
1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Code	43040186
Trade Name	ShiPLEY BPR Stripper
Manufacturer/Supplier	ShiPLEY Company
Address	455 Forest St. Marlborough, Massachusetts 01752
Phone Number	(508) 481-7950
Emergency Phone Number	(508) 481-7950
Chemtrec #	(800) 424-9300
MSDS first issued	13 December 2001
MSDS data revised	
Prepared By:	Environmental, Health & Safety Department
Local Sales Company	ShiPLEY Company, 455 Forest Street, Marlboro, MA 01752 (508-481-7950)

2. COMPOSITION/INFORMATION ON THE INGREDIENTS

Components without CAS numbers are Trade Secret

Component Name	CAS# / Codes	Concentration
1-methyl-2-pyrrolidinone	872-50-4	92.00 - 97.00
Pyrrolidinone Compound		3.00 - 8.00

3. HAZARD IDENTIFICATION

Main Hazards	- Irritant - Combustible - Skin - Eye - Respiratory System
Routes of Entry	Inhalation, ingestion, eye and skin contact, absorption.
Carcinogenic Status	Not considered carcinogenic by NTP, IARC and OSHA
Target Organs	- Skin - Eye - Respiratory System
Health Effects - Eyes	Liquid or vapor may cause conjunctival irritation and transient corneal damage.
Health Effects - Skin	Material may cause slight irritation on prolonged or repeated contact. Skin absorption may be a significant route for exposure. Repeated or prolonged contact may produce defatting of the skin leading to irritation and dermatitis.
Health Effects - Ingestion	Swallowing may have the following effects: - irritation of mouth, throat and digestive tract - nausea - vomiting
Health Effects - Inhalation	Exposure to vapor may have the following effects:

3. HAZARD IDENTIFICATION

- irritation of nose, throat and respiratory tract

4. FIRST AID MEASURES

First Aid - Eyes	Immediately flush the eye with plenty of water for at least 15 minutes, holding the eye open. Obtain medical attention if soreness or redness persists.
First Aid - Skin	Wash skin with water. Continue washing for at least 15 minutes. Obtain medical attention if blistering occurs or redness persists.
First Aid - Ingestion	Wash out mouth with water. Have victim drink 1-3 glasses of water to dilute stomach contents. Induce vomiting. Obtain medical attention. Never administer anything by mouth if a victim is losing consciousness, is unconscious or is convulsing.
First Aid - Inhalation	Remove from exposure. If there is difficulty in breathing, give oxygen. Seek medical attention if symptoms persist.
Advice to Physicians	Treat symptomatically.

5. FIRE FIGHTING MEASURES

Extinguishing Media	Use water spray, foam, dry chemical or carbon dioxide. Keep containers and surroundings cool with water spray.
Special Fire-Fighting Procedures	This product may give rise to hazardous vapors in a fire. Vapors can travel a considerable distance to a source of ignition and result in flashback.
Unusual Fire & Explosion Hazards	Pressure may build up in closed containers with possible liberation of combustible vapors.
Protective Equipment for Fire-Fighting	Wear full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures	Contain and absorb using earth, sand or other inert material. Transfer into suitable containers for recovery or disposal. Finally flush area with plenty of water.
Personal Precautions	Wear appropriate protective clothing. Wear respiratory protection. Eliminate all sources of ignition.

6. ACCIDENTAL RELEASE MEASURES

Environmental Precautions Prevent the material from entering drains or water courses.

7. HANDLING AND STORAGE

Handling Use local exhaust ventilation. Avoid contact with eyes, skin and clothing. Keep container tightly closed when not in use.

Storage Store in original containers. Store away from sources of heat or ignition. Storage area should be:
- cool - dry - well ventilated - out of direct sunlight

Other
None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Standards

1-methyl-2-pyrrolidinone An exposure limit of 25ppm is recommended. Can be absorbed through skin. An exposure limit of 75ppm is recommended. (15min)

Engineering Control Measures

Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure, mechanical ventilation (local exhaust), and control of process conditions.

Respiratory Protection

Respiratory protection if there is a risk of exposure to high vapor concentrations. The specific respirator selected must be based on the airborne concentration found in the workplace and must not exceed the working limits of the respirator.

Hand Protection

Butyl rubber gloves. Other chemical resistant gloves may be recommended by your safety professional.

Eye Protection

Chemical goggles.

Body Protection

Normal work wear.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State Liquid
Color Natural, slightly white
Odor Mild Amine
VOC (g/l) 1030
Specific Gravity 1.03
pH Not applicable.
Boiling Range/Point (°C/F) 202/396

9. PHYSICAL AND CHEMICAL PROPERTIES

Flash Point (PMCC) (°C/F)	88 / 190
Explosion Limits (%)	Lower limit 0.99
Solubility in Water	Completely soluble.
Vapor Density (Air = 1)	Heavier than air.
Evaporation Rate	Slower than ether
Vapor Pressure	1-methyl-2-pyrrolidone: 0.5 at 25 °C.

