

MATERIAL SAFETY DATA

THE GOODYEAR TIRE & RUBBER COMPANY - AKRON, OHIO 44316-0001
GOODYEAR CANADA INC. - ETOBICOKE, ONTARIO M9B 6G2

CHEMICAL TRANSPORTATION EMERGENCY ASSISTANCE CHEMTREC (USA) 800-424-9300, (DISTRICT OF COLUMBIA) 202-483-7616; CANUTEC (CANADA) 613-996-6666 GOODYEAR EMERGENCY ASSISTANCE 216-796-5111

TRADE NAME CHEMIGUM HR	CAS NO. 43063-09-8
CHEMICAL NAME N-(4-anilinophenyl)methacrylamide Terpolymer	SYNONYMS Nitrile Polymer
ISSUED BY Chemical Material Safety Department	MSDS INFORMATION 216-796-1906
	DATE 8-29-89
	MSDS NO. G0727R00
	SUPERSEDES MSDS DATED 1-6-89

1. HAZARDOUS INGREDIENTS AND OTHER COMPONENTS

MATERIAL	%	ACGIH (TLV-TWA)	OSHA (PEL-TWA)
Non-Hazardous - See Section 13			

2. PHYSICAL DATA

APPEARANCE Solid tan to dark green	ODOR NA	MELT POINT NA	SPECIFIC GRAVITY 0.99
VAPOR DENSITY (AIR=1) NA	% VOLATILE BY VOLUME 0.7 max	BULK DENSITY NA	BOILING POINT NA
VAPOR PRESSURE NA	% SOLUBILITY (H2O) Insoluble		

3. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT & METHOD NA	NFPA FIRE HAZARDS IDENTIFICATION SYSTEM
FLAMMABLE LIMITS LEL NA UEL NA	
EXTINGUISHING MEDIA Water, dry chemical, CO2, foam	
SPECIAL FIRE FIGHTING PROCEDURES During emergency conditions, overexposure to thermal decomposition products may cause a health hazard. An approved, self-contained breathing apparatus should be worn.	
UNUSUAL FIRE AND EXPLOSION HAZARDS When exposed to flame, emits acrid fumes.	

* TRADEMARK

Goodyear provides the information herein in compliance with the Federal hazard communication hazards, and to inform of generally applicable precautions and control measures which are evidence, but is not always obtained from sources under the direction or control of Goodyear, accurate, reliable, complete or representative and Buyer may rely thereon only at Buyer's risk. This information is not to be used to trade secret information or to conceal hazards of its products. The data shown on this

PRECAUTIONARY LABELING NOT REQUIRED

Dow Louisiana Division

Compound: **Chemigum HR**

Owner: **J. B. BETHEN**
Date: **12/98**
On TSCA? ☒ No ☐ Yes
*If no, for Research purposes ONLY
T.I.M.E. Sheet ☐ MSDS ☒

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NOTICE: Research sample for use under technically qualified supervision. Upon completion of use, dispose of material safely and in accord with local, state, and federal regulations. If further information is needed on disposal or use, consult the owner.

AS&TL 57 19506-476-1 4-88

4. PHYSIOLOGICAL EFFECTS		
LD50 ORAL (INGESTION) NE	LD50 DERMAL (SKIN CONTACT) NE	LC50 (INHALATION) NE
PRIMARY ROUTE OF EXPOSURE Dermal contact		EXPOSURE LIMIT FOR PRODUCT NA
EFFECTS OF OVEREXPOSURE ACUTE No known effects. This material is a high molecular weight polymer. CHRONIC No known effects.		
5. EMERGENCY AND FIRST AID PROCEDURES		
No procedures are expected to be required.		
6. PHYSICAL HAZARDS		
If exposed to excessive heat or open flame, the product will burn.		
7. SPECIAL PROTECTION INFORMATION		
VENTILATION If heated enough fresh air should flow past the user in order to remove smoke and fume from work area.		
RESPIRATORY Under normal conditions of use, respiratory protection should not be required.		
PROTECTION Safety glasses		DO 085916 CONFIDENTIAL
PROTECTIVE GLOVES NA		OTHER Practice good personal hygiene.

