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Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

CG ESTER CORPORATION

Landic Nihonbashi BLDG 8F,

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Japan

Department for Information:

Technical Department,

Administration & Technical Division

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PRODUCT NAME PL-200

Serial Number: CGE-F-004

PRODUCT USE Primary plasticizer for PVC resin.

SYNONYMS 1,2-Benzenedicarboxylic acid,di-C9-11-branched and linear alkyl esters

di-C9-11-alkyl phthalate

Section 2 - HAZARDS IDENTIFICATION

Name of the hazard : Not applicable to local hazard classifications

classification (based on Japanese classification)

GHS Classification : NOT HAZARDOUS

GHS Label Elements

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Symbol(s) : No symbol
Signal Words : No signal word

GHS Hazard statements

notice

Safety measures

- Do not handle it until you confirm all instructions.
- It is the person using the tool for protection as needed.
- · Handle it at the outdoors or a good place of the ventilation.
- · Avoid release to environment.

(emergency measure)

- When you enter the eyes, wash it with water for several minutes.
- When there is concern of the revelation, receive treatment for the doctor.
- When you feel sick, contact a doctor.
- Letting I move it to the fresh place of the air when you inhale it and take a break.

(safekeeping)

Seal up a container, and keep it in a good place of the ventilation.

(First aid)

- If you have entered the eyes, wash with water for a few minutes.
- If there is a concern of exposure, get medical attention.
- · If you feel unwell, you may contact your doctor.
- · If you inhalation Remove victim to fresh air, and that to rest.

(Storage)

· The sealed be stored in good processing ventilated container.

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

Accidental ingestion of the material may be damaging to the health of the individual.

EYE

PL-200

Material Safety Data Sheet

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Limited evidence or practical experience suggests that the material may cause eye irritation in a substantial number of individuals. Prolonged eye contact may cause inflammation characterized by

a temporary redness of the conjunctiva (similar to windburn).

The liquid may produce eye discomfort and is capable of causing temporary impairment of vision

and/or transient eye inflammation, ulceration.

SKIN

There is some evidence to suggest that the material may cause mild but significant inflammation of the skin either following direct contact or after a delay of some time. Repeated exposure can cause

contact dermatitis which is characterized by redness, swelling and blistering.

Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce

systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure

that any external damage is suitably protected.

INHALED

Not normally a hazard due to non-volatile nature of product.

Inhalation hazard is increased at higher temperatures.

The material is not thought to produce either adverse health effects or irritation of the respiratory

tract following inhalation (as classified using animal models). Nevertheless, adverse effects have

been produced following exposure of animals by at least one other route and good hygiene

practice requires that exposure be kept to a minimum and that suitable control measures be used

in an occupational setting.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Classification of Substance and Mixture

Substance

Ingredient CAS No %

1,2-Benzenedicarboxylic acid,di-C9-11-branched and linear alkyl esters 68515-43-5 >99

Section 4 - FIRST AID MEASURES

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SWALLOWED

- If swallowed do NOT induce vomiting.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible)
 to maintain open airway and prevent aspiration.
- Observe the patient carefully.
- Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.
- Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- · Seek medical advice.

EYE

If this product comes in contact with the eyes:

- · Wash out immediately with fresh running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- If pain persists or recurs seek medical attention.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN

If skin contact occurs:

- · Immediately remove all contaminated clothing, including footwear
- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

INHALED

- If fumes or combustion products are inhaled, remove from contaminated area.
- Other measures are usually unnecessary.

NOTES TO PHYSICIAN

Treat symptomatically.

Section 5 - FIRE FIGHTING MEASURES

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EXTINGUISHING MEDIA

- Foam
- Dry chemical powder
- BCF (where regulations permit)
- · Carbon dioxide
- · Water spray or fog Large fires only

FIRE FIGHTING

- · Alert Emergency Responders and tell them location and nature of hazard.
- Wear full body protective clothing with breathing apparatus.
- Prevent, by any means available, spillage from entering drains or water course.
- · Use water delivered as a fine spray to control fire and cool adjacent area.
- Avoid spraying water onto liquid pools.
- Do not approach containers suspected to be hot.
- · Cool fire exposed containers with water spray from a protected location.
- · If safe to do so, remove containers from path of fire.

