

Safety Data Sheet: MD-113

Supersedes Date 06/28/2011

Issuing Date 02/14/2014

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name MD-113
Recommended use Lubricant
Information on Manufacturer
Partsmaster, Div of NCH Corp.
P.O. Box 655326
Dallas, TX 75265-5326

Product Code 5438
Chemical nature Alcoholic solution
Emergency Telephone Number
CHEMTREC® 800-424-9300

2. HAZARD IDENTIFICATION

Color Dark gray

Physical State Liquid

Odor Alcoholic

GHS

Classification

Physical Hazards

Flammable aerosols
Gases under pressure

Category 1
Compressed Gas

Health Hazard

Aspiration Toxicity
Acute Inhalation Toxicity - Gas
Serious Eye Damage/Eye Irritation
Reproductive Toxicity
Specific target organ systemic toxicity (single exposure)
Specific target organ systemic toxicity (repeated exposure)

Category 1
Category 4
Category 2
Category 2
Category 3
Category 2

Other hazards

None

Labeling

Signal Word

DANGER



Hazard Statements

H222 - Extremely flammable aerosol
H332 - Harmful if inhaled
H336 - May cause drowsiness or dizziness
H319 - Causes serious eye irritation
H305 - May be harmful if swallowed and enters airways
H373 - May cause damage to organs through prolonged or repeated exposure
H361 - Suspected of damaging fertility or the unborn child
H280 - Contains gas under pressure; may explode if heated

Precautionary Statements

P210 - Keep away from heat, sparks, open flames or hot surfaces.
P251 - Pressurized container: Do not pierce or burn, even after use
P270 - Do not eat, drink or smoke when using this product
P260 - Do not breathe vapor, mist or gas
P271 - Use in a well-ventilated area.
P280 - Wear protective gloves, protective clothing and eye protection.
P264 - Wash face, hands and any exposed skin thoroughly after handling.
P304 + P340 - IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.
P312 - Call a physician if unwell.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 - If eye irritation persists, get medical attention.
P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. Call a physician if unwell.
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 and container in accordance with applicable regulations.

2 % of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS-No	Weight %
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Isopropyl alcohol	67-63-0	40-70
Butane	106-97-8	10-30
Propane	74-98-6	7-13
Molybdenum disulfide	1317-33-5	1-5
Ethylcellulose	9004-57-3	1-5
Pseudocumene	95-63-6	1-5
Urea	57-13-6	1-5
Petroleum naphtha, light aromatic	64742-95-6	1-5
1,3,5-Trimethylbenzene	108-67-8	0.1-1
Xylenes (o-, m-, p- isomers)	1330-20-7	0.1-1

4. FIRST AID MEASURES

General advice	Avoid breathing vapors, mist, or gas. Avoid contact with skin, eyes and clothing.
Eye Contact	Rinse thoroughly with plenty of water, also under the eyelids. Get medical attention if irritation develops and persists.
Skin Contact	Wash off immediately with soap and plenty of water. Get medical attention if irritation develops and persists.
Inhalation	If inhaled, remove to fresh air. Get medical attention if symptoms occur.
Ingestion	Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately. Never give anything by mouth to an unconscious person.
Notes to physician	Aspiration hazard if swallowed - can enter lungs and cause damage. May be fatal if swallowed and enters airways.

5. FIRE-FIGHTING MEASURES

Flash Point	47 °F / 8 °C	Method	Seta closed cup
Flammability Limits in Air % Mixture.		Upper	12.7
Suitable Extinguishing Media		Lower	1.8
Water spray. Carbon dioxide (CO ₂). Foam. Dry chemical.			
Specific hazards arising from the chemical			
Solvent vapors are heavier than air and may spread along floors. Vapors may ignite and explode. Flame extension: >36 inches / >91.4 cm and Burnback: 6 inch / 15 cm.			
Protective Equipment and Precautions for Firefighters			
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.			
Aerosol Level (NFPA 30B) - 3			
NFPA	Health 2	Flammability 4	Instability 0
HMIS	Health 2	Flammability 4	Instability 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Remove all sources of ignition. Ensure adequate ventilation. Use personal protective equipment.
Environmental Precautions	Prevent further leakage or spillage if safe to do so. Material can create slippery conditions.
Methods for Containment	Do not flush into surface water or sanitary sewer system.
	Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).
Methods for Cleaning Up	Use clean non-sparking tools to collect absorbed material. Pick up and transfer to properly labeled containers.
Neutralizing Agent	Not applicable.

