



Diesel Engine Induction/EGR Cleaner

SECTION 1. IDENTIFICATION

Product Identifier	Diesel Engine Induction/EGR Cleaner
Part number	DES928-378
Product Family	Alkali
Recommended Use	Cleaner.
Restrictions on Use	Not applicable.
Supplier Identifier	Kenvo Technology, 11543 160 Street, Edmonton, AB, T5M 3V9, 1.888.467.4142
Emergency Phone No.	CANUTEC, +1.613.996.6666, Operation hours: 24/7

SECTION 2. HAZARD IDENTIFICATION

Classification

Skin corrosion - Category 1; Serious eye damage - Category 1

Label Elements



Danger

Causes severe skin burns and eye damage.
Causes serious eye damage.

Wash hands and skin thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
Wash contaminated clothing before reuse.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
Immediately call a POISON CENTRE or doctor.

Store locked up.

Dispose of contents and container in accordance with local, regional, national and international regulations.

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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Sodium hydroxide	1310-73-2	1-5		

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Not a hazard under normal conditions of use.

Remove source of exposure or move to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor. If breathing has stopped, trained personnel should begin rescue breathing. Get medical attention immediately.

Skin Contact

Take off immediately contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately rinse skin with lukewarm, gently flowing water for at least 30 minutes. Immediately call a Poison Centre or doctor.

Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for at least 30 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. Continue rinsing.

Get immediate medical attention.

Ingestion

Never give anything by mouth if person is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. If vomiting occurs naturally, lie on your side in the recovery position. Rinse mouth with water again. Drink two glasses of water. Immediately call a Poison Centre or doctor.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Carbon dioxide or dry chemical.

Unsuitable Extinguishing Media

Do not use a direct stream of water.

Specific Hazards Arising from the Product

Does not burn.

Carbon oxides, and other unidentified organic compounds.

Special Protective Equipment and Precautions for Fire-fighters

Fire-fighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA).

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Use the personal protective equipment recommended in Section 8 of this safety data sheet. Do not touch damaged containers or spilled product unless wearing appropriate protective equipment.

Environmental Precautions

If the spill is inside a building, prevent product from entering drains, ventilation systems and confined areas. Do not allow into any sewer, on the ground or into any waterway.

Methods and Materials for Containment and Cleaning Up

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Stop or reduce leak if safe to do so. Contain and soak up spill with absorbent that does not react with spilled product. Contaminated absorbent poses the same hazard as the spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Containers of this material may contain hazardous residues when "emptied". It is good practice to: avoid breathing product; avoid skin and eye contact and wash hands after handling. Wear personal protective equipment to avoid direct contact with this chemical. Wash hands thoroughly after handling this material.

Conditions for Safe Storage

Store in an area that is: well-ventilated.

Keep from freezing.

Store in an area that is: out of direct sunlight and away from heat and ignition sources. Store in a closed container.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Chemical Name	ACGIH® TLV®		OSHA PEL		AIHA® WEEL®	
	TWA	STEL [C]	TWA	Ceiling	8-hr TWA	Short-term TWA [C]
Sodium hydroxide	2 mg/m3	Not established	2 mg/m3	Not established		

Appropriate Engineering Controls

Sufficient mechanical ventilation to maintain exposures below the TLV. Under normal conditions of use, general ventilation should be satisfactory. Local ventilation is recommended if the product is misted or used in a confined space or if the TLV is exceeded. Make up air should always be supplied to balance air exhausted. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection

Safety glasses with side shields. Contact lenses should not be worn, they may contribute to the severity of the injury.

Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

Suitable materials are: nitrile rubber, polyvinyl alcohol.

Respiratory Protection

Not normally required if product is used as directed. No specific guidelines are available.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Pink - red liquid.
Odour	Not available
Odour Threshold	Not available
pH	13.5
Melting Point/Freezing Point	Not available (melting)
Initial Boiling Point/Range	Not applicable
Flash Point	Not applicable
Evaporation Rate	Not available
Flammability (solid, gas)	Not applicable (liquid).

