

1. Identification

Product identifier N-FLASH®
Other means of identification Not available.
Recommended use Not available.
Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name CETCO
Address 2870 Forbs Avenue
 Hoffman Estates, IL 60192
 United States
Telephone General Information 800 527-9948
Website <http://www.cetco.com/>
E-mail safety.data@amcol.com
Emergency phone number .
Americas 1.866.519.4752 (US, Canada, Mexico) 1 760 476 3962

2. Hazard(s) identification

Physical hazards Not classified.
Health hazards Not classified.
Environmental hazards Not classified.
OSHA defined hazards Not classified.

Label elements

Hazard symbol None.
Signal word None.
Hazard statement The mixture does not meet the criteria for classification.
Prevention Observe good industrial hygiene practices.
Response If exposed or concerned: Get medical advice/attention.
Storage Store away from incompatible materials.
Disposal Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information Not applicable.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
CARBON BLACK		1333-86-4	80.4
ZINC OXIDE		1314-13-2	3.8
ETHYLENE THIOUREA		96-45-7	0.5
Other components below reportable levels			15.3

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

Composition comments For the full text of the R phrases mentioned in this Section, see Section 15.

4. First-aid measures

Inhalation Oxygen or artificial respiration if needed.
Skin contact Wash off with soap and water. Get medical attention if irritation develops or persists.
Eye contact Get medical attention if irritation develops or persists.
Ingestion Have victim rinse mouth thoroughly with water. If ingestion of a large amount does occur, seek medical attention.

Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water spray. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂). Dry chemical (preferred), alcohol foam, water.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	In the event of fire, wear self-contained breathing apparatus.
Fire-fighting equipment/instructions	In the event of fire, cool tanks with water spray.
Specific methods	Cool containers exposed to flames with water until well after the fire is out.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Sweep up or gather material and place in appropriate container for disposal.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not contaminate water.

7. Handling and storage

Precautions for safe handling	Avoid prolonged exposure. Avoid breathing vapors from heated material.
Conditions for safe storage, including any incompatibilities	Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). Store in a cool place in original container and protect from sunlight.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
CARBON BLACK (CAS 1333-86-4)	PEL	3.5 mg/m ³	
ZINC OXIDE (CAS 1314-13-2)	PEL	5 mg/m ³	Respirable fraction.

Additional components	Type	Value	Form
INERT OR NUISANCE DUSTS (CAS SEQ250)	PEL	5 mg/m ³	Respirable fraction.

		15 mg/m ³	Total dust.
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US. OSHA Table Z-3 (29 CFR 1910.1000)

Additional components	Type	Value	Form
INERT OR NUISANCE DUSTS (CAS SEQ250)	TWA	5 mg/m ³	Respirable fraction.
		15 mg/m ³	Total dust.
		50 millions of particle	Total dust.
		15 millions of particle	Respirable fraction.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
CARBON BLACK (CAS 1333-86-4)	TWA	3 mg/m ³	Inhalable fraction.
ZINC OXIDE (CAS 1314-13-2)	STEL	10 mg/m ³	Respirable fraction.
Additional components	Type	Value	Form
INERT OR NUISANCE DUSTS (CAS SEQ250)	TWA	3 mg/m ³	Respirable particles.
		10 mg/m ³	Inhalable particles.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
CARBON BLACK (CAS 1333-86-4)	TWA	0.1 mg/m ³	
ZINC OXIDE (CAS 1314-13-2)	Ceiling	15 mg/m ³	Dust.
	STEL	10 mg/m ³	Fume.
	TWA	5 mg/m ³	Dust.
		5 mg/m ³	Fume.

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Wear safety glasses with side shields (or goggles).

Hand protection

When handling hot material, use heat resistant gloves.

Other

Wear suitable protective clothing.

Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Not normally needed for routine handling. If curing fumes are a problem, a NIOSH approved air purifying respirator with HEPA filters may be used. Select and use respirators in accordance with OSHA 1910.134 and the respirator manufacturer.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Wash hands before breaks and at the end of workday.

9. Physical and chemical properties**Appearance**

Uncured Rubber

Physical state

Solid.

Form

Solid.

Color

Black.

Odor

Rubber

Odor threshold

Not available.

pH

Not available.

Melting point/freezing point

Not available.

Initial boiling point and boiling range

7592 °F (4200 °C) estimated

Flash point

Not available.

Evaporation rate

Not available.

Flammability (solid, gas)

Not available.

Upper/lower flammability or explosive limits**Flammability limit - lower (%)**

Not available.

Flammability limit - upper (%)

Not available.

Explosive limit - lower (%)

Not available.

Explosive limit - upper (%)

Not available.

Vapor pressure

Not available.

Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	1.97 g/cm3 estimated
Percent volatile	0 % estimated
Specific gravity	1.97 estimated

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Stable at normal conditions.
Possibility of hazardous reactions	Will not occur. Hazardous polymerization does not occur.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Upon decomposition, this product may yield sulfur dioxide, carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. Dimethylnitrosamine and Nitrosomorpholine at elevated temperatures.

11. Toxicological information

Information on likely routes of exposure

Ingestion	Expected to be a low ingestion hazard.
Inhalation	Prolonged inhalation may be harmful.
Skin contact	Not available.
Eye contact	Direct contact with eyes may cause temporary irritation.

