

Micro Moly

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 1 - IDENTIFICATION

1.1 Product Identifier

Product Name : Micro Moly
Manufacturer Product Number : 9005A

1.2 Other Means of Identification

Other Identifiers : Not Available

1.3 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Recommended Use : Dry film lubricant
Restrictions on Use : None Identified

1.4 Supplier Details

	Manufacturer Details	Supplier Details
Company Name	Chem-Pak Inc	Chem-Pak Inc
Address	242 Corning Way, Martinsburg, WV 25405 - United States	242 Corning Way, Martinsburg, WV 25405 - United States
Phone Number	304-262-1880	304-262-1880
Fax Number	304-262-9643	304-262-9643
Email	msds@chem-pak.com	msds@chem-pak.com
Website	http://www.chem-pak.com	http://www.chem-pak.com

1.5 24 hr Emergency Phone Number

Emergency Number : 800-255-3924
Chem-Tel

SECTION 2 - HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture

Flam. Aerosol 1	H222	Physical Hazards	Flammable aerosol Category 1
Press. Gas (Comp.)	H280	Physical Hazards	Gases under pressure Compressed gas
Skin Irrit. 2	H315	Health Hazards	Skin corrosion/irritation Category 2
Eye Irrit. 2a	H319	Health Hazards	Serious eye damage/eye irritation Category 2A
Skin Sens. 1	H317	Health Hazards	Skin sensitization, Category 1
Repr. 2	H361	Health Hazards	Reproductive toxicity Category 2
Stot Se 3	H336	Health Hazards	Specific target organ toxicity (single exposure) Category 3, Narcosis
Stot Re 2	H373	Health Hazards	Specific target organ toxicity (repeated exposure) Category 2
Asp. Tox. 1	H304	Health Hazards	Aspiration hazard Category 1
Aquatic Acute 2	H401	Environmental Hazards	Hazardous to the aquatic environment - Acute Hazard Category 2
Aquatic Chronic 2	H411	Environmental Hazards	Hazardous to the aquatic environment - Chronic Hazard Category 2

2.2 Label Elements

Hazard Pictograms



GHS02



GHS04



GHS07



GHS08



GHS09

Signal Word

Danger

Hazard Statements

H222 : Extremely flammable aerosol
H280 : Contains gas under pressure; may explode if heated

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H304 : May be fatal if swallowed and enters airways
H315 : Causes skin irritation
H317 : May cause an allergic skin reaction
H319 : Causes serious eye irritation
H336 : May cause drowsiness or dizziness
H361 : Suspected of damaging fertility or the unborn child
H373 : May cause damage to organs through prolonged or repeated exposure
H401 : Toxic to aquatic life
H411 : Toxic to aquatic life with long lasting effects

Precautionary Statements

P202 : Do not handle until all safety precautions have been read and understood.
P210 : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 : Do not spray on an open flame or other ignition source.
P251 : Pressurized container: Do not pierce or burn, even after use.
P260 : Do not breathe spray.
P264 : Wash hands thoroughly after handling.
P271 : Use only outdoors or in a well-ventilated area.
P272 : Contaminated work clothing must not be allowed out of the workplace
P273 : Avoid release to the environment.
P280 : Wear protective gloves and eye protection.
P301+P310 : If swallowed: Immediately call POISON CENTER
P302+P352 : If on skin: Wash with plenty of water
P304+P340 : If inhaled: Remove person to fresh air and keep comfortable for breathing
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+P313 : If exposed or concerned: Get medical advice/attention.
P314 : Get medical advice/attention if you feel unwell.
P331 : Do NOT induce vomiting.
P333+P313 : If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 : If eye irritation persists: Get medical advice/attention.
P362+P364 : Take off contaminated clothing and wash it before reuse.
P391 : Collect spillage.
P403 : Store in a well-ventilated place.
P410+P412 : Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P501 : Dispose of contents/container to local regulations

2.3 Other Hazards Which Do Not Result In Classification

Hazards Not Otherwise Classified : None Identified.

