

Safety Data Sheet

Material Name: Pattern Release 202

SDS ID: NEPI-003

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name

Pattern Release 202

Product Use

Used in preparing molds

Restrictions on Use

None reported.

Manufacturer Information

National Engineering Products, Inc.
5110 Ridgfield Road, Suite 411
Bethesda, MD 20816
Phone: 301-656-1688, Fax: 301-907-8948
Emergency Phone #: 202-526-6274
E-mail: nepi.customerservice@gmail.com

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.

Flammable Aerosols - Category 1

Acute Toxicity - Oral - Category 4 (46.982% unknown)

Skin Corrosion/Irritation - Category 2

Serious Eye Damage/Eye Irritation - Category 2A

Carcinogenicity - Category 1B

Specific Target Organ Toxicity - Single Exposure - Category 1 (central nervous system, respiratory system)

Specific Target Organ Toxicity - Single Exposure - Category 3

Specific Target Organ Toxicity - Repeated Exposure - Category 1 (central nervous system,liver)

GHS Label Elements

Symbol(s)



Signal Word

Danger

Hazard Statement(s)

Extremely flammable aerosol

Harmful if swallowed

Causes skin irritation

Causes serious eye irritation

May cause cancer

Causes damage to organs

Safety Data Sheet

Material Name: Pattern Release 202

SDS ID: NEPI-003

May cause drowsiness or dizziness

Causes damage to organs through prolonged or repeated exposure

Precautionary Statement(s)

Prevention

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood

Keep away from heat/sparks/open flame/hot surfaces - No smoking

Pressurized container: Do not pierce or burn, even after use

Do not spray on an open flame or other ignition sources

Use only outdoors or in a well-ventilated area

Wear protective gloves/protective clothing/eye protection/face protection

Do not breathe dust/fume/gas/mist/vapours/spray

Wash thoroughly after handling

Do not eat, drink or smoke when using this product

Response

If exposed: Call a POISON CENTER or doctor/physician

IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing

Call a POISON CENTER or doctor if you feel unwell

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

If eye irritation persists: Get medical advice/attention

IF ON SKIN: Wash with plenty of soap and water

If skin irritation occurs: Get medical advice/attention

Take off contaminated clothing and wash before reuse

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Rinse mouth

Specific treatment (see label)

Storage

Store in a well-ventilated place. Keep container tightly closed

Store in a secure area

Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations

Other Hazards

No additional information available.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
75-09-2	Methylene chloride	30-60
8009-03-8	Petroleum jelly	1-5
68476-86-8	Petroleum gases, liquefied, sweetened	30-60

Safety Data Sheet

Material Name: Pattern Release 202

SDS ID: NEPI-003

Section 4 - FIRST AID MEASURES

Description of Necessary Measures

IF exposed or concerned: Call a POISON CENTER.

Inhalation

Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention if you feel unwell.

Skin

Wash with plenty of soap and water. If skin irritation occurs, get medical advice/attention. Wash contaminated clothing before reuse.

Eyes

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

Ingestion

Do NOT induce vomiting. If swallowed, get medical attention.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically and supportively.

Most Important Symptoms/Effects

Acute

Harmful if swallowed. Cause skin irritation. Causes serious eye irritation. Causes damage to central nervous system, respiratory system. May cause drowsiness or dizziness.

Delayed

May cause cancer. Causes damage to organs through prolonged or repeated exposure: central nervous system, liver.

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Use dry chemical, carbon dioxide, alcohol-resistant foam or water spray.

Unsuitable Extinguishing Media

None known.

Special Hazards Arising from the Chemical

Extremely flammable aerosol. Irritating and/or toxic fumes and gases may be emitted upon the product's decomposition.

Hazardous Combustion Products

Hydrochloric acid, phosgene

Special Protective Equipment and Precautions for Firefighters

May explode when heated. Vapors are heavier than air and may travel a considerable distance to a source of ignition and flashback. Do not spray on an open flame or other ignition sources.

Safety Data Sheet

Material Name: Pattern Release 202

SDS ID: NEPI-003

Fire Fighting Measures

Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8.

