



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

ANNEXURE – 5

MSDS of Hazardous Chemicals

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
<i>For issue</i>	<i>Dr. Ashok Kumar– HOD EHS</i>	<i>Er. T.K. Trehan– Plant In-Charge</i>	<i>Sh. O P Ajmera – ED & CEO</i>
Date:16.02.2022		Revision - 13	Page 1 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
<i>For issue</i>	<i>Dr. Ashok Kumar– HOD EHS</i>	<i>Er. T.K. Trehan– Plant In-Charge</i>	<i>Sh. O P Ajmera – ED & CEO</i>
Date:16.02.2022		Revision - 13	Page 2 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
<i>For issue</i>	<i>Dr. Ashok Kumar– HOD EHS</i>	<i>Er. T.K. Trehan– Plant In-Charge</i>	<i>Sh. O P Ajmera – ED & CEO</i>
Date:16.02.2022		Revision - 13	Page 3 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
<i>For issue</i>	<i>Dr. Ashok Kumar– HOD EHS</i>	<i>Er. T.K. Trehan– Plant In-Charge</i>	<i>Sh. O P Ajmera – ED & CEO</i>
Date:16.02.2022		Revision - 13	Page 4 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

Crown Trade Red Oxide Primer

49

STABILITY

Stable under the recommended storage and handling conditions (see section 7).

CONDITIONS TO AVOID

Protect from frost, heat and sunlight.

MATERIALS TO AVOID

Keep away from oxidising agents and strongly alkaline and strongly acidic materials to prevent the possibility of exothermic reaction.

HAZARDOUS DECOMPOSITION PRODUCTS

In a fire, hazardous decomposition products such as smoke, carbon monoxide, carbon dioxide and oxides of nitrogen may be produced.

11 TOXICOLOGICAL INFORMATION

GENERAL INFORMATION

Exposure to organic solvent vapours in excess of the stated workplace exposure limit may result in adverse effects on the liver renal and central nervous systems.

INHALATION

Exposure through inhalation may result in the following effects: headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

INGESTION

Ingestion may result in the following effects: sore throat, abdominal pain, drowsiness, nausea, vomiting and diarrhoea. Other effects may be described as for exposure to vapours.

SKIN CONTACT

Solvents may cause the above effects by exposure through the skin. Repeated or prolonged contact with the product may lead to removal of natural fats from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

EYE CONTACT

Splashes in the eyes may cause irritation and reversible local damage.

HEALTH WARNINGS

At elevated temperature, may release 2-butanone oxime/ ethyl methyl ketoxime, which is classified as a category 3 carcinogen and as a skin sensitiser.

12 ECOLOGICAL INFORMATION

ECOTOXICITY

These products have been assessed following the conventional method and are not classified as dangerous for the environment but contain substances dangerous for the environment. See section 3 for details. The product should not be allowed to enter drains or watercourses or be deposited where it can affect ground or surface waters. The Air Pollution Control requirements of regulations made under the Environmental Protection Act may apply to the use of this product.

13 DISPOSAL CONSIDERATIONS

GENERAL INFORMATION

When this coating, in its liquid state, as supplied or skinned, becomes a waste, it is categorised as hazardous waste, with code 08 01 11 (list of wastes). Part used containers, not drained and/ or rigorously scraped out and containing dried residues of the supplied coating, are categorised as non-hazardous waste, with code 08 01 12 (list of wastes). Used containers, drained and/ or rigorously scraped out and containing dried residues of the supplied coating, are categorised as non-hazardous waste, with code 15 01 02 or 15 01 04 (list of wastes). If mixed with other wastes, the above waste code may not be applicable.

DISPOSAL METHODS

Do not allow into drains or water courses or dispose of where ground or surface waters may be affected.

14 TRANSPORT INFORMATION



PROPER SHIPPING NAME

PAINT

ENVIRONMENTALLY

No.

HAZARDOUS

SUBSTANCE/MARINE

POLLUTANT

1263

UN NO. ROAD

3

ADR CLASS NO.

Class 3: Flammable liquids.

ADR CLASS

4 / 6

Status	Prepared By	Reviewed & Checked by	Approved by
For issue	Dr. Ashok Kumar – HOD EHS	Er. T.K. Trehan – Plant In-Charge	Sh. O P Ajmera – ED & CEO
Date: 16.02.2022		Revision - 13	Page 5 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
<i>For issue</i>	<i>Dr. Ashok Kumar– HOD EHS</i>	<i>Er. T.K. Trehan– Plant In-Charge</i>	<i>Sh. O P Ajmera – ED & CEO</i>
Date:16.02.2022		Revision - 13	Page 6 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site



Crown Trade Red Oxide Primer

67

SDS NO.

Revision 10

RISK PHRASES IN FULL

- R10 Flammable.
- R20/21 Harmful by inhalation and in contact with skin.
- R22 Harmful if swallowed.
- R21 Harmful in contact with skin.
- R65 Harmful: may cause lung damage if swallowed.
- R38 Irritating to skin.
- R40 Limited evidence of a carcinogenic effect.
- R43 May cause sensitisation by skin contact.
- R66 Repeated exposure may cause skin dryness or cracking.
- R41 Risk of serious damage to eyes.
- R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R67 Vapours may cause drowsiness and dizziness.

DISCLAIMER

The information provided in this safety data sheet is based on the present state of knowledge and current national legislation. It provides guidance on health and safety and environmental aspects and should not be construed as any guarantee of technical performance or suitability for particular applications.

6 / 6

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
For issue	Dr. Ashok Kumar – HOD EHS	Er. T.K. Trehan – Plant In-Charge	Sh. O P Ajmera – ED & CEO
Date: 16.02.2022		Revision - 13	Page 7 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
<i>For issue</i>	<i>Dr. Ashok Kumar– HOD EHS</i>	<i>Er. T.K. Trehan– Plant In-Charge</i>	<i>Sh. O P Ajmera – ED & CEO</i>
Date:16.02.2022		Revision - 13	Page 8 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
<i>For issue</i>	<i>Dr. Ashok Kumar– HOD EHS</i>	<i>Er. T.K. Trehan– Plant In-Charge</i>	<i>Sh. O P Ajmera – ED & CEO</i>
Date:16.02.2022		Revision - 13	Page 9 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

MATERIAL SAFETY DATA SHEET Paint Thinner

Page: 3
Printed: 12/31/2008
Revision: 11/13/2008
Supersedes Revision: 09/25/2008

38

Fire Fighting Instructions

Self-contained respiratory protection should be provided for fire fighters fighting fires in buildings or confined areas. Storage containers exposed to fire should be kept cool with water spray to prevent pressure build-up. Stay away from heads of containers that have been exposed to intense heat or flame.

