

**Material Safety  
Data Sheet**

**Carbomix Black Masterbatch**

**1. GENERAL INFORMATION**

Chemical Name:	Styrene-Butadiene Rubber, Oil-extended (treated) Black Masterbatch
CAS Number:	NA/mixture (see Section 2)
CAS Name (Rubber only):	1,3-Butadiene polymer with Ethenylbenzene
Applicable Grades:	1805, 1815, MDS521
Product Use:	Rubber articles and rubber modified articles
Prepared by:	Environmental and Safety Services
Telephone No.:	(504) 355-5655
Manufactured by:	DSM Copolymer, Inc.
Street Address:	5955 Scenic Highway, Baton Rouge, LA 70805
Mailing Address:	P. O. Box 2591, Baton Rouge, LA 70821
Date prepared:	June 23, 1993
Supersedes:	CR 2281(R 9/90)

**2. CHEMICAL COMPOSITION**

Ingredient	CAS #	Wt. % Maximum	Hazard Classification
Styrene-Butadiene Rubber	9003-55-8	45	NH
Disproportionated Tall Oil	61790-12-3/8052-10-6	4	(see Section 3)
Petroleum Oil severely treated (see Note 1)	64741-96-4	25	NH
Carbon Black	1333-86-4	38	Hazardous by OSHA
Phosphited Polyalkyl polyphenol	Not assigned	1.2	NH

**3. FIRE AND EXPLOSION HAZARD DATA**

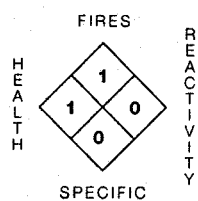
Flash Point Method:	NE, 220 °C (428 °F) COC for oil-see note 2
Auto Ignition Temperature:	Above 260 °C (500 °F)
Ignition Temperature:	Above 210 °C (410 °F)
Combustible:	Yes, with the presence of an ignition source.
Upper/Lower Flammable Limits:	NE (0.9% by volume in air for oil)
Hazardous Combustion Products:	Carbon monoxide, carbon dioxide, products from incomplete combustion, sulfur dioxides, nitrogen oxides, acrid fumes and toxic gases.
Extinguishing Media:	Most fire extinguishing media permitted - water recommended; carbon dioxide not recommended.
Special Fire Fighting Procedure:	Treat as hydrocarbon fire. Wear NIOSH approved self contained breathing apparatus with full face shield. Personnel not having suitable respiratory protection should leave the area to prevent exposure to toxic combustion gases.
Upper/Lower Explosive Level:	NA
Sensitivity to Impact/Shock:	NA
Sensitivity to Static Discharge:	NA

MARKETED BY  
**HARWICK STANDARD  
DISTRIBUTION CORPORATION**  
60 S. Seiberling Street - Akron, Ohio 44305  
Akron - Chicago - Northeast - Southern - West Coast

60 S.

.05

NFPA FIRE  
HAZARDS  
IDENTIFICATION  
SYSTEM



4 - Extreme  
3 - High  
2 - Moderate  
1 - Slight  
0 - Insignificant

(Continued on reverse.)



#### 4. PHYSICAL DATA

Physical State: Solid, bales  
Appearance: Black, with grey bale coating  
Odor: None  
Odor Threshold: NE  
Melting/Freezing Points: NA  
Specific Gravity: 1.10-1.15  
Boiling Point: NA  
Vapor Pressure: NA  
Vapor Density: NA  
Volatiles (% by weight, @ 100 °C): 0.75 max.  
Solubility in Water at 20°C: Insoluble  
Coefficient of Water/Oil Distribution: NE  
pH: NA  
Evaporation rate: NA

#### 5. SPECIAL REGULATORY HAZARD-HEALTH, SAFETY, AND FOOD

OSHA: The Petroleum Oil component in this product, if present as an oil mist, is regulated under 29 CFR 1910.1000 (see Section 6 and Note 4). Carbon Black is considered a nuisance dust hazard by 29 CFR 1910.1000 Subpart Z-1 (see Note 3).

TSCA: Components of this product are listed under TSCA Chemical Substance Inventory.

FDA: All grades can be used in complying with 21 CFR 177.2600, 'Rubber Articles Intended for Repeated Use.'

