

Eclipse

Safety Data Sheet

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : Eclipse

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : X-ray Attenuation

1.3. Details of the supplier of the safety data sheet

Bar Ray Products Inc.
95 Monarch Street
Littlestown, PA 17340
T 717-359-9100

1.4. Emergency telephone number

No additional information available

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Not classified

2.2. Label elements

GHS-US labelling

No labeling applicable

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

Full text of H-phrases: see section 16

3.2. Mixture

Name	Product identifier	%	GHS-US classification
Antimony	(CAS No) 7440-36-0	70 - 90	Not classified
Plastisol	None	10 - 30	Not classified

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : No specific first aid necessary for this route of exposure.

First-aid measures after skin contact : No specific first aid necessary for this route of exposure.

First-aid measures after eye contact : No specific first aid necessary for this route of exposure.

First-aid measures after ingestion : No specific first aid necessary for this route of exposure.

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

Symptoms/injuries after inhalation : None under normal use.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing media : None.

5.2. Special hazards arising from the substance or mixture

Fire hazard : None known.

Explosion hazard : None known.

5.3. Advice for firefighters

Protection during firefighting

Eclipse

Safety Data Sheet

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

None.

6.3. Methods and material for containment and cleaning up

For containment : No special measures required.
Methods for cleaning up : Recycle product or dispose safely. Dispose of waste in accordance with local, state and federal regulations.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : No special handling required.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : No special storage conditions required.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Antimony (7440-36-0)		
USA ACGIH	ACGIH TWA (mg/m ³)	0.5 mg/m ³
USA OSHA	OSHA PEL (TWA) (mg/m ³)	0.5 mg/m ³

8.2. Exposure controls

Appropriate engineering controls : None required under normal product handling conditions.
Hand protection : None required under normal product handling conditions.
Eye protection : None required under normal product handling conditions.
Skin and body protection : None required under normal product handling conditions.
Respiratory protection : None required under normal product handling conditions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid
Appearance : Flexible material
Color : Brownish or grey
Odor : Vinyl
Odor threshold : No data available
pH : No data available
Relative evaporation rate (butylacetate=1) : No data available
Melting point : No data available
Freezing point : No data available
Boiling point : No data available
Flash point : No data available
Self ignition temperature : No data available
Decomposition temperature : No data available

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Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Vapour pressure	No data available
Log Pow	No data available
Log Kow	No data available
Viscosity, kinematic	No data available
Explosive properties	No data available
Oxidising properties	No data available
Explosive limits	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

Will not occur.

10.4. Conditions to avoid

None.

10.5. Incompatible materials

None.

10.6. Hazardous decomposition products

Carbon monoxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Antimony (7440-36-0)

ATE (oral)	7000 mg/kg
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Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Symptoms/injuries after inhalation	Not classified

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Safety Data Sheet

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14: Transport information

In accordance with DOT

14.1. UN number

No dangerous good in sense of transport regulations

14.2. UN proper shipping name

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Antimony (7440-36-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on SARA Section 313 (Specific toxic chemical listings)

SARA Section 313 – Emission Reporting	1.0 %
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15.2. US State regulations

Antimony (7440-36-0)

U.S. - Massachusetts - Right To Know List
U.S. - Minnesota - Hazardous Substance List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

Prestige

Safety Data Sheet

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : Prestige

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : X-ray Attenuation

1.3. Details of the supplier of the safety data sheet

Bar Ray Products Inc.
95 Monarch Street
Littlestown, PA 17340
T 717-359-9100

1.4. Emergency telephone number

No additional information available

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Not classified

2.2. Label elements

GHS-US labelling

No labeling applicable

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

Full text of H-phrases: see section 16

3.2. Mixture

Name	Product identifier	%	GHS-US classification
Antimony	(CAS No) 7440-36-0	60 - 85	Not classified
Plastisol	None	10 - 25	Not classified

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : No specific first aid necessary for this route of exposure.

