

Material Safety Data Sheet CEL IR-78 Black

First issue: September 24, 2009

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: R14772-Black
MSDS Number: MS-31-0123-01
Company Name: Clover Technologies Group
Address: 4200 Columbus Street
 Ottawa, IL 61350
Emergency Telephone Number: Clover Technologies Group 1-815-431-8100

2. Hazard Information

GHS Classification

Physical Hazard :

Explosives;	Classification not possible
Flammable gases;	Not gases
Flammable aerosols;	Not aerosols
Oxidizing gases;	Not gases
Gases under pressure;	Not gases
Flammable liquids;	Not classified
Flammable solids;	Not solids
Self-reactive substances and mixtures;	Classification not possible
Pyrophoric liquids;	Classification not possible
Pyrophoric solids;	Not solids
Self-heating substances and mixtures;	Classification not possible
Substances and mixtures which, in contact with water, emit flammable gases;	Classification not possible
Oxidizing liquids;	Classification not possible
Oxidizing solids;	Not solids
Organic peroxides;	Classification not possible
Corrosive to metals;	Classification not possible

Health Hazard :

Acute toxicity (Oral);	Classification not possible
Acute toxicity (Dermal);	Classification not possible
Acute toxicity (Gases);	Not gases
Acute toxicity (Vapours);	Classification not possible
Acute toxicity (Dusts and Mists);	Classification not possible
Skin corrosion /irritation;	Category 3
Eye damage / irritation;	Category 2
Sensitization - Respiratory;	Classification not possible
Sensitization - Skin;	Classification not possible
Germ cell mutagenicity;	Classification not possible
Carcinogenicity;	Category 2
Toxic to reproduction;	Classification not possible
Specific target organ systemic toxicity (Single exposure);	Classification not possible
Specific target organ systemic toxicity (Repeated exposure);	Category 1
Aspiration toxicity;	Classification not possible

Environmental Hazard:

Hazardous to the aquatic environment -

Acute hazard;

Classification not possible

Hazardous to the aquatic environment -

Chronic hazard;

Classification not possible

Label elements

Pictogram;



Signal word; Danger

Hazard statement; Causes mild skin irritation
 Causes serious eye irritation
 Suspected of causing cancer

Prevention;

Causes damage to organs < Lung > through prolonged or repeated exposure
 Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Use personal protective equipment as required.
 Do not eat, drink or smoke when using this product.
 Wash hands thoroughly after handling.
 Do not breathe dust.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance: Mixture

Ingredient:

Components	CAS#	Content %
Carbon black	1333-86-4	1-10
Mineral oil	Secret	10-20
Pigment	Secret	1-5
Dyes	Secret	5-10
Oil	Secret	50-60
Resins	Secret	10-20

4. FIRST AID MEASURES

Inhalation: Move the victims to the clean air space and rest in a comfortable position for breathing. When it feels sick, take doctor's treatment.

Skin: Wash away with soap and water immediately. When skin swells and pain continue, take doctor's treatment.

Eye: Rinse cautiously with clean water for several minutes. Immediately take doctor's treatment.

Swallowed: Do not compel to vomit. Wash the mouth with water. Immediately take doctor's treatment.

5. FIRE FIGHTING MESURE

Extinguishing media: Use water spray, dry chemical, carbon dioxide, or chemical foam.

Prohibited extinguishing media: Don't use stick-shaped water.

Special extinguishing method:

1. Cut the origin of the fire.
2. Wear the protection clothes and extinguish the fire from the windward.
3. Transfer to the safe place the movable containers immediately.

4. Cool down the surrounding equipment by water.
5. Specify the place off limits around the fire.

Protection : Attach a suitable protection.

6. ACCIDENTAL RELEASE MEASURES

Personal precaution:

1. Put a rope around the location of leaks. And specify to off-limit area.
2. Case indoor, get adequate ventilation.
3. Surely attach the protective equipment at work.
4. Keep a fire extinguisher to prepare.

Environmental precaution: Prevent entry into waterway, sewers, basements or confined areas.

