

SAFETY DATA SHEET

SECTION 1) CHEMICAL PRODUCT AND MANUFACTURER'S IDENTIFICATION

Product ID: 494805
Product Name: Markonex Gel
Revision Date: Jun 22, 2020
Version: 3.0
Manufacturer's Name: Zenex International
Address: 1 Zenex Circle Cleveland, OH, US, 44146
Emergency Phone: 1-800-535-5053
Information Phone Number: (440)-232-4155
Product/Recommended Uses: Gel Vandal Remover

Date Printed: Jun 23, 2020
Supersedes Date: Oct 09, 2018

SECTION 2) HAZARDS IDENTIFICATION

Classification

Aerosols - Category 1
Gases Under Pressure - Liquefied Gas
Aspiration Hazard - Category 1
Skin Irritation - Category 2
Eye Irritation - Category 2
Reproductive Toxicity - Category 2
Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) - Category 3

Pictograms



Signal Word

Danger

Hazardous Statements - Physical

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

Hazardous Statements - Health

H304 - May be fatal if swallowed and enters airways.
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H361 - Suspected of damaging the unborn child.
H336 - May cause drowsiness or dizziness.

Precautionary Statements - General

P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.

P103 - Read label before use.

Precautionary Statements - Prevention

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 - Do not pierce or burn, even after use.

P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P280 - Wear protective gloves, protective clothing, eye protection and face protection.

P264 - Wash hands thoroughly after handling.

P261 - Avoid breathing mist, vapors or spray.

P271 - Use only outdoors or in a well-ventilated area.

Precautionary Statements - Response

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.

P331 - Do NOT induce vomiting.

P308 + P313 - IF exposed or concerned: Get medical attention.

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.

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.

P332 + P313 - If skin irritation occurs: Get medical attention.

P362 + P364 - Take off contaminated clothing and wash it before reuse.

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 - Call a POISON CENTER or doctor if you feel unwell.

Precautionary Statements - Storage

P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F.

P403 + P405 - Store in a well-ventilated place. Store locked up.

Precautionary Statements - Disposal

P501 - Dispose of contents and container in accordance with local, regional, national and international regulations.

SECTION 3) COMPOSITION, INFORMATION ON INGREDIENTS

CAS	Chemical Name	% By Weight
0000108-88-3	TOLUENE	15% - 24%
0000074-98-6	PROPANE	8% - 18%
0000067-64-1	ACETONE	8% - 17%
0000123-42-2	DIACETONE ALCOHOL	2% - 5%
0064742-47-8	Isoparaffinic Petroleum Distillate	2% - 5%
0000064-17-5	ETHYL ALCOHOL	2% - 5%
0068439-46-3	Ethoxylated Alcohols (C9 - C11)	2% - 5%
Confidential	Confidential polyacrylate	0.9% - 2%
0068953-58-2	Quaternary Ammonium CPDS, bis (Hydrogenated Tallow Alkyl) Dimethyl Salt	0.9% - 2%
0000532-32-1	SODIUM BENZOATE	0.1% - 2%
0000110-91-8	MORPHOLINE	0.1% - 2%

Specific chemical identity and/or exact percentage (concentration) of the composition has been withheld to protect confidentiality.

SECTION 4) FIRST-AID MEASURES

Inhalation

If exposed/feel unwell/concerned: Call a POISON CENTER or doctor.

Eliminate all ignition sources if safe to do so.

Remove source of exposure or move person to fresh air and keep comfortable for breathing.

Eye Contact

Remove source of exposure or move person to fresh air. Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for a duration of 15-20 minutes. Take care not to rinse contaminated water into the unaffected eye or onto the face. If eye irritation persists: Get medical advice/attention.

Skin Contact

Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Wash with plenty of lukewarm, gently flowing water for a duration of 15-20 minutes. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

IF exposed or concerned: Get medical advice/attention.

Ingestion

Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. If vomiting occurs naturally, lie on your side, in the recovery position.

Most Important Symptoms/Effects, Acute and Delayed

No data available.

Indication of Immediate Medical Attention and Special Treatment Needed

No data available.

SECTION 5) FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Dry chemical, foam, carbon dioxide. Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam. Sand or earth may be used for small fires only.

Do not direct a solid stream of water or foam into hot, burning pools. This may result in frothing and increased fire intensity.

Unsuitable Extinguishing Media

No data available.

Specific Hazards in Case of Fire

Contents under pressure. Keep away from ignition sources and open flames. Exposure of containers to extreme heat and flames can cause them to rupture often with violent force. Product is highly flammable and forms explosive mixtures with air, oxygen, and all oxidizing agents. Vapors are heavier than air and may travel along surfaces to remote ignition sources and flash back.