First-aid measures after skin contact : No specific first aid necessary for this route of exposure.

First-aid measures after eye contact : No specific first aid necessary for this route of exposure.

First-aid measures after ingestion : No specific first aid necessary for this route of exposure.

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

Symptoms/injuries after inhalation : None under normal use.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing media : None.

5.2. Special hazards arising from the substance or mixture

Fire hazard : None known.

Explosion hazard : None known.

Prestige

Safety Data Sheet

5.3. Advice for firefighters

Protection during firefighting : Firefighters should wear full protective gear.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

None.

6.3. Methods and material for containment and cleaning up

For containment : No special measures required.

Methods for cleaning up : Recycle product or dispose safely. Dispose of waste in accordance with local, state and federal regulations.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : No special handling required.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : No special storage conditions required.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Antimony (7440-36-0)		
USA ACGIH	ACGIH TWA (mg/m ³)	0.5 mg/m ³
USA OSHA	OSHA PEL (TWA) (mg/m ³)	0.5 mg/m ³

8.2. Exposure controls

Appropriate engineering controls : None required under normal product handling conditions.

Hand protection : None required under normal product handling conditions.

Eye protection : None required under normal product handling conditions.

Skin and body protection : None required under normal product handling conditions.

Respiratory protection : None required under normal product handling conditions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid
Appearance : Flexible material
Color : Brownish or grey
Odor : Vinyl
Odor threshold : No data available
pH : No data available
Relative evaporation rate (butyl acetate=1) : No data available
Melting point : No data available
Freezing point : No data available
Boiling point : No data available
Flash point : No data available
Self ignition temperature : No data available
Decomposition temperature : No data available
Flammability (solid, gas) : No data available
Vapor pressure : No data available

Prestige

Safety Data Sheet

Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Solubility	: Water: Insoluble
Log Pow	: No data available
Log Know	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

Will not occur.

10.4. Conditions to avoid

None.

10.5. Incompatible materials

None.

10.6. Hazardous decomposition products

Carbon monoxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Antimony (7440-36-0)	
ATE (oral)	7000000.000 mg/kg

Bismuth (7440-69-9)	
ATE (oral)	5000000.000 mg/kg

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

Symptoms/injuries after inhalation : None under normal use.

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

No additional information available

12.3. Bio accumulative potential

No additional information available

Prestige

Safety Data Sheet

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14: Transport information

In accordance with DOT

14.1. UN number

No dangerous good in sense of transport regulations

14.2. UN proper shipping name

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Antimony (7440-36-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Listed on SARA Section 313 (Specific toxic chemical listings)

SARA Section 313 - Emission Reporting	1.0 %
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Bismuth (7440-69-9)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. US State regulations

Antimony (7440-36-0)

U.S. - Massachusetts - Right to Know List

U.S. - Minnesota - Hazardous Substance List

U.S. - New Jersey - Right to Know Hazardous Substance List

U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

Scatter Sentry

Safety Data Sheet

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : Scatter Sentry

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : X-ray attenuation

1.3. Details of the supplier of the safety data sheet

Bar Ray Products Inc.
95 Monarch Street
Littlestown, PA 17340
T 717-359-9100

1.4. Emergency telephone number

No additional information available

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Not classified

2.2. Label elements

GHS-US labelling

No labeling applicable

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

Full text of H-phrases: see section 16

3.2. Mixture

Name	Product identifier	%	GHS-US classification
Antimony	(CAS No) 7440-36-0	60 - 70	Not classified
Plastisol	None	10 - 25	Not classified
Bismuth	(CAS No) 7440-69-9	5 - 15	Not classified

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : No specific first aid necessary for this route of exposure.
First-aid measures after skin contact : No specific first aid necessary for this route of exposure.
First-aid measures after eye contact : No specific first aid necessary for this route of exposure.
First-aid measures after ingestion : No specific first aid necessary for this route of exposure.

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

Symptoms/injuries after inhalation : None under normal use.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media : None.