Flammable Properties and Hazards

Combustible Liquid.

Hazardous Combustion Products

Carbon dioxide, carbon monoxide, smoke, fumes, and/or unburned hydrocarbons.

Extinguishing Media

Use carbon dioxide, dry powder, or foam.

Unsuitable Extinguishing Media

No data available.

6. Accidental Release Measures

Steps To Be Taken In Case Material Is Released Or Spilled

Clean up:

Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind, out of low areas, and ventilate closed spaces before entering. Shut off ignition sources; keep flares, smoking or flames out of hazard area.

Small spills:

Take up with sand, earth or other noncombustible absorbent material and place in a plastic container where applicable.

Large spills:

Dike far ahead of spill for later disposal.

Waste Disposal:

Dispose in accordance with applicable local, state and federal regulations.

7. Handling and Storage

Precautions To Be Taken in Handling

Read carefully all cautions and directions on product label before use. Since empty container retains residue, follow all label warnings even after container is empty. Dispose of empty container according to all regulations. Do not reuse this container.

A static electrical charge can accumulate when this material is flowing through pipes, nozzles or filters, and when it is agitated. A static spark discharge can ignite accumulated vapors particularly during dry weather conditions. Always use proper bonding and grounding procedures.

Precautions To Be Taken in Storing

Keep container tightly closed when not in use. Store in a cool, dry place. Do not store near flames or at elevated temperatures.

Licensed to W.M. Barr and Company

ANSI Z400.1 Format

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
For issue	Dr. Ashok Kumar – HOD EHS	Er. T.K. Trehan – Plant In-Charge	Sh. O P Ajmera – ED & CEO
Date: 16.02.2022		Revision - 13	Page 10 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
<i>For issue</i>	<i>Dr. Ashok Kumar– HOD EHS</i>	<i>Er. T.K. Trehan– Plant In-Charge</i>	<i>Sh. O P Ajmera – ED & CEO</i>
Date:16.02.2022		Revision - 13	Page 11 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

MATERIAL SAFETY DATA SHEET Paint Thinner

Page: 5 *SB*
 Printed: 12/31/2008
 Revision: 11/13/2008
 Supersedes Revision: 09/25/2008

10. Stability and Reactivity

Stability: Unstable [] Stable [X]

Conditions To Avoid - Instability

No data available.

Incompatibility - Materials To Avoid

Incompatible with strong acids, alkalis, and oxidizers such as liquid chlorine and oxygen.

Hazardous Decomposition Or Byproducts

Decomposition may produce carbon monoxide and carbon dioxide.

Hazardous Polymerization: Will occur [] Will not occur [X]

Conditions To Avoid - Hazardous Polymerization

No data available.

11. Toxicological Information

No data available.

Carcinogenicity/Other Information

No data available.

Hazardous Components (Chemical Name)
 Stoddard solvent {Mineral spirits; Aliphatic
 Petroleum Distillates; White spirits}

CAS #	NTP	IARC	ACGIH	OSHA
8052-41-3	n.a.	n.a.	n.a.	n.a.

12. Ecological Information

No data available.

13. Disposal Considerations

Waste Disposal Method

Dispose in accordance with federal, state, and local regulations.

14. Transport Information

LAND TRANSPORT (US DOT)

DOT Proper Shipping Name

Paint Related Material, Not Regulated

Additional Transport Information

For D.O.T. information, contact W.M. Barr Technical Services at 1-800-398-3892.

The supplier may apply one of the following exceptions: Combustible Liquid, Consumer Commodity, Limited Quantity, Viscous Liquid, Does Not Sustain Combustion, or others, as allowed under 49CFR Hazmat Regulations. Please consult 49CFR Subchapter C to ensure that subsequent shipments comply with these exceptions.

15. Regulatory Information

US EPA SARA Title III

Hazardous Components (Chemical Name)
 1. Stoddard solvent {Mineral spirits; Aliphatic
 Petroleum Distillates; White spirits}

CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
8052-41-3	No	No	No	No

SARA (Superfund Amendments and Reauthorization Act of 1986) Lists:

Sec.302:	EPA SARA Title III Section 302 Extremely Hazardous Chemical with TPQ. * indicates 10000 LB TPQ if not volatile.
Sec.304:	EPA SARA Title III Section 304: CERCLA Reportable + Sec.302 with Reportable Quantity. ** indicates statutory RQ.
Sec.313:	EPA SARA Title III Section 313 Toxic Release Inventory. Note: -Cat indicates a member of a chemical category.

Licensed to W.M. Barr and Company

ANSI Z400.1 Format

Status	Prepared By	Reviewed & Checked by	Approved by
For issue	Dr. Ashok Kumar - HOD EHS	Er. T.K. Trehan - Plant In-Charge	Sh. O P Ajmera - ED & CEO
Date: 16.02.2022		Revision - 13	Page 12 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

MATERIAL SAFETY DATA SHEET Paint Thinner

Page: 6
Printed: 12/31/2008
Revision: 11/13/2008
Supersedes Revision: 09/25/2008

63

Sec.110:

EPA SARA 110 Superfund Site Priority Contaminant List

EPA Hazard Categories:

This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections 311/312 as indicated:

- Yes No Acute (immediate) Health Hazard
- Yes No Chronic (delayed) Health Hazard
- Yes No Fire Hazard
- Yes No Sudden Release of Pressure Hazard
- Yes No Reactive Hazard

16. Other Information

Company Policy or Disclaimer

The information contained herein is presented in good faith and believed to be accurate as of the effective date shown above. This information is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. Any use of this data and information must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.

Licensed to W.M. Barr and Company

ANSI Z400.1 Format

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
For issue	Dr. Ashok Kumar – HOD EHS	Er. T.K. Trehan – Plant In-Charge	Sh. O P Ajmera – ED & CEO
Date: 16.02.2022		Revision - 13	Page 13 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
<i>For issue</i>	<i>Dr. Ashok Kumar– HOD EHS</i>	<i>Er. T.K. Trehan– Plant In-Charge</i>	<i>Sh. O P Ajmera – ED & CEO</i>
Date:16.02.2022		Revision - 13	Page 14 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
<i>For issue</i>	<i>Dr. Ashok Kumar– HOD EHS</i>	<i>Er. T.K. Trehan– Plant In-Charge</i>	<i>Sh. O P Ajmera – ED & CEO</i>
Date:16.02.2022		Revision - 13	Page 15 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
<i>For issue</i>	<i>Dr. Ashok Kumar– HOD EHS</i>	<i>Er. T.K. Trehan– Plant In-Charge</i>	<i>Sh. O P Ajmera – ED & CEO</i>
Date:16.02.2022		Revision - 13	Page 16 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
<i>For issue</i>	<i>Dr. Ashok Kumar– HOD EHS</i>	<i>Er. T.K. Trehan– Plant In-Charge</i>	<i>Sh. O P Ajmera – ED & CEO</i>
Date:16.02.2022		Revision - 13	Page 17 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
<i>For issue</i>	<i>Dr. Ashok Kumar– HOD EHS</i>	<i>Er. T.K. Trehan– Plant In-Charge</i>	<i>Sh. O P Ajmera – ED & CEO</i>
Date:16.02.2022		Revision - 13	Page 18 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
<i>For issue</i>	<i>Dr. Ashok Kumar– HOD EHS</i>	<i>Er. T.K. Trehan– Plant In-Charge</i>	<i>Sh. O P Ajmera – ED & CEO</i>
Date:16.02.2022		Revision - 13	Page 19 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

