

SAFETY DATA SHEET

SECTION 1) CHEMICAL PRODUCT AND MANUFACTURER'S IDENTIFICATION

Product ID: 496995
Product Name: ZenaStick HD
Revision Date: Jan 27, 2020
Version: 2.0
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
Fax:
Product/Recommended Uses: Web Spray Adhesive

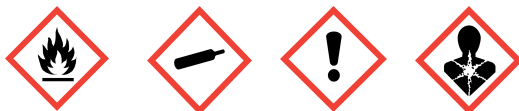
Date Printed: Jan 27, 2020
Supersedes Date: May 1, 2017

SECTION 2) HAZARDS IDENTIFICATION

Classification

Aerosols - Category 1
Gases Under Pressure - Liquefied Gas
Aspiration Hazard - Category 1
Skin Irritation - Category 2
Eye Irritation - Category 2A
Reproductive Toxicity - Category 2
Specific Target Organ Toxicity - Repeated Exposure - 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 fertility or the unborn child.
H336 - May cause drowsiness or dizziness.

H373 - May cause damage to organs through prolonged or repeated exposure.

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.

P264 - Wash hands thoroughly after handling.

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

P201 - Obtain special instructions before use.

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

P260 - Do not breathe mist, vapors or spray.

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

Precautionary Statements - Response

P314 - Get medical attention if you feel unwell.

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

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

P331 - Do NOT induce vomiting.

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.

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

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

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
0000110-54-3	HEXANE	21% - 34%
0000067-64-1	ACETONE	19% - 31%
0068476-86-8	Petroleum gases, liquefied, sweetened	17% - 29%
Proprietary	Hydrocarbon Resin	4% - 10%
0003710-84-7	DIETHYL HYDROXYLAMINE	0.0% - 0.2%
0000128-37-0	BUTYLATED HYDROXYTOLUENE	Trace

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

SECTION 4) FIRST-AID MEASURES

Inhalation

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

If exposed/If you feel unwell/If concerned: Call a POISON CONTROL CENTER/doctor

Eliminate all ignition sources if safe to do so.

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 immediately all 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 persists: Get medical advice/attention. Wash contaminated clothing before re-use.

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 increase 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.

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.

Do not direct a solid stream of water or foam into burning material; this may cause spattering and spread the fire.

Special Protective Actions

Wear goggles and use a self-contained breathing apparatus. If water is used, fog nozzles are preferred.

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

See section 8 for specifics on protective personal equipment (PPE).

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

Wash hands after use.
Do not get in eyes, on skin or on clothing.
Do not breathe vapors or mists.
Use good personal hygiene practices.
Eating, drinking and smoking in work areas is prohibited.
Remove contaminated clothing and protective equipment before entering eating areas.
Eyewash stations and showers should be available in areas where this material is used and stored.

Ventilation Requirements

Use only with adequate ventilation to control air contaminants to their exposure limits. The use of local ventilation is recommended to control emissions near the source.

Storage Room Requirements

Do not cut, drill, grind, weld, or perform similar operations on or near containers. Do not pressurize containers to empty them.
Store at temperatures below 120°F.

SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection

Wear eye protection with side shields or goggles. Wear indirect-vent, impact and splash resistant goggles when working with liquids. If additional protection is needed for entire face, use in combination with a face shield.

Skin Protection

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Use of an apron and over-boots of chemically impervious materials such as neoprene or nitrile rubber is recommended to avoid skin sensitization. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Launder soiled clothes or properly disposed of contaminated material, which cannot be decontaminated.

Respiratory Protection

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 should be followed.

Appropriate Engineering Controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

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
BUTYLATED HYDROXYTOLUENE							2 (IFV)	
DIETHYL HYDROXYLAMINE								2
HEXANE	1800	500				1		50
Petroleum gases, liquefied, sweetened	2000	500				1		

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
BUTYLATED HYDROXYTOLUENE				A4	URT irr	A4	10	
DIETHYL HYDROXYLAMINE					URT irr			
HEXANE					CNS impair; peripheral neuropathy; eye irr	Skin; BEI	180	50
Petroleum gases, liquefied, sweetened								

Chemical Name	NIOSH STEL (mg/m3)	OSHA STEL (ppm)	NIOSH Carcinogen
ACETONE			
BUTYLATED HYDROXYTOLUENE			
DIETHYL HYDROXYLAMINE			
HEXANE			
Petroleum gases, liquefied, sweetened			

