

PASLODE IMPULSE DEGREASER CLEANER**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION****PRODUCT NAME**

PASLODE IMPULSE DEGREASER CLEANER

SYNONYMS

Product Code B20544L

PROPER SHIPPING NAME

AEROSOLS, Flammable

PRODUCT USE

Application is by spray atomisation from a hand held aerosol pack Quick-drying solvent cleaner and degreaser.

SUPPLIERCompany: Paslode Australia (A Division Of ITW Australia Pty Ltd)
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Ingleburn
NSW, 2565
AUSTRALIA
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Auckland
NewZealand
Telephone: (09)477 3001
Email: bwarner@paslode.co.nz**2. HAZARDS IDENTIFICATION****STATEMENT OF HAZARDOUS NATURE****HAZARDOUS SUBSTANCE. DANGEROUS GOODS.**

According to the Criteria of NOHSC, and the ADG Code.

POISONS SCHEDULE None**HSNO CLASS** 2.1.2A**RISK**Extremely flammable.
Irritating to skin.
Risk of explosion if heated under confinement.
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Vapours may cause drowsiness and dizziness.
Inhalation, skin contact and/or ingestion may produce health damage*.
Cumulative effects may result following exposure*.
May produce discomfort of the respiratory system*

Eye contact may produce damage*. May affect fertility*.
 May be harmful to the foetus/ embryo*. * (limited evidence)

SAFETY

Keep container in a well ventilated place.
 Avoid exposure - obtain special instructions before use.
 Keep container tightly closed.
 Take off immediately all contaminated clothing.
 If you feel unwell contact Doctor or Poisons Information Centre. (Show the label if possible).

3. COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
n-heptane	142-82-5	>60
carbon dioxide	124-38-9	1-10

4. FIRST AID MEASURES

SWALLOWED

Not considered a normal route of entry.

- 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 aerosols come in contact with the eyes:

- Immediately hold the eyelids apart and flush the eye continuously for at least 15 minutes 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.
- Transport to hospital or doctor without delay.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN

If solids or aerosol mists are deposited upon the skin:

- Flush skin and hair with running water (and soap if available).
- Remove any adhering solids with industrial skin cleansing cream.
- DO NOT use solvents.
- Seek medical attention in the event of irritation.

INHALED

If aerosols, fumes or combustion products are inhaled:

- Remove to fresh air.
- Lay patient down. Keep warm and rested.
- Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- If breathing is shallow or has stopped, ensure clear airway and apply resuscitation, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.
- Transport to hospital, or doctor.

NOTES TO PHYSICIAN

Treat symptomatically.

For acute or short term repeated exposures to petroleum distillates or related hydrocarbons:

- Primary threat to life, from pure petroleum distillate ingestion and/or inhalation, is respiratory failure.
- Patients should be quickly evaluated for signs of respiratory distress (e.g. cyanosis, tachypnoea, intercostal retraction, obtundation) and given oxygen. Patients with inadequate tidal volumes or poor arterial blood gases (pO₂ 50 mm Hg) should be intubated.
- Arrhythmias complicate some hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury has been reported; intravenous lines and cardiac monitors should be established in obviously symptomatic patients. The lungs excrete inhaled solvents, so that hyperventilation improves clearance.
- A chest x-ray should be taken immediately after stabilisation of breathing and circulation to document aspiration and detect the presence of pneumothorax.
- Epinephrine (adrenalin) is not recommended for treatment of bronchospasm because of potential myocardial sensitisation to catecholamines. Inhaled cardioselective bronchodilators (e.g. Alupent, Salbutamol) are the preferred agents, with aminophylline a second choice.
- Lavage is indicated in patients who require decontamination; ensure use of cuffed endotracheal tube in adult patients. [Ellenhorn and Barceloux: Medical Toxicology]

5. FIRE FIGHTING MEASURES**EXTINGUISHING MEDIA**

SMALL FIRE:

Water spray, dry chemical or CO₂

LARGE FIRE:

Water spray or fog.

FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- May be violently or explosively reactive.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water course.
- If safe, switch off electrical equipment until vapour fire hazard removed.
- Use water delivered as a fine spray to control fire and cool adjacent area.
- 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.
- Equipment should be thoroughly decontaminated after use.

FIRE/EXPLOSION HAZARD

- Liquid and vapour are flammable.
 - Moderate fire hazard when exposed to heat or flame.
 - Vapour forms an explosive mixture with air.
 - Moderate explosion hazard when exposed to heat or flame.
 - Vapour may travel a considerable distance to source of ignition.
 - Heating may cause expansion or decomposition leading to violent rupture of containers.
 - Aerosol cans may explode on exposure to naked flame.
 - Rupturing containers may rocket and scatter burning materials.
 - Hazards may not be restricted to pressure effects.
 - May emit acrid, poisonous or corrosive fumes.
 - On combustion, may emit toxic fumes of carbon monoxide (CO).
- Combustion products include carbon dioxide (CO₂)

other pyrolysis products typical of burning organic material

Contains low boiling substance: Closed containers may rupture due to pressure buildup under fire conditions.

FIRE INCOMPATIBILITY

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

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Personal Protective Equipment

Glasses: Safety Glasses.

Gloves: Nitrile or PVC

Respirator:

Type A Filter of sufficient capacity

6. ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES

MINOR SPILLS

- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Wear protective clothing, impervious gloves and safety glasses.

Shut off all possible sources of ignition and increase ventilation.

- Wipe up.
- If safe, damaged cans should be placed in a container outdoors, away from all ignition sources, until pressure has dissipated.
- Undamaged cans should be gathered and stowed safely.

MAJOR SPILLS

- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- May be violently or explosively reactive.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water courses
- No smoking, naked lights or ignition sources.
- Increase ventilation.
- Stop leak if safe to do so.
- Water spray or fog may be used to disperse / absorb vapour.
- Absorb or cover spill with sand, earth, inert materials or vermiculite.
- If safe, damaged cans should be placed in a container outdoors, away from ignition sources, until pressure has dissipated.
- Undamaged cans should be gathered and stowed safely.
- Collect residues and seal in labelled drums for disposal.

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

7. HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- 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.
- DO NOT incinerate or puncture aerosol cans.
- DO NOT spray directly on humans, exposed food or food utensils.
- 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 are maintained.

SUITABLE CONTAINER

- Aerosol dispenser.
- Check that containers are clearly labeled.

STORAGE INCOMPATIBILITY

Avoid reaction with oxidising agents

STORAGE REQUIREMENTS

Keep dry to avoid corrosion of cans. Corrosion may result in container perforation and internal pressure may eject contents of can

- Store in original containers in approved flammable liquid storage area.
- DO NOT store in pits, depressions, basements or areas where vapours may be trapped.
- No smoking, naked lights, heat or ignition sources.
- Keep containers securely sealed. Contents under pressure.
- Store away from incompatible materials.
- Store in a cool, dry, well ventilated area.
- Avoid storage at temperatures higher than 40 deg C.
- Store in an upright position.
- Protect containers against physical damage.
- Check regularly for spills and leaks.
- Observe manufacturer's storing and handling recommendations.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**EXPOSURE CONTROLS****ODOUR SAFETY FACTOR (OSF)**

OSF=0.068 (CARBON DIOXIDE)

Exposed individuals are NOT reasonably expected to be warned, by smell, that the Exposure Standard is being exceeded.

Odour Safety Factor (OSF) is determined to fall into either Class C, D or E.

The Odour Safety Factor (OSF) is defined as:

OSF= Exposure Standard (TWA) ppm/ Odour Threshold Value (OTV) ppm

Classification into classes follows:

Class	OSF	Description
A	550	Over 90% of exposed individuals are aware by smell that the Exposure Standard (TLV-TWA for example) is being reached, even when distracted by working activities
B	26-550	As "A" for 50-90% of persons being distracted
C	1-26	As "A" for less than 50% of persons being distracted
D	0.18-1	10-50% of persons aware of being tested perceiv by smell that the Exposure Standard is being reached
E	<0.18	As "D" for less than 10% of persons aware of being tested

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EXPOSURE STANDARDS FOR MIXTURE

