



Revision Number: 004.0

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1. PRODUCT AND COMPANY IDENTIFICATION

Product name: LOCTITE M 3021-1RS E&C known as M-3021-1RS
IDH number: 1263349
Product type/use: Ink
Restriction of Use: None identified
Region: United States
Company address:
 Henkel Corporation
 One Henkel Way
 Rocky Hill, Connecticut 06067
Contact information:
 Telephone: +1 (860) 571-5100
 MEDICAL EMERGENCY Phone: Poison Control Center
 1-877-671-4608 (toll free) or 1-303-592-1711
 TRANSPORT EMERGENCY Phone: CHEMTREC
 1-800-424-9300 (toll free) or 1-703-527-3887
 Internet: www.henkelna.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

WARNING: COMBUSTIBLE LIQUID.

HAZARD CLASS	HAZARD CATEGORY
FLAMMABLE LIQUID	4

PICTOGRAM(S)

None

Precautionary Statements

Prevention: Keep away from heat, sparks, open flames, hot surfaces - no smoking. Wear protective gloves, eye protection, and face protection.
Response: In case of fire: Use foam, dry chemical or carbon dioxide to extinguish.
Storage: Store in a well-ventilated place. Keep cool.
Disposal: Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Component(s)	CAS Number	Percentage*
Butoxyethyl acetate	112-07-2	30 - 60
Graphite	7782-42-5	10 - 30
3,5,5-trimethylcyclohex-2-enone	78-59-1	5 - 10
Carbon black	1333-86-4	1 - 5

* Exact percentages may vary or are trade secret. Concentration range is provided to assist users in providing appropriate protections.

4. FIRST AID MEASURES

Inhalation:	Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Skin contact:	Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothing and footwear. Wash clothing before reuse. Get medical attention.
Eye contact:	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Ingestion:	DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.
Symptoms:	See Section 11.

5. FIRE FIGHTING MEASURES

Extinguishing media:	Water spray (fog), foam, dry chemical or carbon dioxide.
Special firefighting procedures:	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear. In case of fire, keep containers cool with water spray.
Unusual fire or explosion hazards:	Closed containers may rupture (due to build up of pressure) when exposed to extreme heat. Vapors are heavier than air and may travel along floor to an ignition source.
Hazardous combustion products:	Oxides of carbon. Toxic and irritating vapors.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions:	Do not allow product to enter sewer or waterways.
Clean-up methods:	Evacuate and ventilate spill area; dike spill to prevent entry into water system; wear full protective equipment during clean-up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Scrape up as much material as possible. Store in a partly filled, closed container until disposal. Wash spillage site thoroughly with soap and water or detergent solution.

7. HANDLING AND STORAGE

Handling:	Use only with adequate ventilation. Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Refer to Section 8.
Storage:	For safe storage, store between 10 °C (50°F) and 30 °C (86°F) Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use. Keep from freezing.

For information on product shelf life, please review labels on container or check the Technical Data Sheet.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Butoxyethyl acetate	20 ppm TWA	None	None	None
Graphite	2 mg/m3 TWA Respirable fraction.	5 mg/m3 PEL Respirable fraction. 15 mg/m3 PEL Total dust.	None	None
3,5,5-trimethylcyclohex-2-enone	5 ppm Ceiling	25 ppm (140 mg/m3) PEL	None	None
Carbon black	3 mg/m3 TWA Inhalable fraction.	3.5 mg/m3 PEL	None	None

Engineering controls:

Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

Respiratory protection:

Use NIOSH approved respirator if there is potential to exceed exposure limit(s).

Eye/face protection:

Safety goggles or safety glasses with side shields. Full face protection should be used if the potential for splashing or spraying of product exists. Safety showers and eye wash stations should be available.

