

# **Safety Data Sheet**

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# **SECTION 1: Identification**

#### 1.1. Product identifier

3M<sup>TM</sup> Complete Fuel System Cleaner, 08813, 38814

## **Product Identification Numbers**

60-4550-3265-0, 60-4550-4499-4, 60-4550-6487-7, 60-4550-8195-4

#### 1.2. Recommended use and restrictions on use

#### Recommended use

Automotive, Clean Automotive Fuel System Components

## 1.3. Supplier's details

**MANUFACTURER:** 3M

**DIVISION:** Automotive Aftermarket

**ADDRESS:** 3M Center, St. Paul, MN 55144-1000, USA **Telephone:** 1-888-3M HELPS (1-888-364-3577)

## 1.4. Emergency telephone number

1-800-364-3577 or (651) 737-6501 (24 hours)

## **SECTION 2: Hazard identification**

The label elements below were prepared in accordance with OSHA Hazard Communication Standard, 29 CFR 1910.1200. This information may be different from the actual product label information for labels regulated by other agencies.

### 2.1. Hazard classification

Flammable Liquid: Category 3. Aspiration Hazard: Category 1. Carcinogenicity: Category 2.

Specific Target Organ Toxicity (central nervous system): Category 3.

### 2.2. Label elements

#### Signal word

Danger

## **Symbols**

Flame | Exclamation mark | Health Hazard |

#### **Pictograms**







#### **Hazard Statements**

Flammable liquid and vapor.

May be fatal if swallowed and enters airways. May cause drowsiness or dizziness.

Suspected of causing cancer.

## Precautionary Statements

## General:

Keep out of reach of children.

If medical advice is needed, have product container or label at hand.

#### **Prevention:**

Obtain special instructions before use.

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

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Ground/bond container and receiving equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Keep container tightly closed.

Use explosion-proof electrical/ventilating/lighting equipment.

Avoid breathing dust/fume/gas/mist/vapors/spray.

Use only outdoors or in a well-ventilated area.

Wear protective gloves and eye/face protection.

## Response:

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

Do NOT induce vomiting.

In case of fire: Use a fire fighting agent suitable for flammable liquids and solids such as dry chemical or carbon dioxide to extinguish.

#### Storage:

Store in a well-ventilated place. Keep container tightly closed.

Keep cool.

Store locked up.

## Disposal:

Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

### Notes to Physician:

Not applicable

#### 2.3. Hazards not otherwise classified

None.

11% of the mixture consists of ingredients of unknown acute oral toxicity.

14% of the mixture consists of ingredients of unknown acute dermal toxicity.

29% of the mixture consists of ingredients of unknown acute inhalation toxicity.

# **SECTION 3: Composition/information on ingredients**

Ingredient	C.A.S. No.	% by Wt
Kerosene	8008-20-6	60 - 100 Trade Secret *
Sweetened Middle Distillates (Petroleum)	64741-86-2	10 - 30 Trade Secret *
Polyether Amine	Trade Secret*	5 - 15 Trade Secret *
Propoxylated Alcohol	Trade Secret*	1 - 5 Trade Secret *
Heavy Aromatic Solvent Naphtha (Petroleum)	64742-94-5	0.5 - 1.5 Trade Secret *
Naphthalene	91-20-3	< 0.5 Trade Secret *

<sup>\*</sup>The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

## **SECTION 4: First aid measures**

## 4.1. Description of first aid measures

#### Inhalation:

Remove person to fresh air. If you feel unwell, get medical attention.

#### **Skin Contact:**

Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

## **Eye Contact:**

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

### If Swallowed:

Do not induce vomiting. Get immediate medical attention.

### 4.2. Most important symptoms and effects, both acute and delayed

See Section 11.1. Information on toxicological effects.

## 4.3. Indication of any immediate medical attention and special treatment required

Not applicable

# **SECTION 5: Fire-fighting measures**

## 5.1. Suitable extinguishing media

In case of fire: Use a fire fighting agent suitable for flammable liquids and solids such as dry chemical or carbon dioxide to extinguish.

#### 5.2. Special hazards arising from the substance or mixture

Closed containers exposed to heat from fire may build pressure and explode.

## **Hazardous Decomposition or By-Products**

SubstanceConditionAldehydesDuring CombustionCarbon monoxideDuring CombustionCarbon dioxideDuring Combustion

## 5.3. Special protective actions for fire-fighters

Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture.