2.4 Unknown acute toxicity

50% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)
56% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substance / Mixture

Substance / Mixture : Mixture

3.2 Composition

Substance name	CAS Number	% wt*	Classification
N-Butane	106-97-8	10 - 30	Flam. Gas 1, H220 Press. Gas (Diss.), H280
Hydrotreated Light Petroleum Naphtha	64742-49-0	10 - 30	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Aquatic Acute 3, H402 Aquatic Chronic 3, H412

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Substance name	CAS Number	% wt*	Classification
Isobutane	75-28-5	10 - 30	Flam. Gas 1, H220 Press. Gas (Diss.), H280
N-Hexane	110-54-3	10 - 30	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361 STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
Propane	74-98-6	10 - 30	Flam. Gas 1, H220 Press. Gas (Diss.), H280
Toluene	108-88-3	5 - 10	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361 STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Acute 2, H401
Cyclohexane	110-82-7	1 - 5	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Tetrabutyl Titanate	5593-70-4	1 - 5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 STOT SE 3, H336
Secondary Butyl Alcohol	78-92-2	1 - 5	Flam. Liq. 3, H226 Eye Irrit. 2A, H319 STOT SE 3, H336 STOT SE 3, H335
Boron, Trifluoro(Tetrahydrofurane) Polymer	753501-40-5	0.1 - 1	Skin Sens. 1, H317

Full text of hazard classes and H-statements : see section 16

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

SECTION 4 - FIRST-AID MEASURES

4.1 Description of First-Aid Measures

General Measures	: Call a physician immediately.
Inhalation	: Remove person to fresh air and keep comfortable for breathing.
Skin Contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
Eye Contact	: 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. Call a physician immediately.
First-Aid Responder Protection	: Wear adequate personal protective equipment based on the nature and severity of the emergency.

4.2 Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms of Exposure	: Eye Irritation, Nose Irritation, Throat Irritation, Lassitude (Weakness), Dermatitis, Confusion, Skin Irritation, Headache, Dizziness, Nausea, Narcosis, Drowsiness, Chemical Pneumonitis (Aspiration Liquid), Numbness, Mucous Membrane.
Delayed Effects	: No known delayed effects.
Immediate Effects	: No known immediate effects.
Chronic Effects	: No known chronic effects.



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Target Organs : Central Nervous System, Eyes, Liver, Peripheral Nervous System, Reproductive System, Respiratory System, Skin, Kidneys.

4.3 Indication of Immediate Medical Attention and Special Treatment

Notes to Physician : Treat symptomatically.
Specific Treatments/Antidotes : No Information Available.
Medical Conditions Aggravated : May aggravate personnel with pre-existing disorders associated with any of the Target Organs.

SECTION 5 - FIRE-FIGHTING MEASURES

5.1 Suitable Extinguishing Media

Extinguishing Media : Water, carbon dioxide, dry chemical, universal aqueous film forming foam.
Unsuitable Media : Water jet.

5.2 Specific Hazards Arising from the Chemical or Mixture

Hazardous Combustion Products : Decomposition products may include: oxides of carbon, smoke, vapors. See also Section 10.6.
Specific Hazards During Firefighting : Extremely flammable. Contents under pressure. In a fire or if heated, a pressure increase will occur which may result in container bursting. Vapors heavier than air may spread along the ground and travel to an ignition source.

5.3 Special Protective Actions for Fire-Fighters

Firefighting Instructions : Use water spray to cool fire exposed aerosol containers, as contents can rupture violently from heat developed pressure.
Protection during Firefighting : Firemen should wear self-contained breathing apparatus with full face-piece operated in positive pressure mode.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

For Non-Emergency Personnel : No action should be taken involving any personnel without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spill. Remove ignition sources and provide adequate ventilation only if it is safe to do so.
For Emergency Personnel : Use personal protection as recommended in Section 8. Observe precautions provided for non-emergency personnel above.

6.2 Environmental Precautions

Environmental Precautions : Keep out of drains, sewers, ditches, and waterways. Minimize use of water to prevent environmental contamination.