5.2. Special hazards arising from the substance or mixture

Fire hazard : None known.
Explosion hazard : None known.

Scatter Sentry

Safety Data Sheet

5.3. Advice for firefighters

Protection during firefighting : Firefighters should wear full protective gear.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

None.

6.3. Methods and material for containment and cleaning up

For containment : No special measures required.

Methods for cleaning up : Recycle product or dispose safely. Dispose of waste in accordance with local, state and federal regulations.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : No special handling required.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : No special storage conditions required.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Antimony (7440-36-0)		
USA ACGIH	ACGIH TWA (mg/m ³)	0.5 mg/m ³
USA OSHA	OSHA PEL (TWA) (mg/m ³)	0.5 mg/m ³

8.2. Exposure controls

Appropriate engineering controls : None required under normal product handling conditions.

Hand protection : None required under normal product handling conditions.

Eye protection : None required under normal product handling conditions.

Skin and body protection : None required under normal product handling conditions.

Respiratory protection : None required under normal product handling conditions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid

Appearance : Flexible material

Color : Brownish or grey

Odor : Vinyl

Odor threshold : No data available

pH : No data available

Relative evaporation rate (butyl acetate=1) : No data available

Melting point : No data available

Freezing point : No data available

Boiling point : No data available

Flash point : No data available

Self ignition temperature : No data available

Decomposition temperature : No data available

Flammability (solid, gas) : No data available

Vapor pressure : No data available

Scatter Sentry

Safety Data Sheet

Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Solubility	: Water: Insoluble
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

Will not occur.

10.4. Conditions to avoid

None.

10.5. Incompatible materials

None.

10.6. Hazardous decomposition products

Carbon monoxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Antimony (7440-36-0)	
ATE (oral)	7000000.000 mg/kg

Bismuth (7440-69-9)	
ATE (oral)	5000000.000 mg/kg

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

Symptoms/injuries after inhalation : None under normal use.

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

No additional information available

12.3. Bio accumulative potential

No additional information available

Scatter Sentry

Safety Data Sheet

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14: Transport information

In accordance with DOT

14.1. UN number

No dangerous good in sense of transport regulations

14.2. UN proper shipping name

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Antimony (7440-36-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on SARA Section 313 (Specific toxic chemical listings)

SARA Section 313 - Emission Reporting	1.0 %
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Bismuth (7440-69-9)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. US State regulations

Antimony (7440-36-0)

U.S. - Massachusetts - Right to Know List
U.S. - Minnesota - Hazardous Substance List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

Starlite - Safety Data Sheet

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name. : Starlite

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : X-ray Attenuation

1.3. Details of the supplier of the safety data sheet

Bar Ray Products Inc.
95 Monarch Street
Littlestown, PA 17340

1.4. Emergency telephone number

717-359-9100

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Not classified

2.2. Label elements

GHS-US labelling

No labelling applicable

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

Full text of H-phrases: see section 16

3.2. Mixture

Name	Product identifier	%	GHS-US classification
Antimony	(CAS No) 7440-36-0	65 - 90	Not classified
Plastisol	(CAS No) Trade Secret	10 - 35	Not classified

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : No specific first aid necessary for this route of exposure.
First-aid measures after skin contact : No specific first aid necessary for this route of exposure.
First-aid measures after eye contact : No specific first aid necessary for this route of exposure.
First-aid measures after ingestion : No specific first aid necessary for this route of exposure.

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

Symptoms/injuries after inhalation : None under normal use.
Symptoms/injuries after skin contact : None under normal use.
Symptoms/injuries after eye contact : None under normal use.
Symptoms/injuries after ingestion : None under normal use.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media : None.

5.2. Special hazards arising from the substance or mixture

Fire hazard : None known.
Explosion hazard : None known.

Starlite - Safety Data Sheet

5.3. Advice for firefighters

Protection during firefighting : Firefighters should wear full protective gear.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

None.

6.3. Methods and material for containment and cleaning up

For containment : No special measures required.