Skin protection:

Use chemical resistant, impermeable clothing including gloves and either an apron or body suit to prevent skin contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Color:	Black
Odor:	Sweet, peppermint
Odor threshold:	Not available.
pH:	Not applicable
Vapor pressure:	< 1 mm hg
Boiling point/range:	> 186 °C (> 366.8 °F)
Melting point/ range:	Not determined
Specific gravity:	1.17
Vapor density:	> 4.0
Flash point:	71.00 °C (159.8 °F) Closed cup
Flammable/Explosive limits - lower:	0.9 %
Flammable/Explosive limits - upper:	8.5 %
Autoignition temperature:	340.5 °C (644.9 °F)
Flammability:	Not applicable
Evaporation rate:	< 1 (Butyl acetate = 1)
Solubility in water:	Slightly soluble
Partition coefficient (n-octanol/water):	Not determined
VOC content:	699 g/l
Viscosity:	Not available.
Decomposition temperature:	Not available.

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions of storage and use.
Hazardous reactions:	None under normal processing.
Hazardous decomposition products:	Oxides of carbon. Irritating organic vapours.
Incompatible materials:	Strong oxidizing agents. Strong acids and strong bases.
Reactivity:	Not available.
Conditions to avoid:	High temperatures. Heat, flames, sparks and other sources of ignition. Store away from incompatible materials.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure: Skin, Inhalation, Eyes

Potential Health Effects/Symptoms

Inhalation:	May cause respiratory tract irritation. May cause central nervous system effects with nausea, dizziness and headache.
Skin contact:	May cause skin irritation.
Eye contact:	May cause eye irritation. Redness. Tearing.
Ingestion:	May cause gastrointestinal tract irritation if swallowed.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Butoxyethyl acetate	Oral LD50 (Rat) = 2,400 mg/kg Oral LD50 (Rat) = 3,000 mg/kg Dermal LD50 (Rabbit) = 1,500 mg/kg	Behavioral, Blood, Bone Marrow, Central nervous system, Irritant, Kidney, Liver, Lung
Graphite	Inhalation LC50 (Rat, 4 h) = > 2,000 mg/m ³ Inhalation LC50 (Rat, 4 h) = > 2,000 mg/m ³	Lung
3,5,5-trimethylcyclohex-2-enone	Oral LD50 (Rat) = 2,280 mg/kg Oral LD50 (Rat) = 1,000 mg/kg Oral LD50 (Rat) = 2.37 g/kg Oral LD50 (Mouse) = 2.0 g/kg Oral LD50 (Rat) = > 3,200 mg/kg Oral LD50 (Mouse) = > 3,200 mg/kg Dermal LD50 (Rabbit) = 1,500 mg/kg	Blood, Central nervous system, Eyes, Irritant, Kidney, Liver
Carbon black	Oral LD50 (Rat) = > 8,000 mg/kg	Respiratory, Some evidence of carcinogenicity

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Butoxyethyl acetate	No	No	No
Graphite	No	No	No
3,5,5-trimethylcyclohex-2-enone	No	No	No
Carbon black	No	Group 2B	No

12. ECOLOGICAL INFORMATION

Ecological information: Not available.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Follow all local, state, federal and provincial regulations for disposal.

Hazardous waste number: This product contains a component or components identified as hazardous under 40 CFR 261.24. D043. Vinyl Chloride.

14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

U.S. Department of Transportation Ground (49 CFR)

Proper shipping name: Combustible liquid, n.o.s. (2-Butoxyethyl acetate)
Hazard class or division: Combustible Liquid
Identification number: NA 1993
Packing group: III

International Air Transportation (ICAO/IATA)

Proper shipping name: Not regulated
Hazard class or division: None
Identification number: None
Packing group: None

Water Transportation (IMO/IMDG)

Proper shipping name: Not regulated
Hazard class or division: None
Identification number: None
Packing group: None

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status: All components are listed as active or are exempt from listing on the Toxic Substances Control Act (TSCA) inventory.

TSCA 12 (b) Export Notification: None above reporting de minimis

CERCLA/SARA Section 302 EHS: None above reporting de minimis.
CERCLA/SARA Section 311/312: Fire
CERCLA/SARA Section 313: This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372). Butoxyethyl acetate (CAS# 112-07-2).

California Proposition 65: This product contains a chemical known in the State of California to cause cancer. This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Canada Regulatory Information

CEPA DSL/NDL Status: All components are listed on or are exempt from listing on the Canadian Domestic Substances List.

16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: 2,3,8,11,15

Prepared by: Product Safety and Regulatory Affairs

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