6.3 Methods and Materials for Containment and Cleaning up

Containment Procedures : Product is an aerosol, therefore spills and leaks are unlikely. In case of rupture, released content may be contained with oil/solvent absorbent pads, socks, and/or absorbents.
Cleanup Procedures : Spills from aerosol cans are unlikely and are generally of small volume. Large spills are therefore not normally considered a problem. In case of actual rupture, avoid breathing vapors and ventilate area well. Remove sources of ignition and use non-sparking equipment. Soak up material with inert absorbent and place in safety containers for proper disposal.
Other Information : Aerosol products represent a limited hazard and will not spill or leak unless ruptured. In case of rupture contents are generally evacuated from the can rapidly. Area should be ventilated immediately and continuous ventilation provided until all fumes and vapors have been removed. Aerosol cans should never be incinerated or burned.
Prohibited Materials : Combustible absorbent material such as sawdust. Use of equipment that may cause sparking.

SECTION 7 - HANDLING AND STORAGE



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7.1 Precautions for Safe Handling

- General Handling Precautions** : KEEP OUT OF THE REACH OF CHILDREN. Avoid prolonged or repeated skin contact. Avoid breathing of vapors. Do not incinerate (burn) containers. Always replace overcap when not in use. Avoid use around open flames or other sources of ignition. Exposure to heat or prolonged exposure to sun may cause can to burst. Use only with adequate ventilation, opening doors or windows to achieve cross-ventilation.
- Hygiene Recommendations** : Do not eat, drink or smoke when using this product. Wash hands thoroughly after use. Remove contaminated clothing and protective equipment before entering eating or smoking areas.

7.2 Conditions for Safe Storage Including Any Incompatibilities

- Storage Requirements** : Storage of individual cans should be done in an area below 55°C (120 °F), and away from heat sources. Ensure can is in a secure place to prevent knocking over and accidental rupture. For storage of pallet quantities, compliance with NFPA 30B (Manufacture and Storage of Aerosol Products) is recommended.
- Incompatibilities** : Segregate storage away from materials indicated in Section 10.
- NFPA 30B Classification** : This product is classified as a Level 3 Aerosol per NFPA 30B

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control Parameters

N-Butane (106-97-8)

ACGIH	ACGIH TWA (mg/m ³)	1000 ppm
ACGIH	ACGIH Ceiling (mg/m ³)	1000 ppm
OSHA	OSHA PEL (TWA) (ppm)	800 ppm
NIOSH	NIOSH REL (TWA) (mg/m ³)	1900
NIOSH	NIOSH REL (TWA) (ppm)	800 ppm
California	California PEL (TWA) (mg/m ³)	1900 mg/m ³
California	California PEL (TWA) (ppm)	800 ppm

Propane (74-98-6)

OSHA	OSHA PEL (TWA) (mg/m ³)	1800 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	1000 ppm
NIOSH	US IDLH (ppm)	2100 ppm
NIOSH	NIOSH REL (TWA) (mg/m ³)	1800 mg/m ³
NIOSH	NIOSH REL (TWA) (ppm)	1000 ppm
California	California PEL (TWA) (mg/m ³)	1800 mg/m ³
California	California PEL (TWA) (ppm)	1000 ppm

Isobutane (75-28-5)

ACGIH	ACGIH TWA (mg/m ³)	1000 ppm
NIOSH	NIOSH REL (TWA) (mg/m ³)	1900 mg/m ³
NIOSH	NIOSH REL (TWA) (ppm)	800 ppm

Toluene (108-88-3)

ACGIH	ACGIH TWA (mg/m ³)	20 ppm
ACGIH	ACGIH Ceiling (mg/m ³)	150 ppm
OSHA	OSHA PEL (TWA) (ppm)	200 ppm
OSHA	OSHA PEL (Ceiling) (ppm)	300 ppm
NIOSH	US IDLH (ppm)	500 ppm
NIOSH	NIOSH REL (TWA) (ppm)	100 ppm
NIOSH	NIOSH REL (STEL) (ppm)	150 ppm
California	California PEL (TWA) (mg/m ³)	37 mg/m ³
California	California PEL (TWA) (ppm)	10 ppm
California	California PEL (STEL) (mg/m ³)	560 mg/m ³
California	California PEL (STEL) (ppm)	150 ppm
California	California PEL (Ceiling) (ppm)	500 ppm
Biological Exposure Index	Toluene in blood, Prior to last shift of workweek	0.02 mg/l
Biological Exposure Index	Toluene in urine, End of shift	0.03 mg/l
Biological Exposure Index	o-Cresol in urine (with hydrolysis), End of shift (B)	0.3 mg/g creatinine