GENERAL FIRE HAZARDS/HAZARDOUS COMBUSTIBLE PRODUCTS

- · Combustible.
- Slight fire hazard when exposed to heat or flame.
- Heating may cause expansion or decomposition leading to violent rupture of containers.
- On combustion, may emit toxic fumes of carbon monoxide (CO).
- · May emit acrid smoke.
- Mists containing combustible materials may be explosive.

Combustion products include, carbon monoxide (CO), carbon dioxide (CO2), other pyrolysis products typical of burning organic material.

May emit poisonous fumes.

May emit corrosive fumes.

FIRE INCOMPATIBILITY

Avoid contamination with oxidizing agents i.e. nitrates, oxidizing acids, chlorine bleaches, pool chlorine etc. as ignition may result.

PERSONAL PROTECTION

Glasses:

Chemical goggles.

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Gloves:

PVC chemical resistant type.

Respirator:

Type A-P Filter of sufficient capacity

Section 6 - ACCIDENTAL RELEASE MEASURES

Point to Notice for Public Health:

Ventilate well indoor until disposal is finished. In case of accidental release, no admittance is allowed except people involved by stretching rope and others.

Wear protective equipments in case of operation.

Point to Notice for Environment

Pay attention to prevent the released product from leaking to public river so as to give no impact to environment.

Removing Method

In case of small amount, remove by absorbing with absorbents (sawdust, soil, sand, waste cloth, etc.), and then wipe off the waste well with waste cloth and rag.

In case of large amount, prevent leakage by enclosing with nonflammables (earth and sand, etc.) and collect into empty container by scoop, suction equipment or the like.

Preventive Measures of Secondary Disaster

Remove potential ignition source in vicinity as soon as possible, and simultaneously prepare extinguishing agent.

Section 7 - HANDLING AND STORAGE

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PROCEDURE FOR HANDLING

DO NOT allow clothing wet with material to stay in contact with skin.

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- · Use in a well-ventilated area.
- · Prevent concentration in hollows and sumps.
- DO NOT enter confined spaces until atmosphere has been checked.
- Avoid smoking, naked lights or ignition sources.
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- · Keep containers securely sealed when not in use.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- · Work clothes should be laundered separately.
- Use good occupational work practice.
- Observe manufacturer's storing and handling recommendations.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions.

RECOMMENDED STORAGE METHODS

- · Metal can or drum
- · Packing as recommended by manufacturer.
- Check all containers are clearly labeled and free from leaks.

STORAGE REQUIREMENTS

- Store in original containers.
- · Keep containers securely sealed.
- · No smoking, naked lights or ignition sources.
- Store in a cool, dry, well-ventilated area.
- Store away from incompatible materials and foodstuff containers.
- Protect containers against physical damage and check regularly for leaks.
- Observe manufacturer's storing and handling recommendations.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

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US OSHA Permissible Exposure Levels (PELs)

Z Material	TWA	TWA	STEL	STEL	Peak	Peak	Max	N	Лаx	Max
	ppm	mg/m3	ppm	mg/m3	ppm	mg/m3	excurs ppm		excursion mg/m3	excursion duration (mins)
Z1 di-C9-11-alkyl Phthalate		5								
Source		Materia	ıl	TWA ppm		_	STEL ppm	STEL mg/m		Peak mg/m3
ACGIH (2005)	di-C	9-11-alkyl	l phthala	ate Not	Establ	ished				

MATERIAL DATA

1,2-Benzenedicarboxylic acid,di-C9-11-branched and linear alkyl esters:

Not available. Refer to individual constituents.

PERSONAL PROTECTION

EYE

- Safety glasses with side shields.
- Chemical goggles.
- Contact lenses pose a special hazard; soft lenses may absorb irritants and all lenses concentrate them. DO NOT wear contact lenses.

HANDS/FEET

Suitability and durability of glove type is dependent on usage. Factors such a:

- · frequency and duration of contact,
- · chemical resistance of glove material,
- · glove thickness and
- dexterity

are important in the selection of gloves.

Wear chemical protective gloves, eg. PVC.

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Wear safety footwear or safety gumboots, eg. Rubber.

OTHER

- Overalls
- PVC apron
- · Barrier cream
- · Skin cleansing cream
- · Eye wash unit

RESPIRATOR

Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant.

Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

Breathing Zone	Maximum	Half-face	Full-Face
Level ppm	Protection Factor	Respirator	Respirator
(volume)			
1000	10	A-1 P	-
1000	50	-	A-1 P
5000	50	Airline*	-
5000	100	-	A-2 P
10000	100	-	A-3 P
	100+	Airline* *	

^{* -} Continuous Flow

The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required.

Use appropriate NIOSH-certified respirator based on informed professional judgement. In conditions where no reasonable estimate of exposure can be made, assume the exposure is in a concentration IDLH and use NIOSH-certified full face pressure demand SCBA with a minimum service life of 30 minutes, or a combination full facepiece pressure demand SAR with auxiliary self-contained air supply. Respirators provided only for escape from IDLH atmospheres shall be NIOSH-certified for escape from the atmosphere in which they will be used.

ENGINEERING CONTROLS

^{** -} Continuous-flow or positive pressure demand.

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General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in specific circumstances. If risk of overexposure exists, wear an approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL PROPERTIES

Color: Colorless

Physical State: Liquid pH: Not applicable Molecular Weight: 450

Melting Point: -0.4°F(-18°C)

Boiling Point: 806°F(430°C)

Flash Point: 478.4°F(248°C) (OC)

Auto-ignition Temperature: Not Available

Explosive Limits: Not Available

Vapor Pressure: 0.2mmHg@392°F(200°C)

0.02mmHg@302°F(150°C)

Vapor Density (Air = 1): Not Available Evaporation Rate: Not Available

Specific Gravity: 0.960@68°F(20°C)

Solubility: Insoluble in Water@68°F(20°C)

Partition Coefficient(n-octanol/water): Not Available

Decomposition Temperature: Not Available

Section 10 - STABILITY AND REACTIVITY

Stability:

Stable under ordinary conditions of use and storage.

Conditions to Avoid:

Heat, flames, ignition sources and incompatibles.

Incompatible Materials:

Strong oxidizing agents, acids, alkalies.

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Hazardous Decomposition Products:

Carbon dioxide and carbon monoxide may form when heated to decomposition.

Possibility of hazardous reactions:

Will not occur.

Section 11 - TOXICOLOGICAL INFORMATION

ACUTE EFFECTS

Oral LD50: Not Available Dermal LD50: Not Available Inhalation (vapor) LD50: Not Available Not Available Inhalation (mist) LD50: Dermal Corrosion/Irritation: Not Available Serious Eye Damage/Irritation: Not Available Respiratory sensitization: Not Available Skin sensitization: Not Available Carcinogenicity: Not Available Reproductive toxicity: Not Available STOST-Single exposure: Not Available STOST-Repeated exposure: Not Available Aspiration hazard if inhaled: Not Available Endocrine disorder: Not Available

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity:

Hazards to the aquatic environment (acute):

Hazards to the aquatic environment (chronic):

Not Available

Persistence/Degradation:

Not Available

Bioaccumulation:

Not Available

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Section 13 - DISPOSAL CONSIDERATIONS

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

US EPA guidances for the classification determination are listed in 40 CFR Parts 261.3.

Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: Not listed.

RCRA U-series: CAS No 68515-43-5:waste number U028

Section 14 - TRANSPORTATION INFORMATION

US DOT

Shipping Name: Not regulated as a hazardous material.

Hazard Class:

UN Number:

Packing Group:

CANADA TDG

Shipping Name: Not regulated as a hazardous material.

Hazard Class:

UN Number:

Packing Group:

USA RQ: CAS No 68515-43-5

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Section 15 - REGULATORY INFORMATION

RISK

Risk Codes Risk Phrases

R58 May cause long-term adverse effects in the environment.

REGULATIONS

di-C9-11-alkyl phthalate (CAS: 68515-43-5) is found on the following regulatory lists;

Canada Domestic Substances List (DSL)

International Council of Chemical Associations (ICCA) -High Production Volume List

OECD Representative List of High Production Volume (HPV) Chemicals

US Toxic Substances Control Act (TSCA) –Inventory

Section 16 - OTHER INFORMATION

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, expressed or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purpose. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, or exemplary damages however arising, even if the company has been advised of the possibility of such damages.