GOODVEAR 00127R00
MSDS NO.

All chemicals should be handled so as to prevent eye contact and excessive or repeated skin contact.
Appropriate eye and skin protection should be employed. Inhalation of dusts and vapors should be avoided.

8. CHEMICAL REACTIVITY

CONDITIONS CAUSING INSTABILITY

Material is stable.

INCOMPATIBILITY (MATERIALS TO AVOID)

None known; none expected.

HAZARDOUS DECOMPOSITION PRODUCTS

By combustion: Oxides of carbon and trace HCN.

SPECIAL SENSITIVITY

NA

9. STORAGE INFORMATION

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep away from excessive heat and open flame.

10. SPILL, LEAK, AND DISPOSAL INFORMATION

STEPS TO BE TAKEN IN CASE MATERIAL IS SPILLED OR RELEASED

Sweep, vacuum, shovel into container for disposal or reuse.

EPA RCRA ID NUMBER

NA

WASTE DISPOSAL METHOD

Incinerate, treat or landfill in accordance with applicable environmental control regulations. Recycle if possible.

11. SHIPPING INFORMATION

DOT SHIPPING NAME

NA

FREIGHT DESCRIPTION

Rubber, Synthetic, Crude

DOT HAZARD CLASSIFICATION

PRIMARY: None
SECONDARY: None

STCC NUMBER

2821220 AA

UN NUMBER

NA

IMO HAZARD CLASS

NA

DOT LABELS REQUIRED

None

EPA / DOT HAZARDOUS SUBSTANCES RG

NA

12. OTHER GOVERNMENT REGULATIONS

The components of this material are included in the US EPA Toxic Substances Control Act - Chemical Substances Inventory.

This product does not contain a SARA S-313 Toxic Chemical above the de minimis thresholds.

13. ADDITIONAL COMMENTS

This material is classified as non-hazardous as defined by the OSHA Hazard Communication Standard CFR Title 29, Part 1910.1200 and the WHMIS Canadian legislation.

MATERIAL SAFETY DATA SHEET



PRODUCT NAME: BUNATAK™ N³

CHEMICAL NATURE: HYDROCARBON RESIN

% ACTIVITY: 100%

PHYSICAL DATA

BOILING POINT, 760 mm. Hg		FREEZE POINT	
SPECIFIC GRAVITY	1.00 - 1.05	VAPOR PRESSURE AT 20°C.	
VAPOR DENSITY		SOLUBILITY IN H ₂ O	NOT SOLUBLE
PER CENT VOLATILES BY WEIGHT	0.5%	IONIC NATURE	
APPEARANCE AND ODOR	AMBER LIQUID		

HAZARDOUS INGREDIENTS

MATERIAL	%	TLV (Units)
NONE		

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (test method)		AUTOIGNITION TEMPERATURE		
FLAMMABLE LIMITS IN AIR, % by volume	300°F (APPROX.)	LOWER		UPPER
EXTINGUISHING MEDIA	CARBON DIOXIDE, FOAM, DRY CHEMICALS			
SPECIAL FIRE FIGHTING PROCEDURES	TREAT AS OIL FIRE			
UNUSUAL FIRE AND EXPLOSION HAZARDS	NONE			

MORTON THIOKOL, INC.

Ventron Division

150 Andover Street, Danvers, MA 01923

TELEPHONE: 617-774-3100 TWX 710-347-6480

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IV. HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	NONE KNOWN
EFFECTS OF OVEREXPOSURE	NONE KNOWN
EMERGENCY AND FIRST AID PROCEDURES	FROM SKIN - WASH AFFECTED AREA WITH SOAP AND WATER FROM EYES - FLUSH WITH WATER, OBTAIN MEDICAL ATTENTION INTERNAL - OBTAIN IMMEDIATE MEDICAL ATTENTION.