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Secondary Butyl Alcohol (78-92-2)

ACGIH	ACGIH TWA (mg/m ³)	100 ppm
OSHA	OSHA PEL (TWA) (mg/m ³)	450 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	150 ppm
NIOSH	US IDLH (ppm)	2000 ppm
NIOSH	NIOSH REL (TWA) (mg/m ³)	0 mg/m ³
NIOSH	NIOSH REL (TWA) (ppm)	100 ppm
NIOSH	NIOSH REL (STEL) (ppm)	150 ppm
California	California PEL (TWA) (mg/m ³)	305 mg/m ³
California	California PEL (TWA) (ppm)	100 ppm

N-Hexane (110-54-3)

ACGIH	ACGIH TWA (mg/m ³)	50 ppm
OSHA	OSHA PEL (TWA) (mg/m ³)	1800 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	500 ppm
NIOSH	US IDLH (ppm)	1100 ppm
NIOSH	NIOSH REL (TWA) (mg/m ³)	180 mg/m ³
NIOSH	NIOSH REL (TWA) (ppm)	50 ppm
California	California PEL (TWA) (mg/m ³)	180 mg/m ³
California	California PEL (TWA) (ppm)	50 ppm
Biological Exposure Index	2,5-Hexanedione in urine (without hydrolysis), End of shift at end of workweek	0.4 mg/l

Cyclohexane (110-82-7)

ACGIH	ACGIH TWA (mg/m ³)	100 ppm (Cyclohexane; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
OSHA	OSHA PEL (TWA) (mg/m ³)	1050 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	300 ppm
NIOSH	US IDLH (ppm)	1300 ppm
NIOSH	NIOSH REL (TWA) (ppm)	300 ppm
California	California PEL (TWA) (mg/m ³)	1050 mg/m ³
California	California PEL (TWA) (ppm)	300 ppm

8.2 Exposure Controls

Engineering Measures	: Use only with adequate ventilation. General ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Local exhaust ventilation or an enclosed handling system may be necessary to control air contamination below that of the lowest OEL from the table above.
Personal Protective Equipment	
Eye / Face Protection	: Safety glasses with side shields are recommended as a minimum for any type of industrial chemical handling. Where eye contact with this material could occur, chemical splash proof goggles are recommended.
Hand Protection	: Chemical-resistant gloves, tested according to ASTM F903 - 17.
Remarks	: Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to the place of work.
Skin and Body Protection	: For brief contact, no precautions other than clean body-covering clothing should be needed. When prolonged or repeated contact could occur, use protective clothing impervious to the ingredients listed in Section 2.
Respiratory Protection	: An approved respirator with an organic vapor cartridge may be permissible under certain circumstances where airborne concentrations are expected to exceed occupational exposure limits.
Compliance	: If needed, compliance with OSHA standard 29 CFR 1910.134 is necessary.
Other Protective Equipment	: Safety showers and eye-wash stations should be available in the workplace near where the material will be used.
Environmental Exposure Controls	: Avoid release to the environment.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

9.1 Physical Properties

Boiling Point	> 63.00 °C	Melting / Freezing Point	> -142.00 °C
Flash Point, Liquid	> -17.00 °C	Flash Point, Propellant	-104.44 °C



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Explosive Limits	LEL: 1.00 UEL: 12.00 vol %	Autoignition Temperature, Liquid	> 232.00 °C
Flammability	Extremely Flammable Aerosol	Density	0.659 g/cm ³
Molecular Weight	Not Available	Weight	5.499 lbs/gal
Vapor Pressure	Not Available	pH	Not Available
Vapor Density	Not Available	Evaporation Rate (nBAC=1)	Not Available
Viscosity	Not Available	Partition Coefficient (Log Pow)	Not Available
Odor Threshold	Not Available	Refractive Index	Not Available
Physical State	Pressurized Product	Heat Of Combustion	17463.21 BTU/lb
Appearance / Color	Black	Water Solubility	Not Available
Odor	Paint-like	Decomposition Temperature	Not Available