"Worst Case" computer-aided prediction of vapour components/concentrations:

Composite Exposure Standard for Mixture (TWA) (mg/m³):
1653.5221 mg/m³ If the breathing zone concentration of ANY of the components listed below is exceeded, "Worst Case" considerations deem the individual to be overexposed. Component Breathing Zone ppm Breathing Zone mg/m³ Mixture Cone: (%)

Component	Breathing zone (ppm)	Breathing Zone (mg/m ³)	Mixture Cone (%)
n-heptane	399.27	1636.9869	99.0
carbon dioxide	9.19	16.5352	1.0

REPRODUCTIVE HEALTH GUIDELINES

Established occupational exposure limits frequently do not take into consideration reproductive end points that are clearly below the thresholds for other toxic effects. Occupational reproductive guidelines (ORGs) have been suggested as an additional standard. These have been established after a literature search for reproductive no-observed-adverse effect-level (NOAEL) and the lowest-observed-adverse-effect-level (LOAEL). In addition the US EPA's procedures for risk assessment for hazard identification and dose-response assessment as applied by NIOSH were used in the creation of such limits.

Ingredient	ORG	UF	Endpoint	CR	TLV Adeq
carbon dioxide	1800 mg/m ³	10	D/R	NA	-

These exposure guidelines have been derived from a screening level of risk assessment and should not be construed as unequivocally safe limits. ORGS represent an 8-hour time-weighted average unless specified otherwise.

CR = Cancer Risk/10000; UF = Uncertainty factor:

TLV believed to be adequate to protect reproductive health:

LOD: Limit of detection

Toxic endpoints have also been identified as:

D = Developmental; R = Reproductive; TC = Transplacental carcinogen

Jankovic J., Drake F.: A Screening Method for Occupational Reproductive
American Industrial Hygiene Association Journal 57: 641-649 (1996)

INGREDIENT DATA**N-HEPTANE:**

PEL TWA: 500 ppm, 1800 mg/m³ [OSHA Z1]

ES TWA: 400 ppm, 1640 mg/m³; STEL: 500 ppm, 2050 mg/m³

TLV TWA: 400 ppm, 1640 mg/m³; STEL: 500 ppm, 2050 mg/m³

MAK value: 500 ppm, 2100 mg/m³

MAK Category I Peak Limitation: For local irritants Allows excursions of twice the MAK value for 5 minutes at a time, 8 times per shift.

MAK Group Me: Substances with MAK Values but no pregnancy risk group classification. These are substances which have been investigated but for which no information regarding possible damage to the foetus/embryo was found. Mention calls attention to the absence of adequate data.

MAK values, and categories and groups are those recommended within the Federal Republic of Germany

Odour Threshold Value: 227 ppm (detection), 329 ppm (recognition)

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IDLH Level: 750 ppm

The TLV-TWA is protective against narcotic and irritant effects which are greater than those of pentane or n-hexane but less than those of octane.

The TLV-TWA applies to all isomers.

Inhalation by humans of 1000 ppm for 6 minutes produced slight dizziness.

Higher concentrations for shorter periods produce marked vertigo, incoordination and hilarity. Signs of central nervous system depression occur in the absence of mucous membrane irritation. Brief exposures to high levels (5000 ppm for 4 minutes) produce nausea, loss of appetite and a "gasoline-like" taste in the mouth that persists for many hours after exposure ceases.

CARBON DIOXIDE:

TLV TWA: 5000 ppm [ACGIH]

TLV STEL: 30000 ppm [ACGIH]

PEL TWA: 5000 ppm, 9000 mg/m³ [OSHA Z1]

carbon dioxide gas:

ES TWA: 5000 ppm, 9000 mg/m³; STEL: 30000 ppm, 54000 mg/m³

TLV TWA: 5000 ppm, 9000 mg/m³; STEL: 30000 ppm, 54000 mg/m³

OES TWA: 5000 ppm, 9150 mg/m³; STEL: 15000 ppm, 27400 mg/m³

MAK value: 5000 ppm, 9100 mg/m³

MAK Category IV Peak Limitation: For substances with very weak effects (ie.) those with MAK value >500 ml/m³ (ppm): Allows excursions of twice the MAK value for 60 minutes at a time, 3 times per shift.