V. REACTIVITY DATA

STABILITY		CONDITIONS TO AVOID	
UNSTABLE	STABLE		
	XX		
INCOMPATIBILITY (materials to avoid)			
HAZARDOUS DECOMPOSITION PRODUCTS			
HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID	
May Occur	Will not Occur		
	XX		

VI. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED	WASH WITH STRONG DETERGENT, TREAT AS OIL SPILL, RETRIEVE IN PROPER MANNER.
WASTE DISPOSAL METHOD	IN ACCORDANCE WITH LOCAL REGULATIONS GOVERNING OILY WASTES.

VII. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (specify type)			
VENTILATION	LOCAL EXHAUST	NONE REQUIRED	SPECIAL
	MECHANICAL	GENERAL VENTILATION	OTHER
PROTECTIVE GLOVES		SUITABLE *	EYE PROTECTION *
OTHER PROTECTIVE EQUIPMENT		*IN ACCORDANCE WITH GOOD INDUSTRIAL PRACTICE, HANDLE WITH DUE CARE. AVOID PERSONAL CONTACT.	

VIII. SPECIAL PRECAUTIONS

PRECAUTIONARY LABELING	NONE
OTHER HANDLING AND STORAGE CONDITIONS	NONE DO 085919 CONFIDENTIAL

MORTON THIOKOL, INC.**Ventron Products**

150 ANDOVER STREET
DANVERS, MA 01923

EMERGENCY INFORMATION: ChemTrec 1-800-424-9300

PRODUCT CODE: 25101
ISSUE DATE: Nov. 1985
REVISED DATE: Nov. 1986

FOR INFORMATION CONTACT:

VENTRON HEALTH AND SAFETY DEPT.
(617) 774-3100

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SECTION 1 IDENTIFICATION

PRODUCT NAME: **BUNAWELD-A-780 process aid and tackifier**

SYNONYMS: **None**

CHEMICAL FAMILY: **Proprietary**

CAS #: **None**

MOLECULAR FORMULA: **Proprietary**

SECTION 2 INGREDIENTS

CHEMICAL: **Proprietary mixture of:
Polymeric Resins**

CAS #:

None

%:

100

PEL:

None

TLV — ACGIH:

None

SECTION 3 PHYSICAL DATA

BOILING POINT (760mm Hg): **No data**
SPECIFIC GRAVITY (H₂O = 1): **0.97-0.99**
VAPOR DENSITY (AIR = 1): **No data**

% VOLATILES: **1.0**
FREEZING/MELTING POINT: **No data**
VAPOR PRESSURE (mm Hg at 20°C): **No data**

SOLUBILITY IN WATER (% WT): **No data**
EVAPORATION RATE:
(BUTYL ACETATE = 1) **No data**

APPEARANCE AND ODOR: **Viscous amber liquid**
OTHER: **None**

SECTION 4 FIRE AND EXPLOSION DATA

FLASH POINT (METHOD USED): **C.O.C. 350 °F**
AUTOIGNITION TEMPERATURE: **Not determined**
EXTINGUISHING MEDIA: **CO₂, dry chemical, or foam**

FLAMMABLE LIMITS (% BY VOLUME):

Unknown FL

Unknown UEL

SPECIAL FIRE FIGHTING PROCEDURE: **Treat as an oil fire. If involved in a fire, smoke may be irritating. Wear self-contained breathing apparatus.**

SECTION 5 HEALTH DATA

OSHA (PEL): Not established for product

ACGIH (TLV): Not established for product

A. ANIMAL TOXICITY

LD₅₀: Not establishedLC₅₀: Not established

OTHER: None known

B. EFFECTS OF EXPOSURE (HUMAN)

ACUTE EFFECTS

INGESTION: Not known

SKIN CONTACT: Irritant

EYE CONTACT: Irritant

INHALATION: Headache, nausea, dizziness, and irritation of respiratory system.