Methods for containment:

In the case of a large quantity:

1. Stop the leaked liquid by sands and earth.
2. Lead this liquid to a safety place.
3. Collect them into the empty container, and seal the container tightly.

In the case of a little quantity:

1. Make a rags cloth or paper absorb the leaked liquid.
2. Collect them into the empty container, and seal the container tightly.
3. Wipe the leaked liquid perfectly, and wash away this place with a large quantity of water.

7. HANDLING AND STORES

Handling: Will not require special attention.

Storage: Store in cool and dark place.

8. EXPOSUR CONTROLS / PERSONAL PROTECTION

Exposure limit values :

Hazard component	Exposure limit values	
	OSHA-PEL	ACGIH-TLV
Carbon black	TWA : 3.5mg/m ³	TWA : 3.5mg/m ³
Mineral oil	TWA : 5 mg/m ³ (as mist)	TWA : 5 mg/m ³ (as mist)

Equipment countermeasure:

Under the usual handling condition, you will not be exposed to carbon black. Therefore, special ventilation is not necessary.

Personal protection:

If necessary, use protective gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Liquid

Color: Black

Odor: Peculiar odor

pH: Not available

Melting point : Not available

Boiling point: Not available

Flash point: Over 160°C

Upper/lower flammability or explosive limits : Not available

Vapour pressure : Not available

Vapour density : Not available

Specific gravity: Not available

Solubility in water : Hardly dissolves in the water.

10. STABILITY AND REACTIVITY

Stability: This product is stable under the usual handling condition.

Hazard reaction: This product reacts strong oxidizing agent.

Conditions to avoid: Heating, High temperature

Materials to avoid: Strong oxidizer

Hazardous Decomposition Products: When the product burned, carbon oxide and carbon dioxide are generated.

11. TOXICOLOGY INFORMATION

Acute toxicity (Oral);

From the following result, this product is classified as "Classification not possible".

Components	Category	Content %
Carbon black	Not classified	1-10
Other components	Classification not possible	Remainder

Acute toxicity (Dermal);

From the following result, this product is classified as "Classification not possible".

Components	Category	Content %
All components	Classification not possible	100

Acute toxicity (Gases);

This product is not gases. Therefore, this is excluded from GHS classification.

Acute toxicity (Vapours);

From the following result, this product is classified as "Classification not possible".

Components	Category	Content %
All components	Classification not possible	100

Acute toxicity (Dusts and Mists);

From the following result, this product is classified as "Classification not possible".

Components	Category	Content %
All components	Classification not possible	100

Skin corrosion /irritation;

This product contains over 10% the components of "Category 3". Therefore, this is classified as "Category 3".

Causes mild skin irritation

Components	Category	Content %
Mineral oil	Category 3	10-20
Other components	Classification not possible	Remainder

Eye damage / irritation;

This product contains over 10% the components of "Category 2B". Therefore, this is classified as "Category 2".

Causes serious eye irritation

Components	Category	Content %
Mineral oil	Category 2B	10-20
Other components	Classification not possible	Remainder

Sensitization - Respiratory;

From the following result, this product is classified as “Classification not possible”.

Components	Category	Content %
All components	Classification not possible	100

Sensitization - Skin;

From the following result, this product is classified as “Classification not possible”.

Components	Category	Content %
All components	Classification not possible	100

Gem cell mutagenicity;

From the following result, this product is classified as “Classification not possible”.

Components	Category	Content %
All components	Classification not possible	100

Carcinogenicity;

This product contains over 10% the components of “Category 2”. Therefore, this is classified as “Category 2”.

Suspected of causing cancer

Note: Carbon black is listed on group 2B of IARC, but it is not listed as a carcinogen by NTP, ACGIH, OSHA, EPA or the European Union. Under the usual handling condition, you will not be exposed to carbon black.

Components	Category	Content %
Carbon black	Category 2	1-10
Mineral oil	Not classified	10-20
Other components	Classification not possible	Remainder

Toxic to reproduction;

From the following result, this product is classified as “Classification not possible”.

Components	Category	Content %
All components	Classification not possible	100

Specific target organ systemic toxicity (Single exposure);

From the following result, this product is classified as “Classification not possible”.