MAK values, and categories and groups are those recommended within the Federal Republic of Germany

IDLH Level: 40000 ppm

NOTE: Detector tubes for carbon dioxide, measuring in excess of 0.01 % vol.,

are commercially available. Long-term measurements (4 hrs) may be

conducted to detect concentrations exceeding 250 ppm. Studies using physically fit

males in confined spaces indicate the TLV-TWA and STEL provides a wide margin of safety against asphyxiation and from undue metabolic stress, provided normal amounts of oxygen are present in inhaled air. Lowered oxygen content, increased physical activity and prolonged exposures each impact on systemic and respiratory effects. Stimulation of the respiratory centre is produced at 50,000 ppm (5%). The gas is weakly narcotic at 30,000 ppm giving rise to reduced acuity of hearing and increasing blood pressure and pulse, Persons exposed at 20,000 ppm for several hours developed headaches and dyspnea on mild exertion, Acidosis and adrenal cortical exhaustion occurred as a result of prolonged continuous exposure at 10,000-20,000 ppm. Intoxication occurs after a 30 minute exposure at 50,000 ppm whilst exposure at 70,000-100,000 ppm produces unconsciousness within a few minutes.

PERSONAL PROTECTION

EYE

No special equipment for minor exposure i.e. when handling small quantities. OTHERWISE: For potentially moderate or heavy exposures:

- Safety glasses with side shields.

- NOTE: Contact lenses pose a special hazard; soft lenses may absorb irritants and ALL lenses concentrate them.

HANDS/FEET

No special equipment needed when handling small quantities.

OTHERWISE:

For potentially moderate exposures:

Wear general protective gloves, eg. light weight rubber gloves.

For potentially heavy exposures:

Wear chemical protective gloves, eg. PVC. and safety footwear.

OTHER

No special equipment needed when handling small quantities.

OTHERWISE:

- Overalls.

- Skin cleansing cream.

- Eyewash unit.

- Do not spray on hot surfaces.

ENGINEERING CONTROLS

General exhaust is adequate under normal conditions. If risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection.

Provide adequate ventilation in warehouse or closed storage areas.

Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

Type of Contaminant:	Speed:
aerosols, (released at low velocity into zone of active generation)	0.5-1 m/s
direct spray, spray painting in shallow booths, gas discharge (active generation into zone of rapid air motion)	1-2.5 m/s (200-500 f/min.)

Within each range the appropriate value depends on:

Lower end of the range	Upper end of the range
1: Room air currents minimal or favourable to capture	1: Disturbing room air currents
2: Contaminants of low toxicity or of nuisance value only.	2: Contaminants of high toxicity
3: Intermittent, low production.	3: High production, heavy use
4: Large hood or large air mass in motion	4: Small hood-local control only

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min.) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within

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the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Clear colourless flammable liquid; does not mix with water. Mild petrol-like odour.

PHYSICAL PROPERTIES

Gas.

Does not mix with water.

Floats on water.

Molecular Weight: Not Applicable

Melting Range (°C): Not Available

Solubility in water (g/L): Immiscible pH

(1% solution): Not Applicable Volatile

Component (%vol): 100 Relative

Vapour Density (air=1): >1 Lower

Explosive Limit (%): 1.2 Autoignition

Temp (°C): Not Available State:

Compressed Gas

Boiling Range (°C): 98

Specific Gravity (water=1): 0.71

pH (as supplied):

Vapour Pressure (kPa): Not Available

Evaporation Rate: 1 Ether = 1

Flash Point (°C): -8

Upper Explosive Limit (%): 7.0

Decomposition Temp (°C): Not Available

10. CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

- Elevated temperatures.
- Presence of open flame.
- Product is considered stable.
- Hazardous polymerisation will not occur.

11. TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

Not normally a hazard due to physical form of product.

Considered an unlikely route of entry in commercial/industrial environments

Swallowing of the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis; serious consequences may result. (ICSC13733)

Central nervous system (CNS) depression may include general discomfort, symptoms

of giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. Serious poisonings may

result in respiratory depression and may be fatal.