MEDICAL CONDITIONS, IF ANY, AGGRAVATED BY THE CHEMICAL: None known

OTHER HEALTH HAZARDS: None known

MOST LIKELY ROUTES OF ENTRY: Skin

CHRONIC EFFECTS

INGESTION: Not known

SKIN CONTACT: Not known

EYE CONTACT: Not known

INHALATION: Not known

OTHER: None known

C. EMERGENCY AND FIRST AID PROCEDURES

INGESTION: Obtain immediate medical attention.

SKIN CONTACT: Wash affected area thoroughly with plenty of water, while removing contaminated clothing. If irritation develops, obtain medical attention.

EYE CONTACT: Immediately flush with large amounts of water for at least fifteen minutes, including under eyelids. Obtain medical attention.

INHALATION: Remove to fresh air. If breathing stops, give artificial respiration. If breathing is difficult, give oxygen. Obtain medical attention.

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SECTION 6 REACTIVITY

INCOMPATIBILITY: None known

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition or combustion may result in CO/CO₂ and other toxic vapors.

CONDITIONS TO AVOID: Ignition sources, heat

STABILITY: Stable
OTHER: None known

HAZARDOUS POLYMERIZATION: Will not occur

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SECTION 7 ENVIRONMENTAL INFORMATION

RCRA CODE: None

TSCA REGISTERED: Yes

SPILL, LEAK OR RELEASE PROCEDURES: Absorb onto inert material and transfer to an appropriate container for disposal.

WASTE DISPOSAL: Contact local, state or federal EPA for proper disposal.

SECTION 8 PROTECTION INFORMATION

VENTILATION REQUIREMENTS: Provide ventilation adequate to prevent objectionable or irritating levels.

RESPIRATORY PROTECTION: Not normally required.

PROTECTIVE GLOVES: Rubber

EYE/FACE PROTECTION: Safety glasses, goggles or face shield

SECTION 9 SPECIAL PRECAUTIONS

HANDLING AND STORAGE: For Industrial Use Only

OTHER PRECAUTIONS: Keep From Freezing

SECTION 10 TRANSPORTATION INFORMATION - U.S. D.O.T.

PROPER SHIPPING NAME: Not regulated

HAZARD CLASSIFICATION: None

UN #: None

SECTION 11 COMMENTS

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To the best of our knowledge the information contained herein is correct. All chemicals may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Final determination of suitability of the chemical is the sole responsibility of the user. Users of any chemical should satisfy themselves that the conditions and methods of use assure that the chemical is used safely. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO THE INFORMATION CONTAINED HEREIN OR THE CHEMICAL TO WHICH THE INFORMATION REFERS.

MORTON THIOKOL, INC.**Ventron Products**150 ANDOVER STREET
DANVERS, MA 01923

EMERGENCY INFORMATION: ChemTrec 1-800-424-9300

PRODUCT CODE: 25103
ISSUE DATE: Nov. 1985
REVISED DATE: Nov. 1986

FOR INFORMATION CONTACT:

VENTRON HEALTH AND SAFETY DEPT
(617) 774-3100DO 085923
CONFIDENTIAL**SECTION 1 IDENTIFICATION**PRODUCT NAME: **BUNATAK** N process aid and tackifier**SYNONYMS: **None**CHEMICAL FAMILY: **Proprietary**CAS #: **None**MOLECULAR FORMULA: **Mixture****SECTION 2 INGREDIENTS**

CHEMICAL:	Dibutyl Phthalate	CAS #:	84-74-2	%:	<40	PEL:	5mg/m3	TLV — ACGIH:	5mg/m3
	*Proprietary mixture of:								
	Polymeric Resin		None		Balance		None		None
	Diluents		None		Balance		None		None

*The proprietary mixture does not contain any hazardous substance as considered on the Massachusetts Substance List.