Components	Category	Content %
All components	Classification not possible	100

Specific target organ systemic toxicity (Repeated exposure);

This product contains over 1% the components of “Category 1”. Therefore, this is classified as “Category 1”.

Causes damage to organs through prolonged or repeated exposure (Lung)

Note : Under the usual handling condition, you will not be exposed to carbon black.

Components	Category	Content %
Carbon black	Category 1 (Lung)	1-10
Mineral oil	Category 2 (Skin)	10-20
Other components	Classification not possible	Remainder

Aspiration toxicity;

From the following result, this product is classified as “Classification not possible”.

Components	Category	Content %
All components	Classification not possible	100

12. ECOLOGICAL INFORMATION**Hazardous to the aquatic environment - Acute hazard;**

From the following result, this product is classified as "Classification not possible".

Components	Category	Content %
Carbon black	Not classified	10-20
Other components	Classification not possible	Remainder

Hazardous to the aquatic environment – Chronic hazard;

From the following result, this product is classified as "Classification not possible".

Components	Category	Content %
All components	Classification not possible	100

13. PRECAUTION FOR DISPOSAL

Comply with all federal, state and local regulations. Do not dump this product into sewers, on the ground or into any body of water.

14. Precaution for transportation

UN number: Not applicable

Name and Description: Not applicable

UN classification: Not applicable

Land transportation: According to the Fire Services Act and Industrial Safety and Health Act.

Marine transportation: According to Ship Safety Law and Ports and Harbors Act.

Air transportation: According to Civil Aeronautics Act.

15. Applicable laws

Industrial Safety and Health Act (Article 57-2; notifiable substances): Carbon black, Mineral oil

PRTR: Not Applicable

Poisonous and Deleterious Substances Control Act: Not Applicable

Fire and Disaster Management Act: Not Applicable

Ship Safety Act; Not Applicable

Civil Aeronautics Act; Not Applicable

Ports and Harbors Act; Not Applicable

16. OTHER INFORMATION**Disclaimer**

This MSDS is not for the safety warranty. When you handle this product, refer to this MSDS and take proper measures depending on the actual condition on user own responsibility. The information given in this MSDS is subject to revision without prior notice according to amendment of law or our new knowledge.

Material Safety Data Sheet

CEL IR- 78 Red

First issue: October 06, 2009

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: R14772-Red
MSDS Number: MS-31-0123-02
Company Name: Clover Technologies Group
Address: 4200 Columbus Street
 Ottawa, IL 61350
Emergency Telephone Number: Clover Technologies Group 1-815-431-8100

2. Hazard Information

GHS Classification

Physical Hazard :

Explosives;	Classification not possible
Flammable gases;	Not gases
Flammable aerosols;	Not aerosols
Oxidizing gases;	Not gases
Gases under pressure;	Not gases
Flammable liquids;	Not classified
Flammable solids;	Not solids
Self-reactive substances and mixtures;	Classification not possible
Pyrophoric liquids;	Classification not possible
Pyrophoric solids;	Not solids
Self-heating substances and mixtures;	Classification not possible
Substances and mixtures which, in contact with water, emit flammable gases;	Classification not possible
Oxidizing liquids;	Classification not possible
Oxidizing solids;	Not solids
Organic peroxides;	Classification not possible
Corrosive to metals;	Classification not possible

Health Hazard :

Acute toxicity (Oral);	Classification not possible
Acute toxicity (Dermal);	Classification not possible
Acute toxicity (Gases);	Not gases
Acute toxicity (Vapours);	Classification not possible
Acute toxicity (Dusts and Mists);	Classification not possible
Skin corrosion /irritation;	Classification not possible
Eye damage / irritation;	Classification not possible
Sensitization - Respiratory;	Classification not possible
Sensitization - Skin;	Classification not possible
Germ cell mutagenicity;	Classification not possible
Carcinogenicity;	Classification not possible
Toxic to reproduction;	Classification not possible
Specific target organ systemic toxicity (Single exposure);	Classification not possible
Specific target organ systemic toxicity (Repeated exposure);	Classification not possible
Aspiration toxicity;	Classification not possible

