



***** MATERIAL SAFETY DATA SHEET *****

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER: 33-9012
 PRODUCT NAME: NATIONAL™ 33-9012
 adhesive for paper converting

COMPANY ADDRESS: Henkel Corporation
 (formerly National Starch & Chemical Company)
 P.O. Box 6500, 10 FINDERNE AVENUE
 BRIDGEWATER, NJ 08807
 USA

EMERGENCY PHONES:
 MEDICAL: 866-359-5657 (Health & Safety Call Center-24 hours)
 TRANSPORT: CHEMTREC: 800-424-9300 (24 hours)
 CHEMTREC International: 703-527-3887 (call collect)
 Customer Service: 888-480-6885

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Not considered as hazardous.
 White Liquid Slight odor

EYE: Slight/mild irritant.
 SKIN CONTACT: Repeated or prolonged skin contact may result in mild irritation.
 INHALATION: Vapor or aerosol, if generated, can cause irritation of the eyes, nose and respiratory tract.
 INGESTION: Ingestion may cause irritation of the gastrointestinal tract. Low oral toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL FAMILY: Water Solution of Soluble Polymers

COMPONENT	CAS NUMBER	CONCENTRATION (% by weight)
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None classified as hazardous under the OSHA Hazard Communication Standard (29CFR 1910.1200).

4. FIRST-AID MEASURES

EYE	Immediately irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 10 minutes. Obtain medical attention.
SKIN CONTACT	Wash skin with soap and water. If symptoms develop, obtain medical attention.
INHALATION	Remove to fresh air. Get medical attention if irritation persists.

INGESTION Treat symptomatically and supportively. Get medical attention. DO NOT attempt to give anything by mouth to an unconscious person.

5. FIREFIGHTING MEASURES

AUTOIGNITION	Not available
FLASH POINT	> 212 °F
EXTINGUISHING MEDIA	Water spray or fog, CO2, dry chemical; Foam
SPECIAL FIREFIGHTING PROCEDURES	Fire fighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes.
FIRE & EXPLOSION HAZARDS	This is a water-based product and presents no particular fire or explosion hazard. Dry polymer film will burn. Product contains low level of organic volatiles which may be emitted at elevated temperatures.
HAZARDOUS COMBUSTION PRODUCTS	Carbon monoxide, carbon dioxide, unknown hydrocarbons.
LOWER EXPLOSION LIMIT (%)	Not applicable
UPPER EXPLOSION LIMIT (%)	Not applicable

6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK PROCEDURES Absorb spillages onto sand, earth or any suitable absorbent material. Sweep up and shovel into waste drums. Wash the spillage area with water. Washings must be prevented from entering surface water drains. Disposal should be in accordance with local, state or national legislation.

For safety and environmental precautions, please review entire Material Safety Data Sheet for necessary information.

7. HANDLING AND STORAGE

STORAGE TEMPERATURE	40 - 100 °F
HANDLING/STORAGE	Product contains low level of organic volatiles which could accumulate in the unvented headspace of drums or bulk storage vessels. Open drums in well ventilated area. Avoid breathing vapors. This material should not be spilled, dumped, or flushed into sewers or public waterways.
SENSITIVITY TO STATIC ELECTRICITY	No
SENSITIVITY TO MECHANICAL IMPACT	No
OTHER PRECAUTIONS	Avoid extreme temperatures. Protect from freezing.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMIT NOTES	Mineral oil mist exposure limits only apply when oil mists could be generated, such as spraying or use at elevated temperatures.
VENTILATION REQUIREMENTS	None required if good ventilation is maintained.
EYE PROTECTION REQUIREMENTS	Wear safety glasses with side shields. Protect against splashing.
GLOVE REQUIREMENTS	The use of chemically resistant gloves is recommended.
CLOTHING REQUIREMENTS	Uniforms, coveralls, or a lab coat should be worn. Rubber boots and apron if exposure is severe.
CHANGE/REMOVAL OF CLOTHING	Remove contaminated clothing and launder before reuse.

WASH REQUIREMENTS	Wash before eating, drinking, or using toilet facilities.
RESPIRATOR REQUIREMENTS	None required under normal handling conditions. Use NIOSH approved respirator if vapor or mist levels are irritating.