9.2 Environmental Properties

Percent Volatile	90.82 % wt	VOC Regulatory	598.65 g/L (5.00 lbs/gal)
Percent VOC	90.82 % wt	VOC Actual	598.49 g/L (4.99 lbs/gal)
Percent HAP	5.17 % wt	HAP Content	34.07 g/L (0.28 lbs/gal)
Global Warming Potential	1.67 GWP	Maximum Incremental Reactivity	1.2580 g O3/g
Ozone Depletion Potential	0.00 ODP		

SECTION 10 - STABILITY AND REACTIVITY

10.1 Reactivity

Reactivity : No specific test data related to reactivity is available for this products or its ingredients.

10.2 Chemical Stability

Chemical Stability : This product is stable.

10.3 Possibility of Hazardous Reactions

Hazardous Reactions : Under normal conditions of storage and use, hazardous reactions are not expected to occur.

10.4 Conditions to Avoid

Conditions to Avoid : Electrostatic Discharge, Other Ignition Sources, Heat, Flames, Sparks.

10.5 Incompatible Materials

Materials to Avoid : Strong Oxidizing Agents, Strong Acids, Halogen Compounds, Aluminum Chloride, Hydrogen Peroxide, Magnesium, Perchloric Acid, Chlorosulfuric Acid, Chlorine, Potassium Chlorate, Dinitrogen Tetroxide, Chlorine Dioxide, Organic Peroxides.

10.6 Hazardous Decomposition Products

Thermal Decomposition : Oxides of carbon, Oxides of sulfur, Aldehydes, Oxides of Molybdenum, Hydrogen Sulfide.

SECTION 11 - TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects

N-Butane (CAS: 106-97-8 / EC: 203-448-7)

LC50 Inhalation (Rat)	658 mg/l/4h (ChemInfo)
LC50 Inhalation (Rat)	276000 ppm/4h (ChemInfo)

Propane (CAS: 74-98-6 / EC: 200-827-9)

LC50 Inhalation (Rat)	658 mg/l/4h (Lit.)
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Isobutane (CAS: 75-28-5 / EC: 200-857-2)

LC50 Inhalation (Rat)	368000 ppm/4h (ChemInfo)
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Toluene (CAS: 108-88-3 / EC: 203-625-9)

LD50 Oral (Rat)	> 2000 mg/kg (Lit.)
LD50 Dermal (Rabbit)	12124 mg/kg (IUCLID)
LC50 Inhalation (Rat)	> 20 mg/l/4h (Lit.)

Secondary Butyl Alcohol (CAS: 78-92-2 / EC: 201-158-5)

LD50 Oral (Rat)	2193 mg/kg (RTECS)
LD50 Dermal (Rat)	> 2000 mg/kg (RTECS)

Tetrabutyl Titanate (CAS: 5593-70-4 / EC: 227-006-8)

LD50 Oral (Rat)	3122 mg/kg (RTECS)
LD50 Dermal (Rabbit)	5300 mg/kg (External SDS)
LC50 Inhalation (Rat)	20100 mg/l/4h (External SDS)

Boron, Trifluoro(Tetrahydrofuran) Polymer (CAS: 753501-40-5 / EC:)

LD50 Oral (Rat)	> 2000 mg/kg (External SDS)
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N-Hexane (CAS: 110-54-3 / EC: 203-777-6)

LD50 Oral (Rat)	29700 mg/kg (RTECS)
LD50 Dermal (Rabbit)	> 3350 mg/kg body weight (ChemInfo)
LC50 Inhalation (Rat)	38500 ppm/4h (ChemInfo)

Hydrotreated Light Petroleum Naphtha (CAS: 64742-49-0 / EC: 265-151-9)

LD50 Oral (Rat)	> 5800 mg/kg (External SDS)
LD50 Dermal (Rabbit)	> 2920 mg/kg (External SDS)
LC50 Inhalation (Rat)	> 23 mg/l/4h (External SDS)

Cyclohexane (CAS: 110-82-7 / EC: 203-806-2)