## **SECTION 6: Accidental release measures**

## 6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

### 6.2. Environmental precautions

Avoid release to the environment. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

## 6.3. Methods and material for containment and cleaning up

Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Seal the container. Dispose of collected material as soon as possible.

# **SECTION 7: Handling and storage**

### 7.1. Precautions for safe handling

Keep out of reach of children. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Wear low static or properly grounded shoes. Use personal protective equipment (gloves, respirators, etc.) as required. To minimize the risk of ignition, determine applicable electrical classifications for the process using this product and select specific local exhaust ventilation equipment to avoid flammable vapor accumulation. Vapors may travel long distances along the ground or floor to an ignition source and flash back.

## 7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store away from acids. Store away from oxidizing agents.

# **SECTION 8: Exposure controls/personal protection**

### 8.1. Control parameters

## Occupational exposure limits

Ingredient	C.A.S. No.	Agency	Limit type	<b>Additional Comments</b>
Heavy Aromatic Solvent Naphtha	64742-94-5	Chemical	TWA:17 ppm(100 mg/m3)	
(Petroleum)		Manufacturer		
		Rec Guid		
Kerosene	8008-20-6	Amer Conf of	TWA(as total hydrocarbon	Skin Notation
		Gov. Indust.	vapor, non-aerosol):200	

		Hyg.	mg/m3	
Kerosene	8008-20-6	Chemical	TWA:500 ppm(2000 mg/m3)	
		Manufacturer		
		Rec Guid		
Naphthalene	91-20-3	Amer Conf of	TWA:10 ppm;STEL:15 ppm	Skin Notation
		Gov. Indust.		
		Hyg.		
Naphthalene	91-20-3	US Dept of	TWA:50 mg/m3(10 ppm)	
		Labor - OSHA		

Amer Conf of Gov. Indust. Hyg.: American Conference of Governmental Industrial Hygienists

American Indust. Hygiene Assoc : American Industrial Hygiene Association

Chemical Manufacturer Rec Guid: Chemical Manufacturer's Recommended Guidelines

US Dept of Labor - OSHA: United States Department of Labor - Occupational Safety and Health Administration

TWA: Time-Weighted-Average STEL: Short Term Exposure Limit

CEIL: Ceiling

#### 8.2. Exposure controls

### 8.2.1. Engineering controls

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment. Use explosion-proof ventilation equipment.

### 8.2.2. Personal protective equipment (PPE)

#### Eye/face protection

Wear protective gloves and eye/face protection. Wear eye/face protection. Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended: Safety Glasses with side shields

#### Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Wear protective gloves.

Gloves made from the following material(s) are recommended: Neoprene

Nitrile Rubber

## Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

Half facepiece or full facepiece air-purifying respirator suitable for organic vapors

For questions about suitability for a specific application, consult with your respirator manufacturer.

# **SECTION 9: Physical and chemical properties**

# 9.1. Information on basic physical and chemical properties

General Physical Form: Liquid

Odor, Color, Grade: Light yellow liquid; Solvent/kerosene odor.

**Odor threshold** No Data Available

#### 3M<sup>TM</sup> Complete Fuel System Cleaner, 08813, 38814 02/11/14

pH No Data AvailableMelting point No Data Available

**Boiling Point** <=550 °F

Flash Point >=120 °F [Test Method: Closed Cup]

Evaporation rateNo Data AvailableFlammability (solid, gas)Not ApplicableFlammable Limits(LEL)No Data AvailableFlammable Limits(UEL)No Data AvailableVapor PressureNo Data AvailableVapor DensityNo Data Available

**Density** 0.83 g/ml

**Specific Gravity** 0.83 [*Ref Std:* WATER=1]

Solubility In WaterNo Data AvailableSolubility- non-waterNo Data AvailablePartition coefficient: n-octanol/ waterNo Data AvailableDecomposition temperatureNo Data Available

Viscosity 6.04 centipoise [Test Method: Brookfield]
Hazardous Air Pollutants 0.449 % weight [Test Method: Calculated]

**Volatile Organic Compounds**88.8 % weight [*Test Method:* calculated per CARB title 2] **Volatile Organic Compounds**723 g/l [*Test Method:* calculated SCAQMD rule 443.1]

**Percent volatile** 87.2 % weight [Test Method: Estimated]

VOC Less H2O & Exempt Solvents 723 g/l [Test Method: calculated SCAQMD rule 443.1]

# **SECTION 10: Stability and reactivity**

### 10.1. Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

## 10.2. Chemical stability

Stable.