Environmental Hazard:**Hazardous to the aquatic environment -****Acute hazard;**

Classification not possible

Hazardous to the aquatic environment -**Chronic hazard;**

Classification not possible

Label elements**Pictogram;** Not applicable**Signal word;** Not applicable**Hazard statement;** Not applicable**Prevention;** Not applicable**3. COMPOSITION/INFORMATION ON INGREDIENTS****Substance:** Mixture**Ingredient:**

Components	CAS#	Content %
2-methyl-2,4-pentanediol	107-41-5	1-5
Dyes	Secret	10-20
Oils	Secret	65-75
Resins	Secret	10-20

4. FIRST AID MEASURES

Inhalation: Move the victims to the clean air space and rest in a comfortable position for breathing. When it feels sick, take doctor's treatment.

Skin: Wash away with soap and water immediately. When skin swells and pain continue, take doctor's treatment.

Eye: Rinse cautiously with clean water for several minutes. Immediately take doctor's treatment.

Swallowed: Do not compel to vomit. Wash the mouth with water. Immediately take doctor's treatment.

5. FIRE FIGHTING MESURE

Extinguishing media: Use water spray, dry chemical, carbon dioxide, or chemical foam.

Prohibited extinguishing media: Don't use stick-shaped water.

Special extinguishing method:

1. Cut the origin of the fire.
2. Wear the protection clothes and extinguish the fire from the windward.
3. Transfer to the safe place the movable containers immediately.
4. Cool down the surrounding equipment by water.
5. Specify the place off limits around the fire.

Protection : Attach a suitable protection.

6. ACCIDENTAL RELEASE MEASURES

Personal precaution:

1. Put a rope around the location of leaks. And specify to off-limit area.
2. Case indoor, get adequate ventilation.
3. Surely attach the protective equipment at work.
4. Keep a fire extinguisher to prepare.

Environmental precaution: Prevent entry into waterway, sewers, basements or confined areas.

Methods for containment:

In the case of a large quantity:

1. Stop the leaked liquid by sands and earth.
2. Lead this liquid to a safety place.

3. Collect them into the empty container, and seal the container tightly.

In the case of a little quantity:

1. Make a rags cloth or paper absorb the leaked liquid.
2. Collect them into the empty container, and seal the container tightly.
3. Wipe the leaked liquid perfectly, and wash away this place with a large quantity of water.

7. HANDLING AND STORES

Handling: Will not require special attention.

Storage: Store in cool and dark place.

8. EXPOSUR CONTROLS / PERSONAL PROTECTION

Exposure limit values :

Hazard component	Exposure limit values	
	OSHA-PEL	ACGIH-TLV
2-methyl-2,4-pentanediol	Not established	Ceiling ; 25ppm

Equipment countermeasure:

The special ventilation is not necessary.

Personal protection:

If necessary, use protective gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Liquid

Color: Red

Odor: Peculiar odor

pH: Not available

Melting point : Not available

Boiling point: Not available

Flash point: Over 94°C

Upper/lower flammability or explosive limits : Not available

Vapour pressure : Not available

Vapour density : Not available

Specific gravity: Not available

Solubility in water : Hardly dissolves in the water.

10. STABILITY AND REACTIVITY

Stability: This product is stable under the usual handling condition.

Hazard reaction: This product reacts strong oxidizing agent.

Conditions to avoid: Heating, High temperature

Materials to avoid: Strong oxidizer

Hazardous Decomposition Products: When the product burned, carbon oxide and carbon dioxide are generated.

11. TOXICOLOGY INFORMATION

Acute toxicity (Oral);

From the following result, this product is classified as "Classification not possible".

Components	Category	Content %
2-methyl-2,4-pentanediol	Not classified	1-5
Other components	Classification not possible	Remainder

Acute toxicity (Dermal);

From the following result, this product is classified as “Classification not possible”.

Components	Category	Content %
2-methyl-2,4-pentanediol	Not classified	1-5
Other components	Classification not possible	Remainder

Acute toxicity (Gases);

This product is not gases. Therefore, this is excluded from GHS classification.