9. PHYSICAL AND CHEMICAL PROPERTIES

PURE SUBSTANCE OR MIXTURE	Mixture
PHYSICAL FORM	Liquid
COLOR	White
ODOR	Slight
ODOR THRESHOLD	Not available
PH AS IS	Approximately 4.6
pH IN (1%) SOLUTION	Not applicable
OXIDIZING PROPERTIES	Not applicable
BOILING POINT	> 212 °F
MELTING/FREEZING POINT	Approximately 32 °F
SOLUBILITY IN WATER	Miscible
PARTITION COEFFICIENT (n-octanol/water)	Not applicable
SPECIFIC GRAVITY (WATER=1)	1.092
BULK DENSITY	9.1 lb/gal
EVAPORATION RATE	1 (Water = 1)
VAPOR PRESSURE (mmHg)	17.5 @ 20°C
VAPOR DENSITY (air = 1)	> 1.0
VOLATILES	Approximately 44 %/wt
VOLATILE ORGANIC COMPOUNDS	Estimated to be < 0.009 lb/gal
AUTOIGNITION	Not available
FLASH POINT	> 212 °F

10. STABILITY AND REACTIVITY

STABILITY	Stable
STABILITY DETAIL	Product contains low level of organic volatiles which may be emitted or released in application processes involving the use of heat. Vent all ovens and process vessels to the outside atmosphere.
CONDITIONS TO AVOID	Avoid high temperatures, high alkalinity, oxidizing substances.
HAZARDOUS POLYMERIZATION CONDITIONS	Hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

ROUTE OF ENTRY	Eye Contact; Skin Contact; Inhalation		
CARCINOGEN	<u>IARC</u>	<u>NTP</u>	<u>OSHA Substance</u>
COMPONENT	<u>(group)</u>		<u>Specific Regulation</u>
There is no evidence that this product poses a carcinogenic risk under normal conditions of handling and use.			

PRODUCT TOXICOLOGY
PRODUCT INFORMATION

Unlikely to cause harmful effects under recommended conditions of handling and use.

ACUTE (SHORT TERM) EFFECTS OF EXPOSURE

CHRONIC (LONG TERM) EFFECTS OF EXPOSURE

EFFECTS OF CHRONIC EXPOSURE

The toxicological properties of this product have not been fully evaluated. Use of good industrial hygiene practices is required. Avoid direct contact with skin or eyes. Do not ingest or inhale.

TARGET ORGANS

Not applicable.

12. ECOLOGICAL INFORMATION

POTENTIAL TO BIOACCUMULATE
 AQUATIC TOXICITY

Unknown.
 None Established

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHODS

Disposal should be in accordance with local, state or national legislation.

EMPTY CONTAINER WARNINGS

Empty containers may contain product residue; follow MSDS and label warnings even after they have been emptied.

14. TRANSPORTATION INFORMATION

This section provided for general information only. The shipping description below may not represent requirements for all modes of transportation, packaging, shipping methods or locations outside of the United States.

FOR MORE COMPLETE TRANSPORTATION REGULATORY INFORMATION PLEASE REFER TO THE SHIPPING DOCUMENTS ACCOMPANYING THE SHIPMENT OF THIS PRODUCT.

DOT CLASSIFICATION

Not regulated

The information provided herein may not include the impact of additional regulatory requirements (eg, for materials meeting the definition of a hazardous waste under RCRA, hazardous substances under CERCLA, and/of marine pollutants under CWA or other similar federal, state or local laws) or any associated exceptions or exemptions under regulations applicable to the transport of this material.

15. REGULATORY INFORMATION

USA

TSCA

This product is manufactured in compliance with all provisions of the Toxic Substances Control Act, 15 U.S.C. 2601 et. seq.

SARA - Section 313 (Superfund Amendments and Reauthorization Act of 1986 - 40CFR 372)

CAS NUMBER

CONCENTRATION

(% by weight)

Contains no substances at or above the reporting

threshold under Section 313.

CALIFORNIA PROPOSITION 65

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

Unless a concentration is specified in Section 2 of the MSDS, the below chemical/s are present in trace amounts.

COMPONENT	CAS NUMBER
Formaldehyde	50-00-0
Acetaldehyde	75-07-0

16. OTHER INFORMATION

HMIS® Hazard Ratings

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs by OSHA's 29 CFR 1910.1200, we choose to provide them as a service to our customers using HMIS®. These ratings are to be used only with a fully implemented HMIS® program. To deal adequately with the safe handling of this material, all the information contained in this MSDS must be considered.

NPCA recommends that employers must determine appropriate PPE for the actual conditions under which this product is used in their workplace. For information on PPE codes, consult the HMIS® Implementation Manual.

When two ratings are provided for Health, the first represents the material 'as supplied', and the second represents the material 'in use'.

* = chronic health hazard

HMIS® is a registered trademark of the National Paint and Coatings Association (NPCA).

<u>Health</u>	<u>Flammability</u>	<u>Reactivity</u>
1	0	0

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