Methods for cleaning up : Recycle product or dispose properly. Dispose of waste in accordance with local, state and federal regulations.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : No special handling required.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : No special storage conditions required.

7.3. Specific end use(s)

X-ray attenuation

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Antimony (7440-36-0)		
USA ACGIH	ACGIH TWA (mg/m ³)	0.5 mg/m ³
USA OSHA	OSHA PEL (TWA) (mg/m ³)	0.5 mg/m ³

8.2. Exposure controls

Appropriate engineering controls : None required under normal product handling conditions.

Hand protection : None required under normal product handling conditions.

Eye protection : None required under normal product handling conditions.

Skin and body protection : None required under normal product handling conditions.

Respiratory protection : None required under normal product handling conditions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid

Appearance : Flexible material

Color : Brown or grey

Odor : Vinyl

Odor threshold : No data available

pH : No data available

Relative evaporation rate (butyl acetate=1) : No data available

Melting point : No data available

Freezing point : No data available

Boiling point : No data available

Flash point : No data available

Self ignition temperature : No data available

Decomposition temperature : No data available

Flammability (solid, gas) : No data available

Vapor pressure : No data available

Starlite - Safety Data Sheet

Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Solubility	: Water: Insoluble
Log Pow	: No data available
Log Know	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

The product is stable at normal handling- and storage conditions.

10.3. Possibility of hazardous reactions

Will not occur.

10.4. Conditions to avoid

None.

10.5. Incompatible materials

None.

10.6. Hazardous decomposition products

When burned or subjected to temperatures in excess of 300oF for excessive time, hydrogen chloride is emitted.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

PVC Plasticizer (Trade Secret)	
LD50 oral rat	> 9750 mg/kg
LC50 inhalation rat (mg/l)	> 4.4 mg/l/4h

Antimony (7440-36-0)	
ATE (oral)	7000000.000 mg/kg

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12.1. Toxicity

PVC Plasticizer (Trade Secret)	
LC50 fishes 1	> 0.14 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through])
EC50 Daphnia 1	> 500 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 other aquatic organisms 1	> 500 mg/l (Exposure time: 72 h - Species: Desmodesmus subspicatus)
LC50 fish 2	> 0.19 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 2	> 0.06 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])

Starlite - Safety Data Sheet

PVC Plasticizer (Trade Secret)

EC50 other aquatic organisms 2	> 1.8 mg/l (Exposure time: 96 h - Species: Pseudokirchneriella subcapitata [static])
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12.2. Persistence and degradability

No additional information available

12.3. Bio accumulative potential

PVC Plasticizer (Trade Secret)

BCF fish 1	183.8
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12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14: Transport information

In accordance with DOT / ADR / RID / ADNR / IMDG / ICAO / IATA

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

PVC Plasticizer (Trade Secret)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Antimony (7440-36-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on SARA Section 313 (Specific toxic chemical listings)

SARA Section 313 - Emission Reporting	1.0 %
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15.2. US State regulations

PVC Plasticizer (Trade Secret)

U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

Antimony (7440-36-0)

U.S. - Massachusetts - Right to Know List
U.S. - Minnesota - Hazardous Substance List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

Truelite – Safety Data Sheet

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : Truelite

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : X-ray attenuation

1.3. Details of the supplier of the safety data sheet

Bar Ray Products Inc.
95 Monarch Street
Littlestown, PA 17340
T 717-359-9100

1.4. Emergency telephone number

No additional information available

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Carc. 1B H350
Aquatic Acute 1 H400

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



GHS08

GHS09

Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H350 - May cause cancer
H400 - Very toxic to aquatic life

Precautionary statements (GHS-US) :

P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P273 - Avoid release to the environment
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P308+P313 - IF exposed or concerned: Get medical advice/attention
P391 - Collect spillage
P405 - Store locked up
P501 - Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

Full text of H-phrases: see section 16

3.2. Mixture

Name	Product identifier	%	GHS-US classification
Lead	(CAS No) 7439-92-1	50 - 70	Carc. 1B, H350
Antimony	(CAS No) 7440-36-0	20 - 40	Not classified
Plastisol	(CAS No) Trade Secret	10 - 20	Not classified

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : No specific first aid necessary for this route of exposure.