Acute toxicity (Vapours);

From the following result, this product is classified as “Classification not possible”.

Components	Category	Content %
All components	Classification not possible	100

Acute toxicity (Dusts and Mists);

From the following result, this product is classified as “Classification not possible”.

Components	Category	Content %
All components	Classification not possible	100

Skin corrosion /irritation;

From the following result, this product is classified as “Classification not possible”.

Components	Category	Content %
2-methyl-2,4-pentanediol	Not classified	1-5
Other components	Classification not possible	Remainder

Eye damage / irritation;

This product contains the components of “Category 2A”. But its content is less than 10%, Therefore, this product is classified as “Classification not possible”.

Components	Category	Content %
2-methyl-2,4-pentanediol	Category 2A	1-5
Other components	Classification not possible	Remainder

Sensitization - Respiratory;

From the following result, this product is classified as “Classification not possible”.

Components	Category	Content %
All components	Classification not possible	100

Sensitization - Skin;

From the following result, this product is classified as “Classification not possible”.

Components	Category	Content %
2-methyl-2,4-pentanediol	Not classified	1-5
Other components	Classification not possible	Remainder

Gem cell mutagenicity;

From the following result, this product is classified as “Classification not possible”.

Components	Category	Content %
All components	Classification not possible	100

Carcinogenicity;

From the following result, this product is classified as “Classification not possible”.

Components	Category	Content %
All components	Classification not possible	100

Toxic to reproduction;

From the following result, this product is classified as “Classification not possible”.

Components	Category	Content %
2-methyl-2,4-pentanediol	Not classified	1-5
Other components	Classification not possible	Remainder

Specific target organ systemic toxicity (Single exposure);

This product contains the components of “Category 3A”. But its content is less than 10%, Therefore, this product is classified as “Classification not possible”.

Components	Category	Content %
2-methyl-2,4-pentanediol	Category 2A	1-5
Other components	Classification not possible	Remainder

Specific target organ systemic toxicity (Repeated exposure);

From the following result, this product is classified as “Classification not possible”.

Components	Category	Content %
2-methyl-2,4-pentanediol	Not classified	1-5
Other components	Classification not possible	Remainder

Aspiration toxicity;

From the following result, this product is classified as “Classification not possible”.

Components	Category	Content %
All components	Classification not possible	100

12. ECOLOGICAL INFORMATION**Hazardous to the aquatic environment - Acute hazard;**

From the following result, this product is classified as “Classification not possible”.

Components	Category	Content %
2-methyl-2,4-pentanediol	Not classified	1-5
Other components	Classification not possible	Remainder

Hazardous to the aquatic environment – Chronic hazard;

From the following result, this product is classified as “Classification not possible”.

Components	Category	Content %
2-methyl-2,4-pentanediol	Not classified	1-5
Other components	Classification not possible	Remainder

13. PRECAUTION FOR DISPOSAL

Comply with all federal, state and local regulations. Do not dump this product into sewers, on the ground or into any body of water.

14. Precaution for transportation

UN number: Not applicable

Name and Description: Not applicable

UN classification: Not applicable

Land transportation: According to the Fire Services Act and Industrial Safety and Health Act.

Marine transportation: According to Ship Safety Law and Ports and Harbors Act.

Air transportation: According to Civil Aeronautics Act.

15. Applicable laws

Industrial Safety and Health Act (Article 57-2; notifiable substances): 2-methyl-2,4-pentanediol

PRTR: Not Applicable

Poisonous and Deleterious Substances Control Act: Not Applicable

Fire and Disaster Management Act: Flammable liquid (The fourth oil group)

Ship Safety Act; Not Applicable

Civil Aeronautics Act; Not Applicable

Ports and Harbors Act; Not Applicable

16. OTHER INFORMATION

Disclaimer

This MSDS is not for the safety warranty. When you handle this product, refer to this MSDS and take proper measures depending on the actual condition on user own responsibility. The information given in this MSDS is subject to revision without prior notice according to amendment of law or our new knowledge.