During a fire, irritating and highly toxic gases may be generated during combustion or decomposition. High temperatures can cause sealed containers to rupture due to a build up of internal pressures. Cool with water.

Empty Containers retain product residue which may exhibit hazards of material; therefore do not pressurize, cut, glaze, weld or use for any other purposes.

Container could potentially burst or be punctured upon mechanical impact, releasing flammable vapors.

Fire-Fighting Procedures

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Water may be ineffective but can be used to cool containers exposed to heat or flame. Caution should be exercised when using water or foam as frothing may occur, especially if sprayed into containers of hot, burning liquid.

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Special Protective Actions

Wear protective pressure self-contained breathing apparatus (SCBA) and full turnout gear.

SECTION 6) ACCIDENTAL RELEASE MEASURES

Emergency Procedure

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

Do not touch or walk through spilled material.

Isolate hazard area and keep unnecessary people away. Remove all possible sources of ignition in the surrounding area. Notify authorities if any exposure to the general public or the environment occurs or is likely to occur

If spilled material is cleaned up using a regulated solvent, the resulting waste mixture may be regulated.

Recommended Equipment

Wear liquid tight chemical protective clothing in combination with positive pressure self-contained breathing apparatus (SCBA).

Personal Precautions

Avoid breathing vapor. Avoid contact with skin, eye or clothing. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing.

Environmental Precautions

Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers.

Methods and Materials for Containment and Cleaning up

Absorb liquids in vermiculite, dry sand, earth, or similar inert material and deposit in sealed containers for disposal.

SECTION 7) HANDLING AND STORAGE

General

Do not puncture or incinerate (burn) cans. Do not stick pins, nails, or any other sharp objects into opening on top of can. Do not spray in eyes. Do not take internally.

Ventilation Requirements

Use in a well-ventilated place.

Storage Room Requirements

Store and use in a cool, dry, well-ventilated area. Do not store above 120°F. See product label for additional information.

SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection

Wear safety glasses with side shields. Eyewash stations and showers should be available in areas where this material is used and stored.

Skin Protection

Use solvent-resistant protective gloves for prolonged or repeated contact.

Respiratory Protection

Avoid breathing vapors. In restricted areas, use approved chemical/mechanical filters designed to remove a combination of particles and vapor. In confined areas, use an approved air line respirator or hood. A self-contained breathing apparatus is required for vapor concentrations above PEL/TLV limits.

Appropriate Engineering Controls

Ventilation should be sufficient to prevent inhalation of any vapors.

Chemical Name	OSHA TWA (mg/m3)	OSHA TWA (ppm)	OSHA STEL (mg/m3)	OSHA Carcinogen	OSHA Skin designation	OSHA Tables (Z1, Z2, Z3)	ACGIH TWA (mg/m3)	ACGIH TWA (ppm)
ACETONE	2400	1000				1		250
DIACETONE ALCOHOL	240	50				1		50
ETHYL ALCOHOL	1900	1000				1		
Isoparaffinic Petroleum Distillate	2000	500				1	[(L)[N159](L)[N800]]; [5 (I)[N159]5 (I)[N800]];	(L)[N159](L)[N800]
MORPHOLINE	70	20			1	1		20
PROPANE	1800	1000				1		
TOLUENE	0.2	200 (a)/ 300 ceiling				1,2		20

Chemical Name	NIOSH STEL (ppm)	ACGIH STEL (mg/m3)	ACGIH STEL (ppm)	ACGIH Carcinogen	ACGIH TLV Basis	ACGIH Notations	NIOSH TWA (mg/m3)	NIOSH TWA (ppm)
ACETONE			500	A4	URT & eye irr; CNS impair	A4; BEI	590	250
DIACETONE ALCOHOL					URT & eye irr		240	50
ETHYL ALCOHOL			1000	A3	URT irr	A3	1900	1000
Isoparaffinic Petroleum Distillate				[A2[N159]A2 [N800]]; [A4 [N159]A4 [N800]];	URT irr [N159]URT irr [N800]	[A2[N159]A2 [N800]]; [A4 [N159]A4 [N800]];		
MORPHOLINE	30			A4	Eye dam; URT irr	Skin; A4	70	20
PROPANE			Simple asphyxiant (D), explosion hazard (EX)		Asphyxia		1800	1000
TOLUENE	150			A4	Visual impair; female repro; pregnancy loss	A4; BEI	375	100