LD50 Oral (Rat)	> 12705 mg/kg (Sigma-Aldrich)
LD50 Dermal (Rabbit)	> 2000 mg/kg body weight (RTECS)
LC50 Inhalation (Rat)	> 19.07 mg/l/4h (Lit.)
LC50 Inhalation (Rat)	> 9500 ppm/4h (RTECS)

Routes Of Exposure	: Eye Contact, Ingestion, Skin Contact, Inhalation, Skin Absorption.
Delayed and Immediate Effects and Also Chronic Effects from Short and Long Term Exposure	: See Section 4.2
Skin Corrosion/Irritation	: Causes skin irritation.
Eye Damage/Irritation	: Causes serious eye irritation.
Respiratory or Skin Sensitization	: May cause an allergic skin reaction.
Germ Cell Mutagenicity	: Not classified
Reproductive Toxicity	: Suspected of damaging fertility or the unborn child.
STOT-Single Exposure	: May cause drowsiness or dizziness.
STOT-Repeated Exposure	: May cause damage to organs through prolonged or repeated exposure.
Aspiration Hazard	: May be fatal if swallowed and enters airways.
Vaporizer	: Aerosol
Carcinogen Data	: None of the ingredients in the product are listed with OSHA, IARC, NTP or ACGIH as being a suspected or known carcinogen in a concentration greater than 0.1% by weight.

SECTION 12 - ECOLOGICAL INFORMATION

12.1 Ecotoxicity and Ecological Properties

n-Butane (106-97-8)

Persistence and Degradability	Readily biodegradable in water.
Bioconcentration Factor	33.52
Log Pow	2.89
Bioaccumulative Potential	Low potential for bioaccumulation (Log Kow < 4).
Log Koc	1.641



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Propane (74-98-6)

Persistence and Degradability	Readily biodegradable in water. Not applicable (gas). Photodegradation in the air.
BCF Fish	9 - 25 (BCF)
Log Pow	2.28 (Calculated)
Bioaccumulative Potential	Low potential for bioaccumulation (Log Kow < 4).

Isobutane (75-28-5)

Persistence and Degradability	Readily biodegradable in water. Biodegradable in the soil. Not applicable (gas).
BCF Fish	26.62
Log Pow	2.76
Bioaccumulative Potential	Low potential for bioaccumulation (BCF < 500).
Log Koc	1.545

Toluene (108-88-3)

LC50 Fish	5.8 mg/l Rainbow Trout - 96hr
LC50 Other Aquatic Organisms	10 mg/l Green Algae - 72hr
EC50 Daphnia	6 mg/l Water Flea - 48hr
Persistence and Degradability	Readily biodegradable in water. Biodegradable in the soil. Low potential for absorption in soil.
Biochemical Oxygen Demand	2.15 g O ₂ /g substance
Chemical Oxygen Demand	2.52 g O ₂ /g substance
Theoretical Oxygen Demand	3.13 g O ₂ /g substance
Biodegradation	86 % 28 Days
Log Pow	2.73 (Experimental Value)
Bioaccumulative Potential	Low potential for bioaccumulation (BCF < 500).
Log Koc	2.15

Secondary Butyl Alcohol (78-92-2)

LC50 Fish	3670 mg/l Fathead Minnow - 96h
EC50 Daphnia	4227 mg/l Water Flea - 48hr
Persistence and Degradability	Biodegradability 88% / 28 days.
Biochemical Oxygen Demand	1.87 g O ₂ /g substance
Chemical Oxygen Demand	2.47 g O ₂ /g substance
Theoretical Oxygen Demand	2.59 g O ₂ /g substance
Log Pow	0.61 (Experimental value)
Bioaccumulative Potential	Low potential for bioaccumulation (Log Kow < 4).

Tetrabutyl Titanate (5593-70-4)

LC50 Fish	1825 mg/l 96hr
EC50 Daphnia	1300 mg/l Water Flea - 48hr
EC50 Other Aquatic Organisms	225 mg/l Green Algae - 96hr
Bioaccumulative Potential	No bioaccumulation data available.