DOT: **United States:** Designation and labeling not applicable as product is not defined or designated as a hazardous material by U.S. Department of Transportation under Title 49 of CFR.  
**Canada:** This product is not regulated under the Canadian Transportation of Dangerous Goods Regulations.

SARA Title III: **Section 302/304:** Extremely Hazardous Substances - None.  
**Section 311:** Hazardous Substances - Not Applicable.  
**Section 313:** This product is not subject to reporting requirements (See 40 CFR372).

WHMIS: This product is considered a Controlled Product under Canada's Workplace Hazardous Material Information System because it contains 1.0-2.0 weight percent Oleic acid, CAS No. 112-80-1 (a component in the Disproportionated Tall Oil) and Carbon Black.

	LD50	LC50	Hazard
Oleic acid	74gm/kg (rat, oral)	Unknown	Skin irritant
Carbon Black	Unknown	Unknown	nuisance dust

CEPA: Components of this product are included in Canada's DSL.  
EEC: This product is considered non-hazardous by the European Economic Community.

#### 6. TOXICOLOGICAL AND HEALTH DATA

Specific Hazards: No acute hazards or effects are known.

Medical Conditions

Aggravated by Exposure: Some individuals with specific sensitivities may exhibit eye, nose, throat, or thermal irritation with prolonged exposure to processing fumes or vapors. Individuals with pre-existing skin disorders should avoid contact with this material.

Routes of Exposure: **Eye Contact:** Not a probable source of exposure. Particulates may scratch eye surface or cause irritation.

**Skin Contact:** A single prolonged exposure is not likely to result in material being absorbed through the skin in a harmful amount. Repeated prolonged exposures may cause moderate skin irritation. Exposure to hot material may cause thermal burns.  
**Ingestion:** Not a probable route of exposure.  
**Inhalation:** Not a probable source of exposure under conditions of normal use. Hot fumes or vapors which may form during processing can cause irritation to the respiratory tract.

Toxicology Information: LD50 = NE; LC50 = NA  
**Reproductive Effects:** None reported  
**Teratogenicity:** None reported  
**Mutagenicity:** None reported  
**Carcinogenicity:** None reported  
**Others:** Skin Irritant: Oleic acid - 15mg/3D-I (humans) Moderate

---

**7. PROTECTIVE AND PREVENTIVE MEASURES**

Personal Protective Equipment:

**Eye:** Wear safety glasses or chemical type goggles.**Skin:** Wear clothing appropriate to prevent skin contact. Use gloves resistant to chemicals and petroleum distillates. Where contact may occur with hot material, wear thermal resistant gloves, arm protection, and a face shield. Launder or dry clean clothing when soiled.**Respiratory:** Not normally required at ambient temperatures. If processing in area where ventilation is inadequate, wear a NIOSH approved organic vapor respirator with mechanical filtration. If processing conditions generate dust above PEL, wear NIOSH approved respirator for nuisance dust.

Handling Procedures and Equipment:

Avoid skin and eye contact, practice good personal hygiene. Avoid inhalation of fumes or vapors from hot rubbers, compounds and vulcanizates. Avoid generation of and prolonged breathing of dust.

Engineering Controls:

Local exhaust ventilation is recommended during all hot processing operations.

Exposure Guidelines:

	PEL (OSHA)	TLV (ACGIH)
Petroleum Oil as Oil Mist (see Note 4)	5 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>
Carbon Black (respirable dust)	3.5 mg/m <sup>3</sup>	3.5 mg/m <sup>3</sup>

---

**8. EMERGENCY AND FIRST AID PROCEDURES**

Eye Contact:

Remove as for any foreign object. Flush with clean water for 15 minutes. Obtain medical attention if irritation persists.

Skin Contact:

Wash with soap and water. Remove contaminated clothing. If thermal irritation, flush affected area with cold water to dissipate heat, then cover with clean cotton sheeting or gauze and get prompt medical attention.

Inhalation:

If dust, fumes or vapors are inhaled, move to fresh air, aid breathing if necessary. Obtain medical attention if irritation persists.

Ingestion:

Unlikely to occur.

---

**9. CHEMICAL REACTIVITY**

Chemical Stability:

Product is stable at ambient temperature and pressure.

Conditions to Avoid:

Ignition source; product is combustible.