## 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

### 10.4. Conditions to avoid

Sparks and/or flames

## 10.5. Incompatible materials

Strong acids

Strong oxidizing agents

## 10.6. Hazardous decomposition products

**Substance** Condition

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

# **SECTION 11: Toxicological information**

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be

relevant to the material as a whole.

## 11.1. Information on Toxicological effects

### Signs and Symptoms of Exposure

#### Based on test data and/or information on the components, this material may produce the following health effects:

### Inhalation:

May be harmful if inhaled.

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

May cause target organ effects after inhalation.

#### **Skin Contact:**

May be harmful in contact with skin.

Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness. Contact with the skin during product use is not expected to result in significant irritation.

#### Eye Contact:

Contact with the eyes during product use is not expected to result in significant irritation.

#### **Ingestion:**

Chemical (Aspiration) Pneumonitis: Signs/symptoms may include coughing, gasping, choking, burning of the mouth, difficulty breathing, bluish colored skin (cyanosis), and may be fatal.

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

May cause target organ effects after ingestion.

## **Target Organ Effects:**

#### Single exposure may cause:

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

## Carcinogenicity:

Contains a chemical or chemicals which can cause cancer.

Ingredient	C.A.S. No.	Class Description	Regulation
Naphthalene	91-20-3	Anticipated human carcinogen	National Toxicology Program Carcinogens
Naphthalene	91-20-3	Grp. 2B: Possible human carc.	International Agency for Research on Cancer

#### **Toxicological Data**

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

**Acute Toxicity** 

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE 2,374.8 mg/kg
Overall product	Inhalation- Vapor(4 hr)		No data available; calculated ATE 23.1 mg/l
Overall product	Ingestion		No data available; calculated ATE > 5,000 mg/kg
Kerosene	Dermal	Rabbit	LD50 > 2,000 mg/kg
Kerosene	Inhalation-	Rat	LC50 > 5  mg/l
	Vapor (4		

	hours)		
Kerosene	Ingestion	Rat	LD50 > 5,000 mg/kg
Sweetened Middle Distillates (Petroleum)	Dermal	Rabbit	LD50 > 2,000 mg/kg
Sweetened Middle Distillates (Petroleum)	Ingestion	Rat	LD50 > 5,000 mg/kg
Propoxylated Alcohol	Ingestion		LD50 estimated to be > 5,000 mg/kg
Heavy Aromatic Solvent Naphtha (Petroleum)	Dermal	Rabbit	LD50 > 2,000 mg/kg
Heavy Aromatic Solvent Naphtha (Petroleum)	Ingestion	Rat	LD50 > 5,000 mg/kg
Naphthalene	Dermal	Human	LD50 estimated to be 2,000 - 5,000 mg/kg
Naphthalene	Inhalation-	Human	LC50 estimated to be 20 - 50 mg/l
	Vapor		
Naphthalene	Ingestion	Human	LD50 estimated to be 300 - 2,000 mg/kg

ATE = acute toxicity estimate

## Skin Corrosion/Irritation

Name	Species	Value
Kerosene	Rabbit	Minimal irritation
Heavy Aromatic Solvent Naphtha (Petroleum)	Rabbit	Irritant
Naphthalene	Rabbit	Minimal irritation

Serious Eye Damage/Irritation

Name	Species	Value
Kerosene	Rabbit	No significant irritation
Heavy Aromatic Solvent Naphtha (Petroleum)	Rabbit	Mild irritant
Naphthalene	Rabbit	No significant irritation

## **Skin Sensitization**

Name	Species	Value
Kerosene	Guinea	Some positive data exist, but the data are not
	pig	sufficient for classification
Heavy Aromatic Solvent Naphtha (Petroleum)	Guinea	Not sensitizing
	pig	

**Respiratory Sensitization** 

Name	Species Value
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**Germ Cell Mutagenicity** 

Name	Route	Value
Kerosene	In Vitro	Some positive data exist, but the data are not
		sufficient for classification
Kerosene	In vivo	Some positive data exist, but the data are not
		sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Kerosene	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Heavy Aromatic Solvent Naphtha (Petroleum)	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Naphthalene	Inhalation	Multiple animal species	Carcinogenic