Boron, Trifluoro(Tetrahydrofuran) Polymer (753501-40-5)

Log Pow	> 1.5
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n-Hexane (110-54-3)

LC50 Fish	2.5 mg/l Fathead Minnow - 96h
EC50 Daphnia	3878 mg/l Water Flea - 48hr
Theoretical Oxygen Demand	3.52 g O ₂ /g substance
BCF Fish	501.187 (BCF; Other; Pimephales promelas)
Log Pow	3.9
Bioaccumulative Potential	Potential for bioaccumulation (500 ≤ BCF ≤ 5000).
Log Koc	2.17

Hydrotreated Light Petroleum Naphtha (64742-49-0)

LC50 Fish	4.1 mg/l Fathead Minnow - 96h
EC50 Daphnia	10 mg/l Water Flea - 48hr
EC50 Other Aquatic Organisms	11 mg/l Green Algae - 72hr
Log Kow	3.6 - 5.7

cyclohexane (110-82-7)

LC50 Fish	4.53 mg/l Fathead Minnow - 96h
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cyclohexane (110-82-7)




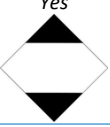
EC50 Daphnia	0.93 mg/l Water Flea - 48hr
EC50 Other Aquatic Organisms	3.4 mg/l Green Algae - 72hr
Persistence and Degradability	Biodegradability 8% / 28 days.
Biochemical Oxygen Demand	0.22 g O ₂ /g substance
Theoretical Oxygen Demand	3.425 g O ₂ /g substance
Log Pow	3.44 (Experimental value; 25 °C)
Bioaccumulative Potential	Low potential for bioaccumulation (BCF < 500).
Log Koc	log Koc, Other; 2.89; QSAR; Koc; Other; 770; QSAR

SECTION 13 - DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

Waste Disposal	: Characteristics and waste stream classification can change with product use and location. It is the responsibility of the user to determine the proper storage, transportation, treatment, and/or disposal methodologies for spent materials and residues at the time of disposition. All waste must be disposed of in compliance with the respective national, federal, state, and/or local regulations.
Waste Disposal Of Packaging	: In the United States, an aerosol container that does not contain a significant amount of liquid would meet the definition of scrap metal (40 CFR 261.1(c)(6)), and would be exempt from RCRA regulation under 40 CFR 261.6(a)(3)(iv) if it is to be recycled. If containers are to be disposed of (not recycled) it must be managed under all applicable RCRA and state regulations.
Landfill Precautions	: Not Available.
Incineration Precautions	: ** DO NOT INCINERATE ** CONTENTS UNDER PRESSURE **.

SECTION 14 - TRANSPORTATION INFORMATION

14.1 UN Number	DOT (USA)	IATA (AIR)	IMDG (OCEAN)
UN Number	: UN1950	UN1950	UN1950
14.2 UN Proper Shipping Name	DOT (USA)	IATA (AIR)	IMDG (OCEAN)
UN Proper Shipping Name	: Aerosols, Limited Quantity	Aerosols, Flammable, Limited Quantity	Aerosols, Limited Quantity
14.3 Transport Hazard Class(es)	DOT (USA)	IATA (AIR)	IMDG (OCEAN)
Transport Hazard Class(es)	: 2.1	2.1	2.1
Labels	: None	2.1 - Flammable gas 	None
Limited Quantity	: 	: 	: 
EmS Code	: Not Applicable	Not Applicable	F-D, S-U
14.4 Packing Group	DOT (USA)	IATA (AIR)	IMDG (OCEAN)
Packing Group	: None	None	None
14.5 Environmental Hazards	DOT (USA)	IATA (AIR)	IMDG (OCEAN)
Marine Pollutant	: No	No	No
14.6 Special Precautions			
Precautions	: None Identified		

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14.7 Transport in Bulk

Remarks : Not applicable for product as supplied

SECTION 15 - REGULATORY INFORMATION

15.1 Federal Regulations

SARA Section 313

: Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Toluene	CAS-No. 108-88-3	5 - 10%
Xylene	CAS-No. 1330-20-7	0.1 - 1%
Ethyl Benzene	CAS-No. 100-41-4	0.01 - 0.1%
Secondary Butyl Alcohol	CAS-No. 78-92-2	1 - 5%
Benzene	CAS-No. 71-43-2	0.01 - 0.1%
n-Hexane	CAS-No. 110-54-3	10 - 30%
cyclohexane	CAS-No. 110-82-7	1 - 5%
Naphthalene	CAS-No. 91-20-3	0.001 - 0.01%