7. HANDLING AND STORAGE

Handling	Keep away from open flames, hot surfaces and sources of ignition. Avoid breathing vapors, mist or gas. Avoid contact with skin, eyes and clothing.			
Storage	Keep away from heat and sources of ignition.			
Storage Temperature	Minimum	35 °F / 2 °C	Maximum	120 °F / 49 °C
Storage Conditions	Indoor	X	Outdoor	Heated
				Refrigerated

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH
Isopropyl alcohol	TWA: 200 ppm STEL: 400 ppm	TWA: 400 ppm TWA: 980 mg/m ³	IDLH: 2000 ppm STEL 500 ppm STEL 1225 mg/m ³

			TWA: 400 ppm TWA: 980 mg/m ³
Butane	STEL: 1000 ppm	No data available	TWA: 800 ppm TWA: 1900 mg/m ³
Propane	TWA: 1000 ppm	TWA: 1000 ppm TWA: 1800 mg/m ³	IDLH: 2100 ppm TWA: 1000 ppm TWA: 1800 mg/m ³
Molybdenum disulfide	TWA: 10 mg/m ³ TWA: 3 mg/m ³	TWA: 15 mg/m ³	IDLH: 5000 mg/m ³
Ethylcellulose	No data available	No data available	No data available
Pseudocumene	No data available	No data available	TWA: 25 ppm TWA: 125 mg/m ³
Urea	No data available	No data available	No data available
Petroleum naphtha, light aromatic	No data available	No data available	No data available
1,3,5-Trimethylbenzene	No data available	No data available	TWA: 25 ppm TWA: 125 mg/m ³
Xylenes (o-, m-, p- isomers)	TWA: 100 ppm STEL: 150 ppm	TWA: 100 ppm TWA: 435 mg/m ³	No data available

Engineering Measures

Use with local exhaust ventilation. Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment**Eye/Face Protection**

Safety glasses with side-shields.

Skin Protection

Wear suitable protective clothing, Impervious gloves.

Respiratory Protection

In case of inadequate ventilation wear respiratory protection. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

General Hygiene Considerations

Ensure that eyewash stations and safety showers are close to the workstation location. Remove and wash contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid	Viscosity	Slightly Viscous
Color	Dark gray	Odor	Alcoholic
Odor Threshold	Not applicable	Appearance	Opaque
pH	Not applicable	Specific Gravity	0.708
Evaporation Rate	51.5 (Butyl acetate=1)	Percent Volatile (Volume)	98.7
VOC Content (%)	95	VOC Content (g/L)	672
Vapor Pressure	1323 mmHg @ 70°F	Vapor Density	1.9 (Air = 1.0)
Solubility	Dispersible	n-Octanol/Water Partition	No data available
Melting Point/Range	No data available	Decomposition Temperature	No data available
Boiling Point/Range	180 °F / 82 °C	Flammability (solid, gas)	No data available
Flash Point	47 °F / 8 °C	Method	Seta closed cup
Autoignition Temperature	No information available.		
Flammability Limits in Air %	Mixture.	Upper 12.7 Lower 1.8	

10. STABILITY AND REACTIVITY

Chemical Stability	Stable. Hazardous polymerization does not occur.
Conditions to Avoid	Keep away from open flames, hot surfaces, and sources of ignition
Incompatible Products	Strong oxidizing agents, Acids, Bases, Aldehydes, Ketones, Halogenated hydrocarbon.
Hazardous Decomposition Products	Carbon oxides, Nitrogen oxides (NOx), Sulfur oxides.
Possibility of Hazardous Reactions	None under normal processing

11. TOXICOLOGICAL INFORMATION**Product Information**

The following values are calculated based on chapter 3.1 of the GHS document (Rev. 3, 2009):

Oral LD50	4,542.61
Dermal LD50	10,926.28
Inhalation LC50	
Gas	4,073.20
Mist	51.57
Vapor	91.98

Principle Route of Exposure	Inhalation, Skin contact, Eye contact.
Primary Routes of Entry	Inhalation, Skin Absorption.
Acute Effects	

Eyes	Causes eye irritation.
Skin	May cause skin irritation. Repeated exposure may cause skin dryness or cracking.
Inhalation	May cause irritation of respiratory tract. Inhalation may cause central nervous system effects. May cause central nervous system depression. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Causes headache, drowsiness or other effects to the central nervous system. Aspiration hazard if swallowed - can enter lungs and cause damage. May be fatal if swallowed and enters airways.
Chronic Toxicity	Ingestion may cause lowering of blood pressure. Liver and kidney injuries may occur. Contains a known or suspected reproductive toxin.
Target Organ Effects	Respiratory system, Central nervous system, Liver, Kidney, Heart, Blood, Skin, Eyes, Bone, Ears.
Aggravated Medical Conditions	Respiratory disorders, Skin disorders, Liver disorders, Kidney disorders, Blood disorders, Neurological disorders, Heart disease.