Methods and Materials for Containment and Cleaning Up

Eliminate all ignition sources if safe to do so. Stop leak if possible without personal risk. Ventilate affected area. Absorb with earth, sand or other non-combustible material and transfer to container. Large spills: Dike for later disposal. Dispose in accordance with all applicable regulations.

Environmental Precautions

Avoid release to the environment.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flame/hot surfaces - No smoking. Pressurized container: Do not pierce or burn, even after use. Do not spray on an open flame or other ignition sources. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Do not eat, drink, or smoke when using this product.

Conditions for Safe Storage, Including any Incompatibilities

Store in a well-ventilated place. Keep container tightly closed. Store in a secure area. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Keep away from incompatible materials.

Incompatible Materials

Strong oxidizing agents, caustic solutions, reactive metals: aluminum powders, magnesium. powders, sodium, potassium

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

Methylene chloride	75-09-2
ACGIH:	50 ppm TWA
NIOSH:	2300 ppm IDLH
OSHA (US):	25 ppm TWA

Safety Data Sheet

Material Name: Pattern Release 202

SDS ID: NEPI-003

	125 ppm STEL (See 29 CFR 1910.1052) 15 min; 12.5 ppm Action Level (See 29 CFR 1910.1052); 25 ppm TWA (See 29 CFR 1910.1052)
	125 ppm STEL (See 29 CFR 1910.1052)
Mexico:	100 ppm TWA LMPE-PPT; 330 mg/m ³ TWA LMPE-PPT
	500 ppm STEL [LMPE-CT]; 1740 mg/m ³ STEL [LMPE-CT]

Biological limit value

There are no biological limit values for any of this product's components.

Engineering Controls

Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits.

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection

Wear chemical safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Skin Protection

Wear appropriate work clothing.

Respiratory Protection

In case of inadequate ventilation wear respiratory protection.

Glove Recommendations

Wear appropriate gloves. Recommended material: Viton(R), polyethylene.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Colorless liquid	Physical State	aerosol
Odor	sweet,organic	Color	colorless
Odor Threshold	Not available	pH	Not available
Melting Point	Not available	Boiling Point	104 °F (40 °C)
Freezing point	Not available	Evaporation Rate	1.47
Boiling Point Range	Not available	Flammability (solid, gas)	Not available
Autoignition	Not available	Flash Point	-83 °C (iso-butane)
Lower Explosive Limit	1.8 % (iso-butane)	Decomposition	Not available
Upper Explosive Limit	8.4 % (iso-butane)	Vapor Pressure	340 mmHg (methylene chloride at 20 °C)
Vapor Density (air=1)	2.9 (methylene chloride)	Specific Gravity (water=1)	1.32 (methylene chloride)

Safety Data Sheet

Material Name: Pattern Release 202

SDS ID: NEPI-003

Water Solubility	slightly soluble	Partition coefficient: n-octanol/water	Not available
Viscosity	Not available	Solubility (Other)	Not available
Density	Not available		

Other Information

No additional information available.

Section 10 - STABILITY AND REACTIVITY

Reactivity

No reactivity hazard is expected.

Chemical Stability

Stable under normal conditions of use.

Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

Conditions to Avoid

Avoid heat, flames, sparks and other sources of ignition. Avoid contact with incompatible materials.

Incompatible Materials

Strong oxidizing agents, caustic solutions, reactive metals: aluminum powders, magnesium powders, sodium, potassium

Hazardous decomposition products

hydrochloric acid, phosgene

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation

May cause drowsiness or dizziness.

Skin Contact

Causes skin irritation.

Eye Contact

Causes serious eye irritation.

Ingestion

Harmful if swallowed. May cause abdominal pain.

Acute and Chronic Toxicity

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Methylene chloride (75-09-2)

Oral LD50 Rat 1600 mg/kg

Inhalation LC50 Rat 53 mg/L 6 h

Safety Data Sheet

Material Name: Pattern Release 202

SDS ID: NEPI-003

Petroleum jelly (8009-03-8)
Dermal LD50 Rabbit 3600 mg/kg

Immediate Effects

Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. Causes damage to central nervous system, respiratory system. May cause drowsiness or dizziness.

Delayed Effects

May cause cancer. Causes damage to organs through prolonged or repeated exposure: central nervous system, liver.

Irritation/Corrosivity Data

Causes skin irritation. Causes serious eye irritation.