SECTION 3 PHYSICAL DATA

BOILING POINT (760mm Hg):	No data	% VOLATILES:	0.5	SOLUBILITY IN WATER (% WT):	0.0
SPECIFIC GRAVITY (H ₂ O = 1):	1.00-1.05	FREEZING/MELTING POINT:	No data	EVAPORATION RATE:	No data
VAPOR DENSITY (AIR = 1):	No data	VAPOR PRESSURE (mm Hg at 20°C):	No data	(BUTYL ACETATE = 1)	

APPEARANCE AND ODOR: **Amber liquid, oily odor**

OTHER: **None known**

SECTION 4 FIRE AND EXPLOSION DATA

FLASH POINT (METHOD USED):	No data °F	FLAMMABLE LIMITS (% BY VOLUME):	Unknown LEL	Unknown UEL
AUTOIGNITION TEMPERATURE:	Not determined			
EXTINGUISHING MEDIA:	CO ₂ , dry chemical, or foam			

SPECIAL FIRE FIGHTING PROCEDURE: **If involved in a fire, smoke may be irritating. Wear self-contained breathing apparatus.**

SECTION 5 HEALTH DATA

OSHA (PEL): $5\text{mg}/\text{m}^3$ as Dibutyl PhthalatACGIH (TLV): $5\text{mg}/\text{m}^3$ as Dibutyl Phthalate

A. ANIMAL TOXICITY

LD₅₀: Not establishedLC₅₀: Not established

OTHER: None known

B. EFFECTS OF EXPOSURE (HUMAN)

ACUTE EFFECTS

INGESTION: Irritant

SKIN CONTACT: Irritant

EYE CONTACT: Irritant

INHALATION: Nausea, headache, dizziness

MEDICAL CONDITIONS, IF ANY, AGGRAVATED BY THE CHEMICAL: None known

OTHER HEALTH HAZARDS: None known

MOST LIKELY ROUTES OF ENTRY: Skin and eyes

CHRONIC EFFECTS

INGESTION: None known

SKIN CONTACT: None known

EYE CONTACT: None known

INHALATION: None known

OTHER: None known

C. EMERGENCY AND FIRST AID PROCEDURES

INGESTION: Obtain immediate medical attention.

SKIN CONTACT: Wash thoroughly with water.

EYE CONTACT: Immediately flush with large amounts of water for at least fifteen minutes, including under eyelids. Obtain medical attention.

INHALATION: Remove to fresh air.

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SECTION 6 REACTIVITYINCOMPATIBILITY: **Strong oxidizers, alkalies and acids**HAZARDOUS DECOMPOSITION PRODUCTS: **Thermal decomposition and combustion may result in CO/CO₂ and other toxic vapors**CONDITIONS TO AVOID: **None known**STABILITY: **Stable**HAZARDOUS POLYMERIZATION: **Will not occur**OTHER: **None known**D0 085925
CONFIDENTIAL**SECTION 7 ENVIRONMENTAL INFORMATION**RCRA CODE: **None**TSCA REGISTERED: **Yes**SPILL, LEAK OR RELEASE PROCEDURES: **Absorb onto inert material and transfer to an appropriate container for disposal.**WASTE DISPOSAL: **Contact local, state or federal EPA for proper disposal****SECTION 8 PROTECTION INFORMATION**VENTILATION REQUIREMENTS: **Provide adequate ventilation to maintain levels below PEL/TLV**RESPIRATORY PROTECTION: **Not normally required**PROTECTIVE GLOVES: **Rubber**EYE/FACE PROTECTION: **Safety glasses, goggles or face shield****SECTION 9 SPECIAL PRECAUTIONS**HANDLING AND STORAGE: **For Industrial Use Only**OTHER PRECAUTIONS: **None****SECTION 10 TRANSPORTATION INFORMATION - U.S. D.O.T.**PROPER SHIPPING NAME: **Not regulated**HAZARD CLASSIFICATION: **None**UN #: **None****SECTION 11 COMMENTS******Trademark of Morton Thiokol, Inc.**

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