Chemical Name	NIOSH STEL (mg/m3)	OSHA STEL (ppm)	NIOSH Carcinogen
ACETONE			
DIACETONE ALCOHOL			
ETHYL ALCOHOL			
Isoparaffinic Petroleum Distillate			
MORPHOLINE	105		
TOLUENE	560	500ppm /10 minutes (a)	

(C) - Ceiling limit, (R) - Respirable fraction, A1 - Confirmed Human Carcinogen, A2 - Suspected Human Carcinogen, A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans, A4 - Not Classifiable as a Human Carcinogen, BEI - Substances for which there is a Biological Exposure Index or Indices, CNS - Central nervous system, dam - Damage, eff - Effects, impair - Impairment, irr - Irritation, repro - reproductive, URT - Upper respiratory tract

SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Density	6.79 lb/gal
Density VOC	3.30 lb/gal
% VOC	48.7%
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Appearance	Off white liquid
Odor Description	Pungent

SECTION 10) STABILITY AND REACTIVITY

Stability

Stable under normal storage and handling conditions.

Conditions to Avoid

Avoid heat, sparks, flame, high temperature and contact with incompatible materials.

Dropping containers may cause bursting.

Incompatible Materials

Avoid strong oxidizers, reducers, acids, and alkalis.

Hazardous Reactions/Polymerization

Will not occur.

Hazardous Decomposition Products

No data available.

SECTION 11) TOXICOLOGICAL INFORMATION

Skin Corrosion/Irritation

Causes skin irritation

Likely Route of Exposure

Inhalation, ingestion, skin absorption.

Serious Eye Damage/Irritation

Causes serious eye irritation

Carcinogenicity

No data available.

Germ Cell Mutagenicity

No data available.

Reproductive Toxicity

Suspected of damaging the unborn child

Respiratory/Skin Sensitization

No data available.

Specific Target Organ Toxicity - Single Exposure

May cause drowsiness or dizziness

Specific Target Organ Toxicity - Repeated Exposure

No data available.

Aspiration Hazard

May be fatal if swallowed and enters airways

Acute Toxicity

No data available.

Potential Health Effects - Miscellaneous

0000067-64-1 ACETONE

The following medical conditions may be aggravated by exposure: lung disease, eye disorders, skin disorders. Overexposure may cause damage to any of the following organs/systems: blood, central nervous system, eyes, kidneys, liver, respiratory system, skin.

0000108-88-3 TOLUENE

Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: central nervous system, kidneys, liver, respiratory system, skin. Can be absorbed through the skin in harmful amounts. Recurrent overexposure may result in liver and kidney injury. High airborne levels have produced irregular heart beats in animals and occasional palpitations in humans. Rats exposed to very high airborne levels have exhibited high frequency hearing deficits. The significance of this to man is unknown. WARNING: This chemical is known to the State of California to cause birth defects or other reproductive harm.

Chronic Exposure

0000108-88-3 TOLUENE

TERATOGENIC EFFECTS:Toluene has been Classified as POSSIBLE for humans.

0000108-88-3 TOLUENE

LC50 (rat): 8800 ppm (4-hour exposure) (2)

LC50 (rat): 6000 ppm (6-hour exposure) (3)

LD50 (oral, rat): 2600 to 7500 mg/kg (3,5,11,17)

LD50 (oral, neonatal rat): less than 870 mg/kg (3)

LD50 (dermal, rabbit): 12,225 mg/kg (reported as 14.1 ml/kg) (1)

0000067-64-1 ACETONE

LC50 (male rat): 30000 ppm (4-hour exposure); cited as 71000 mg/m³ (4-hour exposure) (29)

LC50 (male mouse): 18600 ppm (4-hour exposure); cited as 44000 mg/m³ (4-hour exposure) (29)

LD50 (oral, female rat): 5800 mg/kg (24)

LD50 (oral, mature rat): 6700 mg/kg (cited as 8.5 mL/kg) (31)

LD50 (oral, newborn rat): 1750 mg/kg (cited as 2.2 mL/kg) (31)

LD50 (oral, mouse): 3000 mg/kg (32,unconfirmed)

LD50 (dermal, rabbit): Greater than 16000 mg/kg cited as 20 mL/kg) (30)

SECTION 12) ECOLOGICAL INFORMATION

Toxicity

No data available.

Persistence and Degradability

No data available.

Bio-Accumulative Potential

No data available.

Mobility in Soil

No data available.

Other Adverse Effects

No data available.

SECTION 13) DISPOSAL CONSIDERATIONS

Waste Disposal

Under RCRA, it is the responsibility of the user of the product, to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state, and local laws.

Empty containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes. Return drums to reclamation centers for proper cleaning and reuse.