Component Information

Acute Toxicity None known

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation	Draize Test	Other
Isopropyl alcohol	= 4396 mg/kg (Rat)	= 12800 mg/kg (Rabbit)	= 16000 ppm (Rat) 8 h	no data available	no data available
Butane	no data available	no data available	= 658 g/m ³ (Rat) 4 h	no data available	no data available
Propane	no data available	no data available	= 658 mg/L (Rat) 4 h	no data available	no data available
Molybdenum disulfide	no data available	no data available	> 2820 mg/m ³ (Rat) 4 h	no data available	no data available
Ethylcellulose	no data available	no data available	no data available	no data available	no data available
Pseudocumene	= 3400 mg/kg (Rat)	> 3160 mg/kg (Rabbit)	= 18 g/m ³ (Rat) 4 h	no data available	no data available
Urea	14,300-15,000 mg/kg (rat)	no data available	no data available	no data available	no data available
Petroleum naphtha, light aromatic	no data available	> 2000 mg/kg (Rabbit)	> 5.2 mg/L (Rat) 4 h = 3400 ppm (Rat) 4 h	no data available	no data available
1,3,5-Trimethylbenzene	no data available	no data available	= 24 g/m ³ (Rat) 4 h	no data available	no data available
Xylenes (o-, m-, p- isomers)	= 4300 mg/kg (Rat)	> 1700 mg/kg (Rabbit)	= 47635 mg/L (Rat) 4 h	no data available	no data available

Component	Mutagenicity	Sensitization	Developmental Toxicity	Reproductive Toxicity	Target Organ Effects
Isopropyl alcohol	no data available	no data available	no data available	no data available	eyes, respiratory system, skin, liver, kidney, CNS
Butane	no data available	no data available	no data available	no data available	CNS, heart
Propane	no data available	no data available	no data available	no data available	CNS, heart
Molybdenum disulfide	no data available	no data available	no data available	no data available	respiratory system, kidneys, eyes, blood, bones, joints
Ethylcellulose	no data available	no data available	no data available	no data available	no data available
Pseudocumene	no data available	no data available	no data available	no data available	eyes, CNS, respiratory system, skin, blood, ears, heart
Urea	no data available	no data available	no data available	no data available	no data available
Petroleum naphtha, light aromatic	no data available	no data available	no data available	no data available	CNS
1,3,5-Trimethylbenzene	no data available	no data available	no data available	no data available	eyes, CNS, respiratory system, skin, blood, ears, heart
Xylenes (o-, m-, p- isomers)	no data available	no data available	yes	no data available	heart, lung, CNS, PNS, respiratory system, ears, liver, kidney

Carcinogenicity

Component	ACGIH	IARC	NTP	OSHA	Other
Isopropyl alcohol	not applicable	not applicable	not applicable	not applicable	not applicable
Butane	not applicable	not applicable	not applicable	not applicable	not applicable
Propane	not applicable	not applicable	not applicable	not applicable	not applicable
Molybdenum disulfide	not applicable	not applicable	not applicable	not applicable	not applicable
Ethylcellulose	not applicable	not applicable	not applicable	not applicable	not applicable
Pseudocumene	not applicable	not applicable	not applicable	not applicable	not applicable
Urea	not applicable	not applicable	not applicable	not applicable	not applicable
Petroleum naphtha, light aromatic	not applicable	not applicable	not applicable	not applicable	not applicable
1,3,5-Trimethylbenzene	not applicable	not applicable	not applicable	not applicable	not applicable
Xylenes (o-, m-, p- isomers)	not applicable	not applicable	not applicable	not applicable	not applicable

12. ECOLOGICAL INFORMATION

Product Information
Component Information

No information available.