7c



Rosco Laboratories Inc.
52 Harbor View Avenue
Stamford, CT, USA, 06902
Phone: (203) 708 8900

FLUORESCENT PAINT

MSDS No.:5781

MSDS Preparation Date: January 8, 2010

Page 7 of 12

MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product Name : **FLUORESCENT PAINT**
 Fluorescent Paint - Orange — 8 liter

Product Use : Paint

Chemical Family : Mixture

Supplier's name and address:
Rosco Laboratories Inc.
 52 Harbor View Avenue
 Stamford, CT, United States
 06902

24 Hr. Emergency Tel # : (800) 424-9300

HMIS Rating : ★ - Chronic hazard 0 - Minimal 1 - Slight 2 - Moderate 3 - Serious 4 - Severe

Health: * 2 Flammability: 0 Reactivity: 0

WHMIS Classes:



TOXIC

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS #	% (weight)	ACGIH TLV		OSHA PEL	
			TWA	STEL	PEL	STEL
Formaldehyde	50-00-0	0.1 - 1.0	N/Av	N/Av	N/Av	N/Av

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Clear liquid. Pungent odor. Causes skin and eye irritation. Harmful if inhaled or swallowed Possible sensitizer. Contains material which can cause cancer.

POTENTIAL HEALTH EFFECTS

Target organs : None reported by the manufacturer.

Routes of exposure : Inhalation: YES Skin Absorption: YES Skin & Eyes: YES Ingestion: YES

Potential acute health effects :

Eyes: Causes eye irritation. Prolonged or repeated exposure may be harmful to health. May cause conjunctivitis, irritation, and inflammation of mucous membranes. May cause burning sensation, redness and tearing (watering). Possible severe irritation. Contains materials corrosive or severely irritating to the eyes. Temporary vision impairment (cloudy or blurred vision) is possible. Severe irritation, tissue damage, and possible blindness will result from direct contact.

Skin: Irritating to skin. May cause mild to moderate skin irritation. Prolonged or repeated exposure may be harmful to health. Possible irritation, defatting or dermatitis (rash). Components of the product may be absorbed into the body through the skin. May cause central nervous system depression.

Status	Prepared By	Reviewed & Checked by	Approved by
For issue	Dr. Ashok Kumar – HOD EHS	Er. T.K. Trehan – Plant In-Charge	Sh. O P Ajmera – ED & CEO
Date: 16.02.2022		Revision - 13	Page 20 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
<i>For issue</i>	<i>Dr. Ashok Kumar– HOD EHS</i>	<i>Er. T.K. Trehan– Plant In-Charge</i>	<i>Sh. O P Ajmera – ED & CEO</i>
Date:16.02.2022		Revision - 13	Page 21 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
<i>For issue</i>	<i>Dr. Ashok Kumar– HOD EHS</i>	<i>Er. T.K. Trehan– Plant In-Charge</i>	<i>Sh. O P Ajmera – ED & CEO</i>
Date:16.02.2022		Revision - 13	Page 22 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

100



Rosco Laboratories Inc.
52 Harbor View Avenue
Stamford, CT, USA, 06902
Phone: (203) 708 8900

FLUORESCENT PAINT

MSDS No.:5781

MSDS Preparation Date: January 8, 2010

Page 10 of 12

pH	: Not available.	Specific gravity	: 1.07
Boiling point	: -19.39 °C	Coefficient of water/oil distribution	: Not available.
Melting/Freezing point	: Not available.	Solubility in water	: Soluble
Vapor pressure (mmHg @ 20° C / 68° F)	: 1.0 - 760	Evaporation rate (n-Butyl acetate = 1)	: Slower than n-butyl acetate
Vapor density (Air = 1)	: Heavier than air.	Volatiles (% by weight)	: 71.6
Volatile organic Compounds (VOC's) (lbs/gal;g/l)	: 0.72 / 86.25		
Viscosity	: Not available.		
Special Remarks On Fire Hazards	: Not flammable under normal conditions of use. This product will not burn, due to its water content. May spatter if the temperature exceeds the boiling point. Vapors may irritate eyes. May irritate skin.		

SECTION 10 - REACTIVITY AND STABILITY DATA

Stability and reactivity : Stable under normal conditions.
 Hazardous polymerization : Will not occur.
 Conditions to avoid : High temperatures. Keep away from excessive heat, open flames, sparks and other possible sources of ignition. Oxidizing agents. Do not freeze.
 Materials To Avoid And Incompatibility : See Section 7 (Handling and Storage) section for further details.
 Hazardous decomposition products : See hazardous combustion products.

SECTION 11 - TOXICOLOGICAL INFORMATION

Ingredients	LC50(4hr) inh. rat	LD50	
		oral	dermal
Formaldehyde	308 mg/m3/2H (rat), 250 ppm/2H (rat)	100 mg/kg (rat)	300 mg/kg (rabbit)

Toxicological data : Low order of toxicity for normal industrial handling.
 Carcinogenic status : Contains the following chemical(s) classified as ACGIH Group A2 (suspected human carcinogen): formaldehyde.
 : Contains the following chemical(s) listed as Group 1 (Human Carcinogens) by IARC: formaldehyde.
 : Contains the following chemical(s) listed as an Anticipated Carcinogen by NTP: formaldehyde.
 : Contains the following chemical(s) listed as a carcinogen by OSHA: formaldehyde.
 Reproductive effects : Not expected to have other reproductive effects.
 Teratogenicity : Not expected to be a teratogen.
 Mutagenicity : Contains a chemical or chemicals that may be mutagens. This product contains: formaldehyde.
 Reproductive Effects : Not expected to have other reproductive effects.
 Irritancy : Eyes, skin, respiratory system and digestive system. Formaldehyde is an eye and throat irritant and acute toxicant.
 Sensitization to material : Skin and/or respiratory sensitizer.
 Synergistic materials : The product contains an ingredient which may enhance the effect of other carcinogens. This product contains: formaldehyde.
 Components of the product may affect the nervous system.