# **Reproductive Toxicity**

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
Kerosene	Dermal	Not toxic to female reproduction	Rat	NOAEL 494 mg/kg/day	premating & during gestation
Kerosene	Dermal	Not toxic to male reproduction	Rat	NOAEL 494 mg/kg/day	premating & during gestation

Kerosene	Dermal	Not toxic to development	Rat	NOAEL 494 mg/kg/day	premating & during
					gestation
Kerosene	Inhalation	Not toxic to development	Rat	NOAEL 400	during
				ppm	organogenesi
					s

# Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Kerosene	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL not available	occupational exposure
Kerosene	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL not available	not available
Kerosene	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL not available	poisoning and/or abuse
Kerosene	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL not available	not applicable
Kerosene	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 18,912 mg/kg	not applicable
Kerosene	Ingestion	heart   hematoppoitic system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL not available	poisoning and/or abuse
Heavy Aromatic Solvent Naphtha (Petroleum)	Inhalation	central nervous system depression	May cause drowsiness or dizziness		NOAEL Not available	
Heavy Aromatic Solvent Naphtha (Petroleum)	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
Naphthalene	Ingestion blood		Causes damage to organs	Human	NOAEL Not available	poisoning and/or abuse

**Specific Target Organ Toxicity - repeated exposure** 

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Kerosene	Dermal	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 500 mg/kg/day	13 weeks
Kerosene	Dermal	liver   immune system   kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 500 mg/kg/day	2 years
Kerosene	Dermal	nervous system	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 2,700 mg/kg/day	1 weeks
Kerosene	Dermal	heart   muscles   respiratory system	All data are negative	Mouse	NOAEL 500 mg/kg/day	2 years
Kerosene	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL not available	1 years
Kerosene	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 0.231 mg/l	14 weeks
Kerosene	Inhalation	heart	Some positive data exist, but the data are not sufficient for classification	Guinea pig	LOAEL 20.4 mg/l	not available
Kerosene	Inhalation	hematopoietic system   muscles   respiratory system	All data are negative	Multiple animal species	NOAEL 0.1 mg/l	13 weeks
Naphthalene	Dermal	blood	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	poisoning and/or abuse
Naphthalene	Dermal	eyes	Some positive data exist, but the	Human	NOAEL Not	occupational

			data are not sufficient for classification		available	exposure
Naphthalene	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL .01 mg/l	13 weeks
Naphthalene	Inhalation	blood	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	poisoning and/or abuse
Naphthalene	Inhalation	eyes	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Naphthalene	Ingestion	blood	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	poisoning and/or abuse
Naphthalene	Ingestion	eyes	May cause damage to organs though prolonged or repeated exposure	Rabbit	LOAEL 500 mg/kg/day	15 days

#### **Aspiration Hazard**

Name	Value		
Kerosene	Aspiration hazard		
Heavy Aromatic Solvent Naphtha (Petroleum)	Aspiration hazard		

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

# **SECTION 12: Ecological information**

## **Ecotoxicological information**

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

#### Chemical fate information

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

# **SECTION 13: Disposal considerations**

## 13.1. Disposal methods

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Incinerate in a permitted waste incineration facility. As a disposal alternative, Dispose of waste product in a permitted industrial waste facility. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

# **SECTION 14: Transport Information**

For Transport Information, please visit <a href="http://3M.com/Transportinfo">http://3M.com/Transportinfo</a> or call 1-800-364-3577 or 651-737-6501.

# **SECTION 15: Regulatory information**

## 15.1. US Federal Regulations

Contact 3M for more information.

### 311/312 Hazard Categories:

Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No Immediate Hazard - Yes Delayed Hazard - No

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

 Ingredient
 C.A.S. No
 % by Wt

 Naphthalene
 91-20-3
 < 0.5</td>

## 15.2. State Regulations

Contact 3M for more information.

### California Proposition 65

IngredientC.A.S. No.ClassificationNaphthalene91-20-3Carcinogen

WARNING: This product contains a chemical known to the State of California to cause cancer.

### 15.3. Chemical Inventories

The components of this product are in compliance with the chemical notification requirements of TSCA.

Contact 3M for more information.

## 15.4. International Regulations

Contact 3M for more information.

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

## **SECTION 16: Other information**

## NFPA Hazard Classification

Health: 2 Flammability: 2 Instability: 1 Special Hazards: None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

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