TSCA Section 12(b)

: This product or mixture is not known to contain a chemical or chemicals subject to the export notification requirements of section 12(b) of the Toxic Substances Control Act (TSCA) and 40 CFR Part 707, subpart D

CERCLA Reportable Quantity

: Chemical(s) subject to reporting requirements of Section 102 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) if released to the environment at or above the reportable quantity

Toluene	CAS-No. 108-88-3	1000 lb
Xylene	CAS-No. 1330-20-7	100 lb
Ethyl Benzene	CAS-No. 100-41-4	1000 lb
Benzene	CAS-No. 71-43-2	10 lb
n-Hexane	CAS-No. 110-54-3	5000 lb
cyclohexane	CAS-No. 110-82-7	1000 lb
Naphthalene	CAS-No. 91-20-3	100 lb

15.2 State Regulations

California Proposition 65

: This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

Ethyl Benzene (100-41-4)	Cancer	Yes	0.0289 %
Benzene (71-43-2)	Cancer	Yes	0.0151 %
Naphthalene (91-20-3)	Cancer	Yes	0.0089 %
Toluene (108-88-3)	Developmental Toxicity	Yes	5.0206 %
Benzene (71-43-2)	Developmental Toxicity	Yes	0.0151 %
n-Hexane (110-54-3)	Reproductive Toxicity, Male	Yes	14.4013 %
Toluene (108-88-3)	No significance risk level (NSRL)	7000 µg/day	
Ethyl Benzene (100-41-4)	No significance risk level (NSRL)	54	

State Right-to-Know Lists

: The following chemical(s) appear on one or more state RTK (Right to Know) lists as indicated

n-Butane (106-97-8)	U.S. - New Jersey - Right to Know Hazardous Substance List
Propane (74-98-6)	U.S. - New Jersey - Right to Know Hazardous Substance List
Isobutane (75-28-5)	U.S. - New Jersey - Right to Know Hazardous Substance List
Toluene (108-88-3)	U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List
Isobutyl Methacrylate (97-86-9)	U.S. - New Jersey - Right to Know Hazardous Substance List
Xylene (1330-20-7)	U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List

SAFETY DATA SHEET

Part No. 9005A (Aerosol)

Print Date: 22/10/2019
Revision Date: 10/22/2019
Supersedes Date: 11/15/2017
Issue Date: 9/10/2001
Version: 9.0 (EN)-US
Page: 12/12

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Ethyl Benzene (100-41-4)	U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List
Secondary Butyl Alcohol (78-92-2)	U.S. - New Jersey - Right to Know Hazardous Substance List
Benzene (71-43-2)	U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List
n-Hexane (110-54-3)	U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List
cyclohexane (110-82-7)	U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List
Naphthalene (91-20-3)	U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16 - OTHER INFORMATION

Indication of changes :

Section	Changed item	Change
1	Revision date	Modified
1	Supersedes	Modified
2.1	GHS-US classification	Added
2.2	Hazard statements (GHS US)	Added
2.2	Precautionary statements (GHS US)	Added
3	Composition/Information on ingredients	Modified
4	Symptoms/effects after skin contact	Added
4	Symptoms/effects after inhalation	Added
4	Other medical advice or treatment	Added
4	Symptoms/effects after ingestion	Added
4	Symptoms/effects after eye contact	Added
4	Symptoms/effects	Added
4.1	First-aid measures after skin contact	Added
4.1	First-aid measures after inhalation	Added
4.1	First-aid measures after ingestion	Added
4.1	First-aid measures after eye contact	Added
4.1	First-aid measures general	Added
9	Specific gravity / density	Added
9	Relative vapor density at 20 °C	Added
9	Melting point	Added
9	Flash point	Added
9	Explosive limits (vol %)	Added
9	Boiling point	Added
9	Auto-ignition temperature	Added
9	Explosive properties	Added
9	Gas group	Added
9	Color	Added
9	Appearance	Added
10	Hazardous decomposition products	Added
10	Conditions to avoid	Added
12.1	Ecology - general	Added

Disclaimer of Liability

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