SECTION 12 - ECOLOGICAL INFORMATION

Environmental effects : None known or reported by the manufacturer.

Status	Prepared By	Reviewed & Checked by	Approved by
For issue	Dr. Ashok Kumar – HOD EHS	Er. T.K. Trehan – Plant In-Charge	Sh. O P Ajmera – ED & CEO
Date: 16.02.2022		Revision - 13	Page 23 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site



Rosco Laboratories Inc.
52 Harbor View Avenue
Stamford, CT, USA, 06902
Phone: (203) 708 8900

FLUORESCENT PAINT

MSDS No.:5781

MSDS Preparation Date: January 8, 2010

Page 11 of 12

Important environmental characteristics

- Ecotoxicological : None known or reported by the manufacturer.
- : No data is available on the product itself.

SECTION 13 - DISPOSAL CONSIDERATIONS

- Handling for Disposal : See Section 7 (Handling and Storage) section for further details.
- Methods of Disposal : Dispose in accordance with all applicable federal, state, provincial and local regulations. Contact your local, state, provincial or federal environmental agency for specific rules. Do not puncture or incinerate. Contact waste disposal services.

SECTION 14 - TRANSPORTATION INFORMATION

Regulatory Information	UN Number	Shipping Name	Class	Packing Group	Label
TDG	None	Not regulated.	Not regulated	-None-	
TDG Additional Information	None.				
49CFR/DOT	None	Not regulated.	Not regulated	-None-	
49CFR/DOT Additional Information	None.				
ICAO/IATA	None	Not regulated.	Not regulated	-None-	
ICAO/IATA Additional Information	None.				
IMDG	None	Not regulated.	Not regulated	-None-	
IMDG Additional Information	None.				

SECTION 15 - REGULATORY INFORMATION

US Federal Information:

All ingredients are listed on the TSCA Inventory, or are exempted materials.
SARA TITLE III: Sec. 313, Toxic Chemicals Notification, 40 CFR 372: This product may be subject to SARA notification requirements, since it contains Toxic Chemical constituents above their de minimus concentrations. This product contains: formaldehyde.
CERCLA Reportable Quantity (RQ) (40 CFR 117.302): formaldehyde: 100 lb, 45.4 kg.

US State Right to Know Laws:

California Proposition 65: This product contains a chemical known to the State of California to cause cancer and/or reproductive harm. This product contains: formaldehyde.

Canadian Regulations:

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).
Canadian WHMIS Classification: D2A, D2B.

Status	Prepared By	Reviewed & Checked by	Approved by
For issue	Dr. Ashok Kumar – HOD EHS	Er. T.K. Trehan – Plant In-Charge	Sh. O P Ajmera – ED & CEO
Date: 16.02.2022		Revision - 13	Page 24 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

12c



Rosco Laboratories Inc.
52 Harbor View Avenue
Stamford, CT, USA, 06902
Phone: (203) 708 8900

FLUORESCENT PAINT

MSDS No.:5781

MSDS Preparation Date: January 8, 2010

Page 12 of 12

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

SECTION 16 - OTHER INFORMATION

- Legend** :
- ACGIH: American Conference of Governmental Industrial Hygienists
 - IARC: International Agency for Research on Cancer
 - N/Ap: not applicable
 - N/Av: not available
 - NIOSH: National Institute of Occupational Safety and Health
 - NTP: National Toxicology Program
 - OSHA: Occupational Safety and Health Administration
- References** :
- Information obtained from sources including original supplier's Material Safety Data Sheet, and references including RTECS and CCOHS Cheminfo.

<p>Prepared for: Rosco Laboratories Inc. 52 Harbor View Avenue Stamford, CT, USA, 06902 Phone: (203) 708 8900 http://http://www.rosco.com/</p>	
<p>Prepared by: ICC The Compliance Center Inc. Canada: 1-888-977-4834 USA: 1-888-442-9628 http://www.thecompliancecenter.com</p>	

DISCLAIMER OF LIABILITY

Every effort has been made to ensure that the safety information on this sheet is accurate, but because Rosco Laboratories, Inc. has no control over the conditions under which the product will be used, liability is limited exclusively to replacement or refund of the purchase price of this product. Except as stated herein, there are no express or implied warranties, including implied warranties of merchantability or fitness for a particular purpose. Rosco Laboratories, Inc. assumes no liability for injury or incidental or consequential damages arising out of storage, handling or use of this product.

Preparation Date: January 8, 2010

END OF DOCUMENT

Status	Prepared By	Reviewed & Checked by	Approved by
For issue	Dr. Ashok Kumar – HOD EHS	Er. T.K. Trehan – Plant In-Charge	Sh. O P Ajmera – ED & CEO
Date: 16.02.2022		Revision - 13	Page 25 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
<i>For issue</i>	<i>Dr. Ashok Kumar– HOD EHS</i>	<i>Er. T.K. Trehan– Plant In-Charge</i>	<i>Sh. O P Ajmera – ED & CEO</i>
Date:16.02.2022		Revision - 13	Page 26 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

MATERIAL SAFETY DATA SHEET

VALVOLINE CUMMINS LTD.

Page: 1 of 7
Date Issued: May 28, 2003
No: 043052003

Valvoline Premium Blue 15W-40

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity

Product Name: Valvoline Premium Blue 15W-40

Company

Valvoline Cummins Ltd.
278, Udyog Vihar, Phase - II
Gurgaon - 122016

Telephone Numbers

Emergency: 91-124 4721200

2. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient(s)	CAS Number	%(by weight)
PARAFFINIC MINERAL OIL	64742-54-7	74.0- 84.0
ENGINE OIL ADDITIVE		8.0- 18.0
ZINC COMPOUNDS		1.0- 6.0

3. HAZARDS IDENTIFICATION

Potential Health Effects

Eye

May cause mild eye irritation.

Skin

Prolonged or repeated contact may dry and crack the skin.

Swallowing

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful.

Inhalation

Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects.

Symptoms of Exposure

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea) irritation (nose, throat, airways).

Target Organ Effects

No data

Status	Prepared By	Reviewed & Checked by	Approved by
For issue	Dr. Ashok Kumar- HOD EHS	Er. T.K. Trehan- Plant In-Charge	Sh. O P Ajmera - ED & CEO
Date: 16.02.2022		Revision - 13	Page 27 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
<i>For issue</i>	<i>Dr. Ashok Kumar– HOD EHS</i>	<i>Er. T.K. Trehan– Plant In-Charge</i>	<i>Sh. O P Ajmera – ED & CEO</i>
Date:16.02.2022		Revision - 13	Page 28 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
<i>For issue</i>	<i>Dr. Ashok Kumar– HOD EHS</i>	<i>Er. T.K. Trehan– Plant In-Charge</i>	<i>Sh. O P Ajmera – ED & CEO</i>
Date:16.02.2022		Revision - 13	Page 29 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

4E

MATERIAL SAFETY DATA SHEET

VALVOLINE CUMMINS LTD.

Page: 4 of 7
Date Issued: May 28, 2003
No: 043052003

Valvoline Premium Blue 15W-40

Storage

Keep containers closed when not in use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection

Not required under normal conditions of use. However, if misting or splashing conditions exist, then safety glasses or chemical splash goggles are advised.

Skin Protection

Not normally required. However, wear resistant gloves such as nitrile rubber to prevent irritation, which may result from, prolonged or repeated skin contact with product.

Respiratory Protections

Not required under normal conditions of use. However, if oil mists are generated above recommended PEL/TLV of 5 mg/m³, then a NIOSH/MSHA approved respirator is advised in absence of proper environmental control. (See your industrial hygienist.)

Engineering Controls

Not required under normal conditions of use. However, if unusual operating conditions exist, then provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below PEL/TLV (s).

Exposure Guidelines Component

PARAFFINIC MINERAL OIL (64742-54-7)
OSHA VPEL 5.000 mg/m³ - TWA
ACGIH TLV 5.000 mg/m³ - TWA

ENGINE OIL ADDITIVE
No exposure limits established

ZINC COMPOUNDS
No exposure limits established

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point

(for component) > 425.0 F (218.3 C)

Vapor Pressure

No data

Status	Prepared By	Reviewed & Checked by	Approved by
For issue	Dr. Ashok Kumar- HOD EHS	Er. T.K. Trehan- Plant In-Charge	Sh. O P Ajmera - ED & CEO
Date: 16.02.2022		Revision - 13	Page 30 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
<i>For issue</i>	<i>Dr. Ashok Kumar– HOD EHS</i>	<i>Er. T.K. Trehan– Plant In-Charge</i>	<i>Sh. O P Ajmera – ED & CEO</i>
Date:16.02.2022		Revision - 13	Page 31 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

68 ←

MATERIAL SAFETY DATA SHEET

VALVOLINE CUMMINS LTD.

Page: 6 of 7
Date Issued: May 28, 2003
No: 043052003

Valvoline Premium Blue 15W-40

Chemical Stability
Stable.

Incompatibility
Avoid contact with: acids, halogenated hydrocarbons, halogens, strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION

No data

12. ECOLOGICAL INFORMATION

No data

13. DISPOSAL CONSIDERATION

Waste Management Information
Dispose of in accordance with all applicable local, state and federal regulations.

14. TRANSPORT INFORMATION

DOT Information - 49 CFR 172.101

DOT Description:
Not Regulated

Container/Mode:
CASES/SURFACE - NO EXCEPTIONS

NOS Component:
None

RQ (Reportable Quantity) - 49 CFR 172.101
Not applicable

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
For issue	Dr. Ashok Kumar – HOD EHS	Er. T.K. Trehan – Plant In-Charge	Sh. O P Ajmera – ED & CEO
Date: 16.02.2022		Revision - 13	Page 32 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
<i>For issue</i>	<i>Dr. Ashok Kumar– HOD EHS</i>	<i>Er. T.K. Trehan– Plant In-Charge</i>	<i>Sh. O P Ajmera – ED & CEO</i>
Date:16.02.2022		Revision - 13	Page 33 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
<i>For issue</i>	<i>Dr. Ashok Kumar– HOD EHS</i>	<i>Er. T.K. Trehan– Plant In-Charge</i>	<i>Sh. O P Ajmera – ED & CEO</i>
Date:16.02.2022		Revision - 13	Page 34 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
<i>For issue</i>	<i>Dr. Ashok Kumar– HOD EHS</i>	<i>Er. T.K. Trehan– Plant In-Charge</i>	<i>Sh. O P Ajmera – ED & CEO</i>
Date:16.02.2022		Revision - 13	Page 35 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site



INDIAN OIL CORPORATION LTD
MARKETING DIVISION, MUMBAI

MATERIAL SAFETY DATA SHEET

PRODUCT INFORMATION :

Trade Name : Servo Superior 20W-40
Name of Manufacturer : Indian Oil Corporation Ltd.
Chemical Nature/Composition : Mineral oil - 80 %wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 20%
End Use : Automotive Lubricating Oil for Crankcase

HAZARDOUS INGREDIENTS : None

FIRE AND EXPLOSION HAZARDS :

Flash Point, °C, COC : 200 Min
Extinguishing Media : Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures : To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA :

Acute oral Toxicity (LD-50) : In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50) : > 5,000 mg/litre

Eye Irritation : May be irritant

EMERGENCY FIRST AID PROCEDURES :

Eyes : Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin : Wash with soap and water.
Ingestion : Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation : Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION :

Ventilation : Mechanical ventilation recommended.
Cloves : Neoprene or nitrile rubber gloves recommended.
Goggles : Chemical splash goggles.
Others : Use apron also.

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
For issue	Dr. Ashok Kumar – HOD EHS	Er. T.K. Trehan – Plant In-Charge	Sh. O P Ajmera – ED & CEO
Date: 16.02.2022		Revision - 13	Page 36 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
<i>For issue</i>	<i>Dr. Ashok Kumar– HOD EHS</i>	<i>Er. T.K. Trehan– Plant In-Charge</i>	<i>Sh. O P Ajmera – ED & CEO</i>
Date:16.02.2022		Revision - 13	Page 37 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

19

SAFETY DATA SHEET

1. CHEMICAL IDENTITY

CHEMICAL NAME	Diesel	CHEMICAL CLASSIFICATION	Petroleum Hydrocarbon
SYNONYMS	Gas Oil	TRADE NAME	HSD
FORMULA	Complex mixture of hydrocarbon	C.A.S. No.	NA
U.N.No.	1202	REGULATED IDENTIFICATION	NA
SHIPPING NAME	Diesel	HAZCHEM No.	3Y
CODES/LABEL	RED -Flammable liquid		
HAZARDOUS WASTE I.D. NO.	5		
HAZARDOUS INGREDIENTS	C.A.S. No.	HAZARDOUS INGREDIENTS	C.A.S. No.
1.	NA	2.	