SECTION 14) TRANSPORT INFORMATION

	IATA Information	IMDG Information	U.S. DOT Information
UN number:	UN1950	UN1950	UN1950
Proper shipping name:	Aerosols, flammable	Aerosols	Aerosols
Hazard class:	2.1	2.1	2.1
Packaging group:	NA	NA	NA
Hazardous substance (RQ):			No Data Available
Marine Pollutant:		No Data Available	No Data Available
Note / Special Provision:	(LTD QTY)	(LTD QTY)	(LTD QTY)
Toxic-Inhalation Hazard:			No Data Available

SECTION 15) REGULATORY INFORMATION

CAS	Chemical Name	% By Weight	Regulation List
0000108-88-3	TOLUENE	15% - 24%	SARA313, CERCLA, HAPS, SARA312, VOC, TSCA, RCRA, ACGIH, California Proposition 65 Developmental
0000074-98-6	PROPANE	8% - 18%	SARA312, VOC, TSCA, ACGIH, OSHA
0000067-64-1	ACETONE	8% - 17%	CERCLA, SARA312, TSCA, RCRA, ACGIH, OSHA
0000123-42-2	DIACETONE ALCOHOL	2% - 5%	SARA312, VOC, TSCA, ACGIH, OSHA
0064742-47-8	Isoparaffinic Petroleum Distillate	2% - 5%	SARA312, TSCA
0000064-17-5	ETHYL ALCOHOL	2% - 5%	SARA312, VOC, TSCA, ACGIH, OSHA
0068439-46-3	Ethoxylated Alcohols (C9 - C11)	2% - 5%	SARA312, VOC, TSCA, ACGIH, OSHA
Confidential	Confidential polyacrylate	0.9% - 2%	SARA312, TSCA
0068953-58-2	Quarternary Ammonium CPDS, bis (Hydrogenated Tallow Alkyl) Dimethyl Salt	0.9% - 2%	SARA312, TSCA
0000532-32-1	SODIUM BENZOATE	0.1% - 2%	SARA312, TSCA
0000110-91-8	MORPHOLINE	0.1% - 2%	SARA312, VOC, TSCA, ACGIH, OSHA
0014808-60-7	QUARTZ	Trace	SARA312, TSCA, ACGIH, California Proposition 65 Cancer
0000071-43-2	BENZENE	Trace	SARA313, CERCLA, HAPS, SARA312, VOC, TSCA, RCRA, ACGIH, California Proposition 65 Cancer - Developmental - Male
0001330-20-7	XYLENE	Trace	SARA313, CERCLA, HAPS, SARA312, VOC, TSCA, RCRA, ACGIH, OSHA
0000109-86-4	2-Methoxyethanol	Trace	SARA313, CERCLA, HAPS, SARA312, VOC, TSCA, ACGIH, California Proposition 65 Developmental - Male
0000107-15-3	ETHYLENEDIAMINE	Trace	CERCLA, SARA312, VOC, TSCA

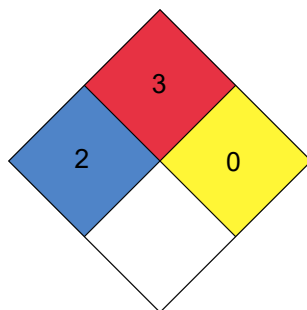
Glossary

ACGIH- American Conference of Governmental Industrial Hygienists; ANSI- American National Standards Institute; Canadian TDG- Canadian Transportation of Dangerous Goods; CAS- Chemical Abstract Service; Chemtrec- Chemical Transportation Emergency Center (US); CHIP- Chemical Hazard Information and Packaging; DSL- Domestic Substances List; EC- Equivalent Concentration; EH40 (UK)- HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA- Emergency Planning and Community Right-To-Know Act; ESL- Effects screening levels; HMIS- Hazardous Material Information Service; LC- Lethal Concentration; LD- Lethal Dose; NFPA- National Fire Protection Association; OEL- Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL- Permissible Exposure Limit; SARA (Title III)- Superfund Amendments and Reauthorization Act; SARA 313- Superfund Amendments and Reauthorization Act, Section 313; SCBA- Self-Contained Breathing Apparatus; STEL- Short Term Exposure Limit; TCEQ- Texas Commission on Environmental Quality; TLV- Threshold Limit Value; TSCA- Toxic Substances Control Act Public Law 94-469; TWA- Time Weighted Value; US DOT- US Department of Transportation; WHMIS- Workplace Hazardous Materials Information System.

HMIS

Health	1 / 2
FLAMMABILITY	3
Physical Hazard	0
Personal Protection	B

NFPA



(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks

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