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions.
Conditions to Avoid	- High temperatures - Static discharge
Incompatibilities	- Oxidizing agents - Acids - Reducing agents
Hazardous Polymerization	Will not occur.
Hazardous Decomposition Products	- carbon monoxide - carbon dioxide - oxides of nitrogen

11. TOXICOLOGICAL INFORMATION

Acute Data	1-methyl-2-pyrrolidone: Dermal LD50 (rat) 8000mg/kg. Oral LD50 (rat) 3914mg/kg.
Chronic/Subchronic Data	In a 2 year inhalation study, NMP did not cause any life-shortening or carcinogenic effects in rats at 0.04 or 0.4 mg/l (10 and 100 ppm respectively).
Genotoxicity	NMP was not mutagenic when tested in bacterial or mammalian systems.
Reproductive/Developmental Toxicity	In experimental studies with rats and mice, NMP was embryotoxic by oral and intraperitoneal routes at very high dose levels close to the LD50. In a dermal exposure study with rats, NMP was only embryotoxic at the high dose levels attributed to maternal toxicity. Several inhalation studies in rats did not reveal any indication of maternal or embryo toxicity.
Additional Data	None known.

12. ECOLOGICAL INFORMATION

Mobility	The product will dissolve rapidly in water. The product is poorly absorbed onto soils or sediments. The product will leach into soil.
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12. ECOLOGICAL INFORMATION

Persistence/Degradability	The product is expected to be readily biodegradable.
Bio-accumulation	Product is not expected to bioaccumulate.
Ecotoxicity	The product may be harmful to aquatic organisms.

13. DISPOSAL CONSIDERATIONS

Product Disposal	Incineration is the recommended method of disposal. Dispose of in accordance with all applicable local and national regulations.
Container Disposal	Labels should not be removed from containers until they have been cleaned. Empty containers may contain hazardous residues. Dispose of containers with care.

14. TRANSPORT INFORMATION

DOT Ground:	Not Regulated per 49 CFR 173.150(f)(2)
UN Proper Shipping Name	Not Regulated
UN Class	Not applicable.
UN Number	Not applicable.
UN Packaging Group	Not applicable.
N.O.S. 1:	Not applicable.
N.O.S. 2:	Not applicable.
Subsidiary Risks	None.
CERCLA RQ	None.
Marine Pollutant	No.

15. REGULATORY INFORMATION

TSCA Listed	All components of this product are listed on the U.S. Toxic Substances Control Act Chemical Inventory (TSCA Inventory) or are exempted from listing because a Low Volume Exemption has been granted in accordance with 40 CFR 723.50.
TSCA Exemptions	
TSCA Sec.12(b) Export Notification	U.S. exporters of this product are required to notify the U.S. Environmental Protection Agency (EPA) that a regulated substance(s) is leaving the U.S. market. This product contains the following substance(s) which are subject to Section 12(b) export notification: - 1-Methyl-2-pyrrolidinone (CAS# 872-50-4)
WHMIS Classification	B.3, D.2.B.

15. REGULATORY INFORMATION

California Proposition 65	This product contains the following chemicals that have been found by the State of California to cause cancer, birth defects or other reproductive harm: - 1-methyl-2-pyrrolidinone
SARA TITLE III-Section 311/312 Categorization (40 CFR 370)	Immediate, delayed health hazard
SARA TITLE III-Section 313 (40 CFR 372)	This product contains a chemical which is listed in Section 313 at or above de minimis concentrations. The following listed chemicals are present (quantity present is found elsewhere on this MSDS): - 1-methyl-2-pyrrolidinone (872-50-4)

16. OTHER INFORMATION

NFPA Rating- FIRE	2
NFPA Rating- HEALTH	1
NFPA Rating- REACTIVITY	0
NFPA Rating- SPECIAL	None.

**Revisions Highlighted
Abbreviations**

CAS#:	Chemical Abstract Services Number
ACGIH:	American Conference of Governmental Industrial Hygienists
OSHA:	Occupational Safety and Health Administration
TLV:	Threshold Limit Value
PEL:	Permissible Exposure Limit
STEL:	Short Term Exposure Limit
NTP:	National Toxicology Program
IARC:	International Agency for Research on Cancer
R:	Risk
S:	Safety
LD50:	Lethal Dose 50%
LC50:	Lethal Concentration 50%
BOD:	Biological Oxygen Demand
Koc:	Soil Organic Carbon Partition Coefficient.
TLm:	Median Tolerance Limit
TLm:	Median Tolerance Limit

Disclaimer

The data contained herein is based on information that Shibley Company believes to be reliable, but no expressed or implied warranty is made with regard to the accuracy of such data or its suitability for a given situation. Such data relates only to the specific product described and not to such products in combination with any other product and no agent of Shibley Company is authorized to vary any of such data. Shibley Company and its agents disclaim all liability for any action taken or foregone on reliance upon such data.