2. PHYSICAL AND CHEMICAL DATA

BOILING RANGE / POINT °C	150 - 400	PHYSICAL STATE	Liquid
APPEARANCE	Light Brown	MELTING/FREEZING POINT °C	- 46 to 18
VAPOUR PRESSURE @ 38°C, mm/Hg	< 1	ODOUR	Diesel like
VAPOUR DENSITY (AIR = 1)	3 to 5	SOLUBILITY IN WATER @ 30	Insoluble
OTHERS	NA	SPECIFIC GRAVITY -20°C	0.81 - 0.91
PH	NA		

3. FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY	Moderate	LEL %	.7
FLASH POINT °C	32 to 96	AUTO IGNITION TEMPERATURE °C	256.6
TDG FLAMMABILITY	NA	UEL %	5.0
EXPLOSION SENSITIVITY TO IMPACT	NO	EXPLOSION SENSITIVITY TO STATIC ELECTRICITY	Dangerous
HAZARDOUS COMBUSTION PRODUCTS	CO on incomplete combustion may be produced.	HAZARDOUS POLYMERISATION	NO
COMBUSTIBLE LIQUID	YES	EXPLOSIVE MATERIAL	NO
CORROSIVE MATERIAL	NO	FLAMMABLE MATERIAL	YES
OXIDISER	NO	OTHERS	Nil
PYROPHORIC MATERIAL	NO	ORGANIC PEROXIDE	NO

4. REACTIVE DATA

CHEMICAL STABILITY	Stable
INCOMPATIBILITY WITH OTHER MATERIAL	Strong oxidizing agents. Keep away from heat and open flame.
REACTIVITY	No
HAZARDOUS REACTION PRODUCTS	No

Status	Prepared By	Reviewed & Checked by	Approved by
For issue	Dr. Ashok Kumar – HOD EHS	Er. T.K. Trehan – Plant In-Charge	Sh. O P Ajmera – ED & CEO
Date: 16.02.2022		Revision - 13	Page 38 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

267

5. HEALTH HAZARD DATA

ROUTES OF ENTRY	Inhalation, Ingestion and Absorption.		
EFFECTS OF EXPOSURE / SYMPTOMS	INHALATION: Headache, dizziness, difficulty in breathing, loss of consciousness. INGESTION: Causes nausea and vomiting. ABSORPTION: Irritating to skin and eyes.		
TREATMENT	INHALATION: Remove victim to fresh air, give artificial respiration or oxygen if breathing is labored. INGESTION: Do not induce vomiting, give liquid paraffin or vegetable oil. CONTACT: Remove contaminated cloths, wash effected body parts with plenty of water.		
TLV(ACGIH)	5mg/m ³ (Inhalation)	STEL	10mg/m ³
PERMISSIBLE EXPOSURE LIMIT	NA	ODOUR THRESHOLD	0.1ppm
LD ₅₀			
NEPA HAZARD SIGNALS	HEALTH 0	FLAMMABILITY 2	STABILITY 0
	SPECIAL	NO	

5. PREVENTIVE MEASURES

PERSONNEL PROTECTIVE EQUIPMENT	EYES : Goggles/ face shield. RESPIRATORY : Self contained Breathing apparatus for contaminants/ clean up. HAND : Rubber gloves. Body : Rubber clothing.
--------------------------------	--

7. EMERGENCY AND FIRST AID MEASURE

FIRE EXTINGUISHING MEDIA	FIRE SPECIAL PROCEDURES UNUSUAL HAZARDS	Foam, DCP, CO ₂ , water may be ineffective and cause fire to spread. May be used to cool fire exposed containers. Apply water as far a distance as possible. If leak or spill has not ignited use water spray to disperse vapor and to protect men attempting leak. Water may be used to flush spills away from exposures. Flashback may occur along vapor trail. Vapor may explode if ignited in an enclosed area.
EXPOSURE FIRST AID MEASURES		INHALATION: Remove the victim to fresh air. Give artificial respiration. Prevent being overcome by high vapor concentration.

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
For issue	Dr. Ashok Kumar – HOD EHS	Er. T.K. Trehan – Plant In-Charge	Sh. O P Ajmera – ED & CEO
Date: 16.02.2022		Revision - 13	Page 39 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
<i>For issue</i>	<i>Dr. Ashok Kumar– HOD EHS</i>	<i>Er. T.K. Trehan– Plant In-Charge</i>	<i>Sh. O P Ajmera – ED & CEO</i>
Date:16.02.2022		Revision - 13	Page 40 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
<i>For issue</i>	<i>Dr. Ashok Kumar– HOD EHS</i>	<i>Er. T.K. Trehan– Plant In-Charge</i>	<i>Sh. O P Ajmera – ED & CEO</i>
Date:16.02.2022		Revision - 13	Page 41 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

24



The Chemical Company

Material Safety Data Sheet GLENIUM B 233

Version BCCI - 02
Revision Date 15 September 2010

Fire and explosion protection
Storage

No special measures required.
Keep tightly sealed; store in shaded area and away from direct sunlight. Protect from extremes heat and cold.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits
Engineering controls

Not available
Natural ventilation is adequate under normal use conditions. Keep containers closed when not in use.

Personal Protective equipment
Respiratory protection
Eye protection
Skin protection

Not normally required. Avoid mist
Safety goggles.
Impervious protective hand gloves or barrier cream. General protective clothing such as overalls or long pants and a long sleeve shirt or a chemical apron. Remove contaminated clothing as soon as possible. Launder thoroughly before reusing. For large spills or ponded areas impervious footwear is preferred
Observe the usual precautions when handling chemicals.
Wash hands before breaks and after finishing work. Do not eat, drink or smoke at workplace.

Other

Industrial Hygiene

9. PHYSICAL AND CHEMICAL PROPERTIES

Form
Color
Odor
Change in physical state
Boiling point
Melting point
Flash Point
Auto-ignition temperature
Thermal decomposition
Specific gravity (25°C)
Vapor pressure, mbar
Viscosity (25°C)
pH
Solubility in water

Liquid
Light brown
Characteristics
> 100°C
Not applicable
Not applicable
Not applicable
Not determined
= 1.2
Not determined
= 50- 150 cps
6 - 9
Soluble

10. STABILITY AND REACTIVITY

Hazardous decomposition products

Hazardous reactions

Stable under normal storage conditions. No hazardous reactions and decomposition products are formed.
None known

11. INFORMATION ON TOXICITY

In our experience and according to the information available to us the product is not harmful to health provided it is handled and used in accordance with given recommendations.

Page 2 of 3

Status	Prepared By	Reviewed & Checked by	Approved by
For issue	Dr. Ashok Kumar – HOD EHS	Er. T.K. Trehan – Plant In-Charge	Sh. O P Ajmera – ED & CEO
Date: 16.02.2022		Revision - 13	Page 42 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
<i>For issue</i>	<i>Dr. Ashok Kumar– HOD EHS</i>	<i>Er. T.K. Trehan– Plant In-Charge</i>	<i>Sh. O P Ajmera – ED & CEO</i>
Date:16.02.2022		Revision - 13	Page 43 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
<i>For issue</i>	<i>Dr. Ashok Kumar– HOD EHS</i>	<i>Er. T.K. Trehan– Plant In-Charge</i>	<i>Sh. O P Ajmera – ED & CEO</i>
Date:16.02.2022		Revision - 13	Page 44 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
<i>For issue</i>	<i>Dr. Ashok Kumar– HOD EHS</i>	<i>Er. T.K. Trehan– Plant In-Charge</i>	<i>Sh. O P Ajmera – ED & CEO</i>
Date:16.02.2022		Revision - 13	Page 45 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

31

Conditions to Avoid: Temperatures (°C) below 0°.
Materials to Avoid: Strong oxidising agents. Strong acids. Strong alkalis.

11: TOXICOLOGICAL INFORMATION

Oral toxicity: Mice (Female) LD50, 5/0 mg/kg.

Health Effects

On Eyes: May cause transient irritation.
On Skin: Unlikely to cause harm on brief or occasional contact.
By Inhalation: Low volatility makes inhalation unlikely at ambient temperatures.
By Ingestion: Low order acute toxicity. May cause irritation of mouth, throat and digestive tract.
Chronic: None known.

12: ECOLOGICAL INFORMATION

Environmental Assessment: When used and disposed of as intended, no adverse environmental effects are foreseen.
Mobility: Mobile liquid. Soluble in water.
Persistence and Degradability: Expected to be not readily biodegradable.
Bioaccumulative Potential: Not expected to be bioaccumulative.
Ecotoxicity: Expected to be ecotoxic to fish/daphnia/algae.

13: DISPOSAL CONSIDERATIONS

Disposal must be in accordance with local and national legislation.
Unused Product: Dispose of through an authorised waste contractor to a licensed site.
Used/Contaminated Product: As for unused product.
Packaging: The method of disposal must be acceptable to the local authority.

14: TRANSPORT INFORMATION

UN/ST Number: 3099
IMO: Class: 5.1/6.1 Packing Group: III Marine Pollutant: No
IATA/ICAO: Class: 5.1/6.1 Packing Group: III
ADR: Class: 5.1 Item: 30 (c)
Transport Name: Oxidizing liquid, toxic, nos. (Sodium nitrite solution)
Hazchem/Kemler Code: 2W / 56

15: REGULATORY INFORMATION

Hazard Label Data:

Named Ingredients: Sodium nitrite solution
UN Number: 3099
Symbol (s): T,O

Issue No: 02 Date: 01.10.1996 Product Name: CONPLAST NC Page 3 of 4

Status	Prepared By	Reviewed & Checked by	Approved by
For issue	Dr. Ashok Kumar – HOD EHS	Er. T.K. Trehan – Plant In-Charge	Sh. O P Ajmera – ED & CEO
Date: 16.02.2022		Revision - 13	Page 46 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

41

Risk Phrases: Toxic if swallowed.
Contact with combustible material may cause fire.

Safety Phrases: Keep away from combustible material.
Wear suitable protective clothing, gloves and eye/face protection.
In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

EC Directives: Dangerous Substances Directive, 67/548/EEC and adaptations.
Dangerous Preparations Directive, 88/379/EEC.
Safety Data Sheets Directive, 91/155/EEC.

Statutory Instruments: Chemicals (Hazard Information and Packaging for Supply) (Amendment) Regs 1996 (SI 1092)
Control of Substances Hazardous to Health Regs. 1994 (SI 3246).

The above publications are available from HMSO

16: OTHER INFORMATION

The data and advice given apply when the product is used for the stated application or applications. The product is not sold as suitable for any other application. Use of the product for applications other than as stated in this sheet may give rise to risks not mentioned in this sheet. The product should not be used other than for the stated application or applications without seeking advice from Fosroc.

If this product has been purchased for supply to a third party for use at work; it is the purchaser's duty to take all necessary steps to secure that any person handling or using the product is provided with the information in this sheet.

It is the responsibility and duty of the employer to inform employees and others who may be affected of any hazards described in this sheet and of any precautions, which should be taken.

This sheet does not constitute or substitute for the users own assessment of workplace risk, as required by other health and safety legislation.

Further copies of this Safety Data Sheet may be obtained from Fosroc

Issue No: 02

Date: 01.10.1996

Product Name: CONPLAST NC

Page 4 of 4

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
For issue	Dr. Ashok Kumar – HOD EHS	Er. T.K. Trehan – Plant In-Charge	Sh. O P Ajmera – ED & CEO
Date: 16.02.2022		Revision - 13	Page 47 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
<i>For issue</i>	<i>Dr. Ashok Kumar– HOD EHS</i>	<i>Er. T.K. Trehan– Plant In-Charge</i>	<i>Sh. O P Ajmera – ED & CEO</i>
Date:16.02.2022		Revision - 13	Page 48 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
<i>For issue</i>	<i>Dr. Ashok Kumar– HOD EHS</i>	<i>Er. T.K. Trehan– Plant In-Charge</i>	<i>Sh. O P Ajmera – ED & CEO</i>
Date:16.02.2022		Revision - 13	Page 49 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

3J

Relative density/Specific Gravity: Not available.
 Viscosity: Kinematic: 8 mm²/s (8 cSt) at 40°C

10. Stability and reactivity

Stability: The product is stable.
Conditions to Avoid: Avoid extreme temperatures, strong oxidizers, fire.
Incompatibility with various substances/Hazardous Reactions: Reactive or incompatible with the following materials: oxidizing materials.
Hazardous polymerization: Will not occur.
Hazardous Decomposition Products: These products are carbon oxides.

11. Toxicological information

Effects and symptoms
Eyes: Unlikely to cause more than transient stinging or redness if accidental eye contact occurs.
Skin: Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis.
Inhalation: Inhalation of oil mist or vapours at elevated temperatures may cause respiratory irritation.
Ingestion: Unlikely to cause harm, if accidentally swallowed in small doses, though larger quantities may cause nausea and diarrhoea.
Chronic toxicity
Carcinogenic effects: No component of this product at levels greater than or equal to 0.1% is identified as a carcinogen by ACGIH, the International Agency for Research on Cancer (IARC), the European Commission (EC), or the National Occupational Health and Safety Commission (Australia).