Component	Toxicity to Algae	Toxicity to Fish	Microtox	Water Flea	log Pow
Isopropyl alcohol	EC50 > 1000 mg/L Desmodesmus subspicatus 96 h EC50 > 1000 mg/L Desmodesmus subspicatus 72 h	LC50 = 9640 mg/L Pimephales promelas 96 h LC50 = 11130 mg/L Pimephales promelas 96 h LC50 > 1400000 µg/L Lepomis macrochirus 96 h	EC50 = 35390 mg/L 5 min	EC50= 13299 mg/L 48 h	0.05
Butane	no data available	no data available	no data available	no data available	2.89
Propane	no data available	no data available	no data available	no data available	2.3
Molybdenum disulfide	no data available	no data available	no data available	no data available	N/A
Ethylcellulose	no data available	no data available	no data available	no data available	N/A
Pseudocumene	no data available	LC50 7.19 - 8.28 mg/L Pimephales promelas 96 h	no data available	EC50= 6.14 mg/L 48 h	3.63
Urea	no data available	LC50 16200 - 18300 mg/L Poecilia reticulata 96 h	EC50 = 23914 mg/L 5 min	EC50> 10000 mg/L 24 h EC50= 3910 mg/L 48 h	-1.59
Petroleum naphtha, light aromatic	no data available	LC50 = 9.22 mg/L Oncorhynchus mykiss 96 h	no data available	EC50= 6.14 mg/L 48 h	N/A
1,3,5-Trimethylbenzene	no data available	LC50 = 3.48 mg/L Pimephales promelas 96 h	no data available	EC50= 50 mg/L 24 h	N/A
Xylenes (o-, m-, p- isomers)	no data available	LC50 = 13.4 mg/L Pimephales promelas 96 h LC50 2.661 - 4.093 mg/L Oncorhynchus mykiss 96 h LC50 13.5 - 17.3 mg/L Oncorhynchus mykiss 96 h LC50 13.1 - 16.5 mg/L Lepomis macrochirus 96 h LC50 = 19 mg/L Lepomis macrochirus 96 h LC50 7.711 - 9.591 mg/L Lepomis macrochirus 96 h LC50 23.53 - 29.97 mg/L Pimephales promelas 96 h LC50 = 780 mg/L Cyprinus carpio 96 h LC50 > 780 mg/L Cyprinus carpio 96 h LC50 30.26 - 40.75 mg/L Poecilia reticulata 96 h	EC50 = 0.0084 mg/L 24 h	EC50= 3.82 mg/L 48 h LC50= 0.6 mg/L 48 h	2.77 - 3.15

Persistence and Degradability
Bioaccumulation
Mobility

No information available.
No information available.
No information available.

13. DISPOSAL CONSIDERATIONS

Product Disposal
Container Disposal

Dispose of in accordance with local regulations.
Contents under pressure. Do not puncture. Empty remaining contents. Empty containers should be taken for local recycling, recovery, or waste disposal.

14. TRANSPORT INFORMATION

DOT

Proper Shipping Name Consumer commodity
Hazard Class ORM-D
Description Consumer commodity ,ORM-D,

TDG

Proper shipping name Aerosols
Hazard Class 2.1
UN-No UN1950

ICAO

UN-No UN1950
Proper Shipping Name Aerosols
Hazard Class 2.1
Shipping Description Aerosols,UN1950 2.1 LTD. QTY.

IATA

UN-No UN1950
 Proper Shipping Name Aerosols, flammable
 Hazard Class 2.1
 ERG Code 10L
 Shipping Description UN1950,Aerosols, flammable,2.1 LTD. QTY.

IMDG/IMO

Proper Shipping Name Aerosols
 Hazard Class 2
 UN-No UN1950
 EmS No. F-D, S-U
 Shipping Description UN1950, Aerosols,2.1 LTD QTY.

15. REGULATORY INFORMATION

Inventories

TSCA

Complies

DSL

Complies

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Component	CAS-No	Weight %	SARA 313 - Threshold Values
Isopropyl alcohol	67-63-0	40-70	1.0
Pseudocumene	95-63-6	1-5	1.0
Xylenes (o-, m-, p- isomers)	1330-20-7	0.1-1	1.0

SARA 311/312 Hazardous Categorization

Acute Health Hazard	Chronic Health Hazard	Fire Hazard	Sudden Release of Pressure Hazard	Reactive Hazard
Yes	Yes	Yes	Yes	No

CERCLA

Component	Hazardous Substances RQs	CERCLA EHS RQs
Isopropyl alcohol	Not applicable	Not applicable
Butane	Not applicable	Not applicable
Propane	Not applicable	Not applicable
Molybdenum disulfide	Not applicable	Not applicable
Ethylcellulose	Not applicable	Not applicable
Pseudocumene	Not applicable	Not applicable
Urea	Not applicable	Not applicable
Petroleum naphtha, light aromatic	Not applicable	Not applicable
1,3,5-Trimethylbenzene	Not applicable	Not applicable
Xylenes (o-, m-, p- isomers)	100 lb	Not applicable

U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

Component	CAS-No	California Prop. 65
Ethyl benzene	100-41-4	carcinogen
Toluene	108-88-3	developmental toxicity female reproductive toxicity
Benzene	71-43-2	carcinogen developmental toxicity male reproductive toxicity
Cumene	98-82-8	carcinogen

16. OTHER INFORMATION

Prepared By

Angela Hutson

Supercedes Date

06/28/2011

Issuing Date

02/14/2014

Reason for Revision

No information available.

Glossary

No information available.

List of References.

No information available.

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unrecommended use, storage or disposal of the product. The information provided on this document is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.