Respiratory Sensitization

No data available.

Dermal Sensitization

No data available.

Component Carcinogenicity

Methylene chloride	75-09-2
ACGIH:	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans
IARC:	Monograph 110 [in preparation]; Monograph 71 [1999] (Group 2A (probably carcinogenic to humans))
NTP:	Reasonably Anticipated To Be A Human Carcinogen
DFG:	Category 3A (could be carcinogenic for man)
OSHA:	Present
OSHA:	see 29 CFR 1910.1052

Germ Cell Mutagenicity

No data available.

Reproductive Toxicity

No data available.

Specific Target Organ Toxicity - Single Exposure

Central nervous system, respiratory system

Specific Target Organ Toxicity - Repeated Exposure

Central nervous system, liver

Aspiration hazard

No data available.

Medical Conditions Aggravated by Exposure

Cardiovascular disorders

Additional Data

High concentrations may cause oxygen deficiency resulting in unconsciousness.

Safety Data Sheet

Material Name: Pattern Release 202

SDS ID: NEPI-003

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity

Avoid release to the environment.

Component Analysis - Aquatic Toxicity

Methylene chloride	75-09-2
Fish:	LC50 96 h Pimephales promelas 140.8 - 277.8 mg/L [flow-through]; LC50 96 h Pimephales promelas 262 - 855 mg/L [static]; LC50 96 h Lepomis macrochirus 193 mg/L [static]; LC50 96 h Lepomis macrochirus 193 mg/L [flow-through]
Algae:	EC50 96 h Pseudokirchneriella subcapitata >500 mg/L EPA; EC50 72 h Pseudokirchneriella subcapitata >500 mg/L EPA
Invertebrate:	EC50 48 h Daphnia magna 1532 - 1847 mg/L [static] EPA; EC50 48 h Daphnia magna 190 mg/L IUCLID

Persistence and Degradability

No information available for the product.

Bioaccumulative Potential

No information available for the product.

Mobility

No information available for the product.

Other Toxicity

No additional information available.

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of contents/container in accordance with local/regional/national/international regulations. Empty containers may contain product residue. Do not incinerate.

Section 14 - TRANSPORT INFORMATION

US DOT Information:

UN/NA #: Not regulated

Additional information: ORM-D

IATA Information:

UN#: Not regulated

Safety Data Sheet

Material Name: Pattern Release 202

SDS ID: NEPI-003

TDG Information:

UN#: Not regulated

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

Methylene chloride	75-09-2
SARA 313:	0.1 % de minimis concentration
CERCLA:	1000 lb final RQ; 454 kg final RQ

SARA Section 311/312 (40 CFR 370 Subparts B and C)

Acute Health: Yes **Chronic Health:** No **Fire:** Yes **Pressure:** Yes **Reactivity:** No

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
Methylene chloride	75-09-2	Yes	Yes	Yes	Yes	Yes

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer

Methylene chloride	75-09-2
Carc:	carcinogen , initial date 4/1/88

Canadian WHMIS Ingredient Disclosure List (IDL)

Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List. The List is composed of chemicals which must be identified on MSDSs if they are included in products which meet WHMIS criteria specified in the Controlled Products Regulations and are present above the threshold limits listed on the IDL

Methylene chloride	75-09-2
	0.1 %

Component Analysis - Inventory

Methylene chloride (75-09-2)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECL/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes

Petroleum jelly (8009-03-8)

Safety Data Sheet

Material Name: Pattern Release 202

SDS ID: NEPI-003

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes

Petroleum gases, liquefied, sweetened (68476-86-8)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes

Section 16 - OTHER INFORMATION

HMIS Rating

Health: 2 Fire: 3 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

NFPA Ratings

Health: 2 Fire: 3 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Summary of Changes

New SDS: March 19, 2015

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States.

Other Information

Disclaimer:

Supplier gives no warranty whatsoever, including the warranties of merchantability or of fitness for a particular purpose. Any product purchased is sold on the assumption the purchaser shall determine the

Safety Data Sheet

Material Name: Pattern Release 202

SDS ID: NEPI-003

quality and suitability of the product. Supplier expressly disclaims any and all liability for incidental, consequential or any other damages arising out of the use or misuse of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights.