dose exposure via oral or inhalation routes, benzene causes adverse effects on the hematopoietic system of animals and in humans.
Source: European Chemicals Agency
https://echa.europa.eu/registration-dossier/-/registered-dossier/16102/7/6/1

11.10 Aspiration hazard:
If the liquid is swallowed, aspiration into the lungs may result in chemical pneumonitis.
Source: Pubchem (https://pubchem.ncbi.nlm.nih.gov/)

Section 12 –ECOLOGICAL INFORMATION

12.1 Ecotoxicity data:

Parameter	Route	Species	Values	Exposure period	Condition of bioassay
LC50	Inhalation	*Palaemonetes pugio* (grass shrimp)	27 ppm	96 hours	Not specified
LC50	Inhalation	*Cancer magister* (crab larvae)	108 ppm	96 hours	Not specified

LC50	Inhalation	*Crangon franciscorum* (shrimp)	20 ppm	96 hours	Not specified

Data Reference:
https://pubchem.ncbi.nlm.nih.gov/compound/Benzene#section=Ecotoxicity-Values&fullscreen=true

12.2 Mobility: Highly mobile in soil.

12.3 Persistence and degradability

Benzene is readily biodegradable.

Data Reference: European Union Benzene Risk Assessment (2008)

12.4 Bioaccumulative potential

Benzene has a low to moderate bioaccumulation potential

Data Reference: European Union Benzene Risk Assessment (2008)

12.5 Results of PBT assessment Persistence and Degradation:

Hydrolysis at environmental conditions is not likely due to the lack of reactive functional.

Data Reference: European Union Benzene Risk Assessment (2008)

12.6 Other adverse effects: NA

Environmental Fate: Benzene is expected to have high mobility in soil.

Data Reference: European Union Benzene Risk Assessment (2008)

Section 13– DISPOSAL CONSIDERATION

Local Legislation: Disposal should be in accordance with applicable regional, national, and local laws and regulations. This product should not be dumped, spilled, rinsed or washed into sewers or public waterways.

13.1 Recommended disposal methods for the substance / preparation

Product reuse or disposal in accordance with valid waste legislative regulations.

13.2 Recommended disposal methods for contaminated packaging

Product is transported in tank-vehicles.

13.3 Waste management measures that control exposure of humans and environment

Proceed in accordance with valid health, air and water local legislative regulations.

13.4 Waste regulation

Follow local regulation.

Section 14– TRANSPORT INFORMATION

14.1 International Transport Regulation:
ADR/RID (Road/Rail), IMDG (Sea) and ICAO/IATA (Air)

Proper Shipping Name: BENZENE
Hazard Class: 3 Flammable Liquid
UN Number: 1114
Packing Group: II
Emergency Action Code: 3WE

14.2 Special transport precautionary measures: Not applicable.

Section 15– REGULATORY INFORMATION

(M)SDS format on a 16 Section based on guidance provided in:

Indian Regulation:
Manufacture, Storage and Import of Hazardous Chemicals Rule, 1989.
The Factories Act 1948
International Regulations:
European SDS Directive
ANSI MSDS Standard
ISO 11014-1 1994
WHMIS Requirements
United States
Hazard Communication Standard
Canada
Hazardous Products Act and Controlled Products Regulations
Europe
Dangerous Substance and Preparations Directives
Australia
National Model Regulations for the Control of Workplace Hazardous Substances

The Globally Harmonized System of Classification and Labeling of Chemicals endorsed by The UN Economic and Social Council

*RISK PHRASES: R11 Highly flammable, R23 Toxic by inhalation, R24 Toxic in contact with skin, R25 Toxic if swallowed, R36 Irritating to eyes, R38 Irritating to skin, R45 may cause cancer, R46 May cause heritable genetic damage, R48 Danger of serious damage to health by prolonged exposure, R65 Harmful: may cause lung damage if swallowed, R67 Vapours may cause drowsiness and dizziness.

*SAFETY PHRASES: S45 In case of accident or if you feel unwell, seek medical advice immediately, S53 Avoid exposure – obtain special instruction before use. May cause cancer, flammable, Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.

*These standard risk and safety phrases for use when interpreting (Material) Safety data Sheets are derived from the European Union Regulation, CHIP Regulations - Chemicals (Hazard Information and Packaging for Supply). They are required to be used in (Materials) Safety Data Sheets to identify potential hazards and offer safe handling advice.

Section 16 – OTHER INFORMATION

Training instructions:
Personnel handling the product has to be acquainted demonstrably with its hazardous properties, with health and environmental protection principles related to the product and first aid principles.
Local bodies involved (Applicable only with in India): Local District Authority and Local Crisis Group

(M)SDS Revision Status:

Date of Revision	Revised Sections	Supersedes
Sep. 01, 2009	Format revised	Feb. 01, 2008
Sep. 01, 2011	Section 4 (4.3)	Sep. 01, 2009
Aug. 01, 2013	Section 2 NFPA Hazard statement	Sep. 01, 2011
Feb.01,2016	Section 2,11,12	Aug. 01, 2013
Mar. 07, 2022	Section 2,4,8 (8.1,8.2),9,11,12(12.1)	Feb.01,2016

This MSDS is issued by Jamnagar, Hazira and Vadodara Manufacturing Divisions, Reliance Industries Limited.

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End of (M)SDS