First-aid measures after skin contact : No specific first aid necessary for this route of exposure.

Truelite –

Safety Data Sheet

First-aid measures after eye contact : No specific first aid necessary for this route of exposure.
First-aid measures after ingestion : No specific first aid necessary for this route of exposure.

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

Symptoms/injuries after inhalation : None under normal use.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media : None.

5.2. Special hazards arising from the substance or mixture

Fire hazard : None known.
Explosion hazard : None known.

5.3. Advice for firefighters

Protection during firefighting : Firefighters should wear full protective gear.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : No special measures required.
Methods for cleaning up : Recycle product or dispose safely. Dispose of waste in accordance with local, state and federal regulations.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : No special handling required.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : No special storage conditions required.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Lead (7439-92-1)		
USA ACGIH	ACGIH TWA (mg/m ³)	0.05 mg/m ³
USA OSHA	OSHA PEL (TWA) (mg/m ³)	50 µg/m ³
Antimony (7440-36-0)		
USA ACGIH	ACGIH TWA (mg/m ³)	0.5 mg/m ³
USA OSHA	OSHA PEL (TWA) (mg/m ³)	0.5 mg/m ³

8.2. Exposure controls

Appropriate engineering controls : None required under normal product handling conditions.
Hand protection : None required under normal product handling conditions.
Eye protection : None required under normal product handling conditions.
Skin and body protection : None required under normal product handling conditions.
Respiratory protection : None required under normal product handling conditions.

Truelite - Safety Data Sheet

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Flexible material
Color	: Brown/Grey
Odor	: vinyl
Odor threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Solubility	: Water: Insoluble
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

Will not occur.

10.4. Conditions to avoid

None.

10.5. Incompatible materials

None.

10.6. Hazardous decomposition products

Carbon monoxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Antimony (7440-36-0)	
ATE (oral)	7000000.000 mg/kg

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: May cause cancer.

Truelite - Safety Data Sheet

Lead (7439-92-1)	
IARC group	2A
National Toxicity Program (NTP) Status	3

Reproductive toxicity : Not classified
 Specific target organ toxicity (single exposure) : Not classified
 Specific target organ toxicity (repeated exposure) : Not classified
 Aspiration hazard : Not classified
 Symptoms/injuries after inhalation : None under normal use.

SECTION 12: Ecological information

12.1. Toxicity

Lead (7439-92-1)	
LC50 fishes 1	0.44 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [semi-static])
EC50 Daphnia 1	600 µg/l (Exposure time: 48 h - Species: water flea)
LC50 fish 2	1.17 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])

12.2. Persistence and degradability

No additional information available

12.3. Bio accumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14: Transport information

In accordance with DOT

14.1. UN number

No dangerous good in sense of transport regulations

14.2. UN proper shipping name

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Lead (7439-92-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on SARA Section 313 (Specific toxic chemical listings)	
SARA Section 313 - Emission Reporting	0.1 %

Antimony (7440-36-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on SARA Section 313 (Specific toxic chemical listings)	
SARA Section 313 - Emission Reporting	1.0 %

15.2. US State regulations

Lead (7439-92-1)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
Yes	Yes	Yes	Yes	

Truelite - Safety Data Sheet

Lead (7439-92-1)

U.S. - Massachusetts - Right to Know List
U.S. - Minnesota - Hazardous Substance List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

Antimony (7440-36-0)

U.S. - Massachusetts - Right to Know List
U.S. - Minnesota - Hazardous Substance List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Full text of H-phrases:

Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Carc. 1B	Carcinogenicity, Category 1B
H350	May cause cancer
H400	Very toxic to aquatic life