12. Ecological information

Ecotoxicity: Not classified as environmentally hazardous in accordance with the 'Approved Criteria for Classifying Hazardous Substances' (NOHSC (1008)2004 as amended and adapted).
Biodegradability:
Persistence/degradability: The biodegradability of this material has not been determined.

13. Disposal considerations

Disposal Consideration / Waste information: Avoid contact of spilled material and runoff with soil and surface waterways. Consult an environmental professional to determine if local, regional or national regulations would classify spilled or contaminated materials as hazardous waste. Use only approved transporters, recyclers, treatment, storage or disposal facilities. Dispose of in accordance with all applicable local and national regulations.
Special Precautions for Landfill or Incineration: No additional special precautions identified.

14. Transport information

Not classified as dangerous for transport (ADG, IMDG, ICAO/IATA).
Special precautions for user: No known special precautions required. See Section: "Handling and storage" for additional information.

15. Regulatory information

Standard for the Uniform Scheduling of Drugs and Poisons

Not regulated.

Control of Scheduled Carcinogenic Substances

Ingredient name

Schedule

No listed substance

Other Classification information

Other regulations

Inventories

Europe inventory: All components are listed or exempted.
United States inventory (TSCA 8b): All components are listed or exempted.
Australia inventory (AICS): All components are listed or exempted.
Canada inventory: All components are listed or exempted.
China inventory (IECSC): All components are listed or exempted.

Product name Transformer Oil

Product code 461633-AU01

Page: 3/4

Status	Prepared By	Reviewed & Checked by	Approved by
For issue	Dr. Ashok Kumar – HOD EHS	Er. T.K. Trehan – Plant In-Charge	Sh. O P Ajmera – ED & CEO
Date: 16.02.2022		Revision - 13	Page 50 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

47

Japan inventory (ENCS): All components are listed or exempted.
 Korea inventory (KECI): All components are listed or exempted.
 Philippines inventory (PICCS): All components are listed or exempted.

16 . Other information

Key to abbreviations

AMP = Acceptable Maximum Peak
 ACGIH = American Conference of Governmental Industrial Hygienists, an agency that promulgates exposure standards.
 ADG = Australian Code for the Transport of Dangerous Goods by Road and Rail
 ADG Code = Australian Code for the Transport of Dangerous Goods by Road and Rail
 CAS Number = Chemical Abstracts Service Registry Number
 HAZCHEM Code = Emergency action code of numbers and letters which gives information to emergency services. Its use is required by the ADG Code for Dangerous Goods in bulk.
 ICAO = International Civil Aviation Organization.
 IATA = International Air Transport Association, the organization promulgating rules governing shipment of goods by air.
 IMDG = International Maritime Organization Rules; rules governing shipment of goods by water.
 IP 346 = A chemical screening assay for dermal toxicity. The European Commission has recommended that Method IP 346 be used as the basis for labeling certain lubricant oil base stocks for carcinogenicity. The EU Commission has stipulated that the classification as a carcinogen need not apply if it can be shown that the substance contains less than 3% DMSO extract as measured by IP 346. (See Note L, European Commission Directive 67/548/EEC as amended and adapted.) DMSO is a solvent.
 NOHSC = National Occupational Health & Safety Commission, Australia
 TWA = Time weighted average
 STEL = Short term exposure limit
 UN Number = United Nations Number, a four digit number assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods.

History

Date of issue 20/07/2007.
 Date of previous issue No Previous Validation.
 Prepared by Product Stewardship

Notice to reader

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from us.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The BP Group shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken.

Product name Transformer Oil

Product code 461633-AU01

Page: 4/4

Status	Prepared By	Reviewed & Checked by	Approved by
For issue	Dr. Ashok Kumar – HOD EHS	Er. T.K. Trehan – Plant In-Charge	Sh. O P Ajmera – ED & CEO
Date: 16.02.2022		Revision - 13	Page 51 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

IK



The Chemical Company

Material Safety Data Sheet RHEOBUILD SP1

Version BCCI - 02
Revision Date 15 September 2010

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name **RHEOBUILD SP1**
 Manufacturer **BASF Construction Chemical India Pvt. Ltd.**
C-68, MIDC, Thane Belapur Road,
Turbhe, Navi Mumbai - 400 613
Telephone No : +91-22-41577777
Fax No : 91-22-41577766
 Emergency Contact No : +91-22-67917217

2. HAZARDS IDENTIFICATION

No hazards known. If the product adheres to skin, irritation may occur after drying.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical characterization Aqueous solution containing sodium salts of sulphonated polymers, preservatives and water soluble salts.
 Hazardous Ingredients None

4. FIRST AID MEASURES

Eye contact Flush immediately with plenty of water for at least 15 minutes. If irritation persists, get medical attention.
 Skin contact Remove contaminated clothes immediately. Wash affected area with soap and plenty of water.
 Inhalation Remove affected person to fresh air. If Symptoms persist obtain medical attention.

5. FIRE FIGHTING MEASURES

Suitable Extinguish media Water spray, dry extinguishing media, carbon dioxide or universal foams
 Contaminated extinguishing water must be disposed of in accordance with local regulations.
 Combustion products None. Product is non-combustible.

6. ACCIDENTAL RELEASE MEASURE

After spillage/leakage Wipe up with absorbent tissues, sand or cloth. Remove any spill residues with small amount of water. Dispose according to local regulations.
 Environmental precautions Do not discharge product into natural waters without pr-treatment.

7. HANDLING AND STORAGE

Handling No special measures required.

Page 1 of 3

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
For issue	Dr. Ashok Kumar – HOD EHS	Er. T.K. Trehan – Plant In-Charge	Sh. O P Ajmera – ED & CEO
Date: 16.02.2022		Revision - 13	Page 52 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
<i>For issue</i>	<i>Dr. Ashok Kumar– HOD EHS</i>	<i>Er. T.K. Trehan– Plant In-Charge</i>	<i>Sh. O P Ajmera – ED & CEO</i>
Date:16.02.2022		Revision - 13	Page 53 of 54



MPCL HYDRO POWER LIMITED

Doc. No. IMS-001-8.2

Title: Emergency Notification and Response Plan for MPCL Site

<u>Status</u>	<u>Prepared By</u>	<u>Reviewed & Checked by</u>	<u>Approved by</u>
<i>For issue</i>	<i>Dr. Ashok Kumar– HOD EHS</i>	<i>Er. T.K. Trehan– Plant In-Charge</i>	<i>Sh. O P Ajmera – ED & CEO</i>
Date:16.02.2022		Revision - 13	Page 54 of 54