Symptoms related to the physical, chemical and toxicological characteristics Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity

Product	Species	Test Results
N-FLASH® (CAS Mixture)		
Acute		
<i>Dermal</i>		
LD50	Rat	3731 mg/kg
<i>Oral</i>		
LD50	Rat	15991 mg/kg
Components		
CARBON BLACK (CAS 1333-86-4)		
Acute		
<i>Oral</i>		
LD50	Rat	> 8000 mg/kg
ETHYLENE THIOUREA (CAS 96-45-7)		
Acute		
<i>Oral</i>		
LD50	Mouse	3000 mg/kg
	Rat	1832 mg/kg
<i>Other</i>		
LD50	Mouse	200 mg/kg

Components	Species	Test Results
ZINC OXIDE (CAS 1314-13-2)		
Acute		
<i>Inhalation</i>		
LC50	Mouse	> 5.7 mg/l, 4 Hours
<i>Oral</i>		
LD50	Mouse	7950 mg/kg
	Rat	> 5 g/kg
		5000.0001 mg/kg
<i>Other</i>		
LD50	Rat	240 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization

Respiratory sensitization Not available.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity

A class of materials called nitrosamines are carcinogens in animals and therefore are suspected of causing cancer in humans. Because many rubber materials contain amine based ingredients, trace residual amounts (well below 0.1%) of nitrosamine are likely to exist in most rubber compounds as a result of being formed in earlier processing steps. Subjecting this product to certain processing steps can form higher amounts of nitrosamines which are believed to present a health hazard. Avoid mixing or exposing this product with: nitrates, nitrites, nitrogen oxides or other nitrosamines as potentially hazardous levels of nitrosamines will be formed. Salt bath curing (using nitrate/nitrite sales) can be expected to produce hazardous amounts of volatile nitrosamines. Emissions from such processes must be exhausted. Employees must avoid inhaling fumes from hot rubber processing.

IARC Monographs. Overall Evaluation of Carcinogenicity

CARBON BLACK (CAS 1333-86-4) 2B Possibly carcinogenic to humans.
 ETHYLENE THIOUREA (CAS 96-45-7) 3 Not classifiable as to carcinogenicity to humans.

US. National Toxicology Program (NTP) Report on Carcinogens

ETHYLENE THIOUREA (CAS 96-45-7) Reasonably Anticipated to be a Human Carcinogen.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not available.

Chronic effects Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results
ETHYLENE THIOUREA (CAS 96-45-7)		
Fish	LC50	Fish 7500 mg/L, 96 Hours
Aquatic		
Fish	LC50	Guppy (Poecilia reticulata) 5600 - 10000 mg/l, 96 hours
ZINC OXIDE (CAS 1314-13-2)		
Aquatic		
Fish	LC50	Fathead minnow (Pimephales promelas) 2246 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Partition coefficient n-octanol / water (log Kow)

ETHYLENE THIOUREA -0.66

Mobility in soil No data available.**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.**13. Disposal considerations****Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site.**Local disposal regulations** Dispose in accordance with all applicable regulations.**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.**US RCRA Hazardous Waste U List: Reference**

ETHYLENE THIOUREA (CAS 96-45-7) U116

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.**14. Transport information****DOT**

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not available.**15. Regulatory information****US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
OSHA Process Safety Standard: This material is not known to be hazardous by the OSHA Highly Hazardous Process Safety Standard, 29 CFR 1910.119.**CERCLA Hazardous Substance List (40 CFR 302.4)**

ETHYLENE THIOUREA (CAS 96-45-7) LISTED

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)**Hazard categories** Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No**SARA 302 Extremely hazardous substance** Yes**SARA 311/312 Hazardous chemical** Yes**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
ETHYLENE THIOUREA	96-45-7	0.5

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

ETHYLENE THIOUREA (CAS 96-45-7)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.**US state regulations** WARNING: This product contains a chemical known to the State of California to cause cancer.
WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

US - Pennsylvania RTK - Hazardous Substances: Listed substance

CARBON BLACK (CAS 1333-86-4)
 ETHYLENE THIOUREA (CAS 96-45-7)
 ZINC OXIDE (CAS 1314-13-2)

US. Massachusetts RTK - Substance List

CARBON BLACK (CAS 1333-86-4)
 ETHYLENE THIOUREA (CAS 96-45-7)
 ZINC OXIDE (CAS 1314-13-2)

US. New Jersey Worker and Community Right-to-Know Act

ETHYLENE THIOUREA (CAS 96-45-7) 500 lbs

US. Rhode Island RTK

ETHYLENE THIOUREA (CAS 96-45-7)

US. California Proposition 65

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

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

CARBON BLACK (CAS 1333-86-4) Listed: February 21, 2003
 ETHYLENE THIOUREA (CAS 96-45-7) Listed: January 1, 1988

US - California Proposition 65 - CRT: Listed date/Developmental toxin

ETHYLENE THIOUREA (CAS 96-45-7) Listed: January 1, 1993

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
 A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	19-August-2014
Revision date	19-August-2014
Version #	12
Further information	This safety datasheet only contains information relating to safety and does not replace any product information or product specification.
HMIS® ratings	Health: 2* Flammability: 1 Physical hazard: 0
NFPA ratings	Health: 2 Flammability: 1 Instability: 0

Disclaimer

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Revision Information

GHS: Classification