Incompatibility with Other Materials:

None known.

Hazardous Decomposition Products:

Combustion products will be carbon monoxide, carbon dioxide, sulfur dioxides, nitrogen oxides and products from incomplete combustion.

Hazardous Polymerization:

Will not occur.

---

**10. SPILLS, DISPOSAL, STORAGE GUIDELINES**

Spill and Release Information:

Repackage uncontaminated rubber. Reuse or dispose of as noted below if contaminated.

Disposal Information:

Reuse if possible. Dispose in accordance with local, state and federal regulations and applicable environmental regulations. Material as supplied is not characterized as hazardous under RCRA.

Storage:

Store at ambient temperature, keep away from excessive heat and flame and store in absence of direct, natural, or artificial light.

---

**11. LABELS**

OSHA:

Not Required

WHMIS:

Required

---

**12. ADDITIONAL INFORMATION**

Note 1:

The particular Petroleum Oil used in this product has been formulated from base stocks which are severely hydrotreated, severely solvent extracted and/or processed by mild hydrotreatment and extraction. The product contains less than 0.1 weight percent polynuclear aromatic compounds and therefore is not considered as carcinogenic under Hazard Communication Standard Title 29 CFR 1910.1200.

Note 2:

This data represents the lowest possible limit and is for the Petroleum Oil ingredient in this product. The Petroleum Oil is soluble in the SBR component and data on the blend has not been established.

Note 3:

Carbon Black, when incorporated into the rubber in the form delivered, is no longer believed to be a nuisance dust hazard by DSM Copolymer.

Note 4:

Specific exposure standards for this product and its components have not been established. The limits shown in Section 7 are suggested as minimum control guidelines. These exposure limits apply only if aerosols are emitted from these products.

## DSM Elastomers

### Abbreviations:

ACGIH:	American Conference of Governmental Industrial Hygienists
CAS:	Chemical Abstract Service
CEPA:	Canadian Environmental Protection Act
CFR:	Code of Federal Regulations
DOT:	Department of Transportation
DSL:	Domestic Substance List
EEC:	European Economic Community
EPA:	Environmental Protection Agency
FDA:	Food and Drug Administration (U.S.)
IARC:	International Agency for Research on Cancer
LC50:	The concentration in air that causes death in 50% of the animals exposed
LD50:	The dose that causes death in 50% of the animals exposed
mg/m <sup>3</sup> :	Milligrams (mg) of substance per cubic meter (m <sup>3</sup> ) of air; method of expressing the concentration of a substance in air
NA:	Not applicable
NE:	Not established
NH:	Not hazardous
NFPA:	National Fire Protection Association
NOISH:	National Institute for Occupational Safety and Health
OSHA:	Occupational Safety and Health Administration
PEL:	Permissible Exposure Limits
RCRA:	Resource and Conservation Recovery Act
SARA:	Superfund Amendments and Reauthorization Act
TLV:	Threshold Limit Value
TSCA:	Toxic Substance Control Act
WHMIS:	Workplace Hazardous Material Information System

### North and South America

DSM Copolymer, Inc.  
P.O. Box 2591  
Baton Rouge, LA, USA 70821-2591

Tel. (504) 355-5655  
Toll free: 800 535-9960  
Fax: (504) 267-3631

Customer Applications Development Center  
Tech-Line: 800-824-0357  
Fax: (504) 267-3630

### Europe

DSM Elastomers Europe B.V.  
The Netherlands (Sittard)  
Tel. +31 (0) 46 77 36 67

### Japan

DSM Idemitsu Co., Ltd.  
Japan (Tokyo)  
Tel. (81) 3-435-7110

### Far East

DSM Elastomers Asia Pacific Pte. Ltd.  
Singapore  
Tel. (65) 299-6080

*Notice: Although the information contained in this MSDS is believed to be correct as of the date hereof, DSM Copolymer makes no representations as to the completeness or accuracy thereof. Those who utilize the product described herein are responsible for determining (a) the suitability of the product for the intended use and (b) the appropriate manner of processing the product to ensure safety and quality. In no event will DSM Copolymer be responsible for damages of any nature resulting from the use of or reliance upon the information contained herein.*

© DSM Copolymer, Inc.  
Printed in the USA  
Edition 09/93