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

Cost Cruncher

Safety Data Sheet

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name. : Cost Cruncher

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : X-ray Attenuation

1.3. Details of the supplier of the safety data sheet

Bar Ray Products Inc.
95 Monarch Street
Littlestown, PA 17340

1.4. Emergency telephone number

717-359-9100

SECTION 2 : Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Carc. 1B H350
Aquatic Acute 1 H400

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



GHS08

GHS09

Hazard statements (GHS-US) :

: H350 - May cause cancer
H400 - Very toxic to aquatic life

Precautionary statements (GHS-US) :

: P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P273 - Avoid release to the environment
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P308+P313 - IF exposed or concerned: Get medical advice/attention
P391 - Collect spillage
P405 - Store locked up
P501 - Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3 : Composition/information on ingredients

3.1. Substances

Not applicable

Full text of H-phrases: see section 16

3.2. Mixture

Name	Product identifier	%	GHS-US classification
Lead	(CAS No) 7439-92-1	70 - 90	Carc. 1B, H350
Plastisol	Not Available	10-30	Not Classified

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : No specific first aid necessary for this route of exposure.
First-aid measures after skin contact : No specific first aid necessary for this route of exposure.
First-aid measures after eye contact : No specific first aid necessary for this route of exposure.
First-aid measures after ingestion : No specific first aid necessary for this route of exposure.

Cost Cruncher

Safety Data Sheet

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

No additional information available

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing media : None.

5.2. Special hazards arising from the substance or mixture

When burned or subjected to temperatures in excess of 300°F for excessive time, hydrogen chloride is emitted. Avoid breathing combustion products or use self-contained breathing apparatus.

5.3. Advice for firefighters

Protection during firefighting : Firefighters should wear full protective gear.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

None.

6.3. Methods and material for containment and cleaning up

For containment : No special measures required.

Methods for cleaning up : Dispose of waste in accordance with local, state and federal regulations.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : No special handling required.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : No special storage conditions required.

7.3. Specific end use(s)

X-ray garment production

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Lead (7439-92-1)		
USA ACGIH	ACGIH TWA (mg/m ³)	0.05 mg/m ³
USA OSHA	OSHA PEL (TWA) (mg/m ³)	50 µg/m ³

8.2. Exposure controls

Appropriate engineering controls : None required under normal product handling conditions.

Hand protection : None required under normal product handling conditions.

Eye protection : None required under normal product handling conditions.

Skin and body protection : None required under normal product handling conditions.

Respiratory protection : None required under normal product handling conditions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid

Appearance : Flexible material

Color : Brownish or grey

Odor : Vinyl

Cost Cruncher

Safety Data Sheet

Odor threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Solubility	: Water: Insoluble
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

No additional information available

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

None.

10.5. Incompatible materials

None.

10.6. Hazardous decomposition products

Not Determined.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Not classified
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: May cause cancer.

Lead (7439-92-1)	
IARC group	2A
National Toxicity Program (NTP) Status	3

Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified

Specific target organ toxicity (repeated exposure)	: Not classified
----------------------------------------------------	------------------

Cost Cruncher

Safety Data Sheet

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Lead (7439-92-1)	
LC50 fishes 1	0.44 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [semi-static])
EC50 Daphnia 1	600 µg/l (Exposure time: 48 h - Species: water flea)
LC50 fish 2	1.17 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])

12.2. Persistence and degradability

No additional information available

12.3. Bio accumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14: Transport information

In accordance with DOT

14.1. UN number

Not a dangerous good in sense of transport regulations

14.2. UN proper shipping name

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Lead (7439-92-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on SARA Section 313 (Specific toxic chemical listings)	
SARA Section 313 - Emission Reporting	0.1 %

15.2. US State regulations

Lead (7439-92-1)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
Yes	Yes	Yes	Yes	

SECTION 16: Other information

Full text of H-phrases:

Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Carc. 1B	Carcinogenicity Category 1B
H350	May cause cancer
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