EYE

The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

SKIN

Skin contact with the material may damage the health of the individual; systemic effects may result following absorption.

This material can cause inflammation of the skin on contact in some persons.

The material may accentuate any pre-existing dermatitis condition

INHALED

Inhalation of aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual. There is some evidence to suggest that the material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.

Inhalation of high concentrations of gas/vapour causes lung irritation with coughing and nausea, central nervous depression with headache and dizziness, slowing of reflexes, fatigue and inco-ordination.

WARNING: Intentional misuse by concentrating/inhaling contents may be lethal. If exposure to highly concentrated solvent atmosphere is prolonged this may lead to narcosis, unconsciousness, even coma and possible death.

CHRONIC HEALTH EFFECTS

Principal routes of exposure are by accidental skin and eye contact and by inhalation of vapours especially at higher temperatures.

Chronic solvent inhalation exposures may result in nervous system impairment and liver and blood changes. [PATTYS]

Paslode Impulse Degreaser Cleaner

Not available. Refer to individual constituents.
unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances

N-HEPTANE:

TOXICITY	IRRITATION
Inhalation (human) TClO: 1000 ppm/6m	Nil reported

CARBON DIOXIDE:

TOXICITY	IRRITATION
carbon dioxide gas:	
Inhalation (human) LClO: 10 pph/1 m (10%)	Nil reported
Inhalation (human) LClO: 9 pph/5 m (9%)	
Inhalation (rat) LClO: 657190 ppm/15 m	
Inhalation (human) TClO: 2000 ppm	
- pulmonary effects IDLH: 50,000 ppm	

12. ECOLOGICAL INFORMATION

Drinking Water Standards:
hydrocarbon total: 10 ug/l (UK max.).

DO NOT discharge into sewer or waterways.

Very toxic to aquatic organisms.

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning

equipment or disposing of equipment wash-waters.

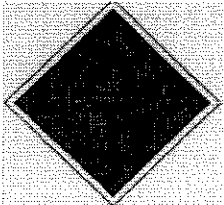
Wastes resulting from use of the product must be disposed of on site or at approved waste sites

May cause long-term adverse effects in the aquatic environment

13. DISPOSAL CONSIDERATIONS

- Consult State Land Waste Management Authority for disposal.
- Discharge contents of damaged aerosol cans at an approved site.
- Allow small quantities to evaporate.
- DO NOT incinerate or puncture aerosol cans.
- Bury residues and emptied aerosol cans at an approved site.

14. TRANSPORTATION INFORMATION



Shipping Name:

AEROSOLS, Flammable Dangerous Goods Class: 2.1

UN/NA Number: 1950

ADR Number:

Packing Group: None

Labels Required: flammable gas

Additional Shipping Information:

International Transport Regulations:

IMO:2.1

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15. REGULATORY INFORMATION

The person selling or supplying amounts exceeding 1L aggregate water content must ensure that the material safety data sheet is available to the other person if:

1. the supplier is satisfied the other person is likely to use this product at work and
2. the other person has never been sold or supplied with the substance in that state

This Safety Data Sheet must be available to a person handling the product within 10 minutes

A person who manufactures, supplies or imports this product into NZ must if asked to do so by any person in charge of a place of work where the product is stored and used, give that person a copy of the MSDS.

SITE AND STORAGE CONTROL REGULATIONS:

Requirements for:	Trigger Quantities
Location and transit depot test certification	3,000L (awc)
Hazardous atmosphere zone	3,000L (awc)
Fire extinguishers required	3,000L (awc)
Emergency response plans	3,000L (awc)
Site signage	3,000L (awc)

APPROVED HANDLER:

An Approved Handler is required on site when quantities of 100 kg are present or otherwise it must be secured so that a person cannot gain access without keys, tools or devices used to operate locks when an Approved Handler is not available.

The substance may be handled by a person who is not an Approved Handler provided an Approved Handler is available at all times to provide assistance if necessary.

POISONS SCHEDULE

None

16. OTHER INFORMATION

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