(C) - Ceiling limit, (IFV) - Inhalable fraction and vapor, A4 - Not Classifiable as a Human Carcinogen, BEI - Substances for which there is a Biological Exposure Index or Indices, CNS - Central nervous system, impair - Impairment, irr - Irritation, URT - Upper respiratory tract

SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Density	6.67 lb/gal
Density VOC	1.94 lb/gal
% VOC	29.13%
<hr/>	
Appearance	Orange
Odor Threshold	Solvent
Odor Description	N.A.
pH	N.A.
Water Solubility	N.A.
Flammability	Flash point below 73°F/23°C
Vapor Pressure	N.A.
Flash Point	N.A.
Viscosity	N.A.
Lower Explosion Level	N.A.
Upper Explosion Level	N.A.
Vapor Density	N.A.
Melting Point	N.A.
Freezing Point	N.A.
Low Boiling Point	N.A.

High Boiling Point	N.A.
Decomposition Pt	N.A.
Auto Ignition Temp	N.A.
Evaporation Rate	Slower than ether

SECTION 10) STABILITY AND REACTIVITY

Stability

The product is stable under normal storage and handling conditions.

Conditions to Avoid

Dropping containers may cause bursting.

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

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.

Eye contact may lead to permanent damage if not treated promptly.

Carcinogenicity

No data available.

Germ Cell Mutagenicity

No data available.

Reproductive Toxicity

Suspected of damaging fertility or the unborn child.

Respiratory/Skin Sensitization

No data available.

Specific Target Organ Toxicity - Single Exposure

May cause drowsiness or dizziness.

May affect the kidneys and liver.

Specific Target Organ Toxicity - Repeated Exposure

May cause damage to organs through prolonged or repeated exposure.

Repeated or prolonged contact with skin may cause dermatitis. The substance may have effects on the central nervous system and peripheral nervous system. This may result in polyneuropathy.

Aspiration Hazard

May be fatal if swallowed and enters airways

ASPIRATION causes severe lung irritation, coughing, pulmonary edema; excitement followed by depression.

Acute Toxicity

If inhaled, may cause dizziness, nausea, upper respiratory irritation, drowsiness, mental depression or narcosis, difficulty in breathing, irregular heart beats.

000067-64-1 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)

0000110-54-3 HEXANE

LC50 (male rat): 38500 ppm (4-hour exposure); cited as 77000 ppm (271040 mg/m3) (1-hour exposure) (15)
LC50 (rat): 48000 ppm (4-hour exposure) (16)
LC50 (rat): 73680 ppm (260480 mg/m3) (4-hour exposure) (n-hexane and isomers) (1,3)
LD50 (oral, 14-day old rat): 15840 mg/kg (3)
LD50 (oral, young rat): 32340 mg/kg (3)
LD50 (oral, adult rat): 28700 mg/kg (3,16)

Likely Routes of Exposure

Inhalation, Ingestion, Skin contact, Eye contact

Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.

Potential Health Effects - Miscellaneous

000067-64-1 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.

SECTION 12) ECOLOGICAL INFORMATION

Toxicity

Toxic to aquatic life with long lasting effects.

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:	N.A.	N.A.	N.A.
Note / Special Provision:	LTD QTY	LTD QTY	LTD QTY

SECTION 15) REGULATORY INFORMATION

CAS	Chemical Name	% By Weight	Regulation List
0000110-54-3	HEXANE	21% - 34%	SARA313, CERCLA, HAPS, SARA312, VOC, TSCA, ACGIH, California Proposition 65 Male, OSHA
0000067-64-1	ACETONE	19% - 31%	CERCLA, SARA312, TSCA, RCRA, ACGIH, OSHA
0068476-86-8	Petroleum gases, liquefied, sweetened	17% - 29%	SARA312, TSCA, OSHA
0003710-84-7	DIETHYL HYDROXYLAMINE	0.0% - 0.2%	SARA312, VOC, TSCA, ACGIH
0000128-37-0	BUTYLATED HYDROXYTOLUENE	Trace	SARA312, VOC, TSCA, ACGIH

SECTION 16) OTHER INFORMATION

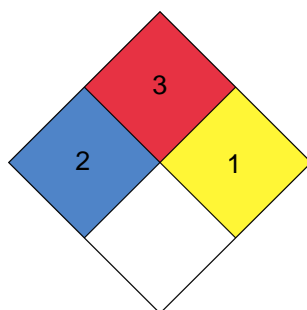
Glossary

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	1
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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