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Upper/Lower Flammability or Explosive Limit	Not applicable (upper); Not applicable (lower)
Vapour Pressure	Not available
Vapour Density (air = 1)	Not available
Relative Density (water = 1)	1.03
Solubility	Soluble in water
Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	Not applicable
Decomposition Temperature	Not available
Viscosity	Not available (kinematic)
Other Information	
VOC %	Not available
Flame projectioni	Not applicable
NFPA Classification	Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Stable at ambient temperatures and pressures.

Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

Conditions to Avoid

Incompatible materials.

Incompatible Materials

Strong oxidizing agents (e.g. perchloric acid), strong acids (e.g. hydrochloric acid).

Hazardous Decomposition Products

Carbon oxides. And other unidentified organic compounds.

SECTION 11. TOXICOLOGICAL INFORMATION

Information presented below is for the entire product, unless otherwise specified.

Likely Routes of Exposure

Inhalation;
Skin contact;
Eye contact;
Ingestion.

Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Sodium hydroxide	Not available	Not available	Not available

LC50: No information was located.

LD50 (oral): No information was located.

LD50 (dermal): No information was located.

Skin Corrosion/Irritation

Human experience and animal tests show mild irritation.

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Serious Eye Damage/Irritation

Moderate to severe irritant.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

High concentrations may cause respiratory irritation and central nervous system depression with results ranging from dizziness and headache to unconsciousness.

Skin Absorption

No information was located.

Ingestion

May cause a burning sensation and possible tissue damage of the mucous membranes and the digestive tract.

Aspiration Hazard

Not known to be an aspiration hazard.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

No information was located.

Respiratory and/or Skin Sensitization

No information was located for respiratory sensitization.

No information was located for skin sensitization.

Carcinogenicity

Not a carcinogen.

No information was located for: Development of Offspring, Sexual Function and Fertility, Effects on or via Lactation, Germ Cell Mutagenicity, Interactive Effects

SECTION 12. ECOLOGICAL INFORMATION

This section is not required by WHMIS.

This section is not required by OSHA HCS 2012.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Empty containers retain product residue. Follow label warnings even if container appears to be empty. Do not reuse empty containers. Recycle and reuse product, if possible. This product and its container must be disposed of as hazardous waste. Do NOT dump into any sewers, on the ground or into any body of water. Dispose of in accordance with municipal, provincial/state or federal regulations.

SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
Canadian TDG	UN1824	Sodium hydroxide solution	8	III
IMDG (Marine)	UN1824	Sodium hydroxide solution	8	III
IATA (Air)	UN1824	Sodium hydroxide solution	8	III
US DOT	UN1824	Sodium hydroxide solution	8	III

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

Emergency Response 154 EmS F-A, S-B

Guide No.

Other Information ICAO/IATA PI Y841/852/856

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Product may ship as LTD QTY if TDG, ICAO/IATA or IMDG Limited Quantity provisions are met.

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

All ingredients are listed on the DSL/NDSL.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are listed on the TSCA Inventory.

Additional USA Regulatory Lists

CERCLA. (Sodium hydroxide)

SARA Title III - Section 302: Not applicable.

SARA Title III - Section 313: Not applicable.

California Proposition 65: Not applicable.

Massachusetts Right To Know: Not applicable.

New Jersey Right To Know. (Sodium hydroxide)

Pennsylvania Right To Know. (Sodium hydroxide)

SECTION 16. OTHER INFORMATION

NFPA Rating	Health - 3	Flammability - 0	Instability - 0
SDS Prepared By	Performa Lubricants International, Inc.		
Phone No.	800.201.9486		
Date of Preparation	March 03, 2016		
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Revision Indicators	The following SDS content was changed on April 28, 2016: SECTION 1. IDENTIFICATION; SDS No. The following SDS content was changed on May 02, 2017: SECTION 1. IDENTIFICATION.		
Key to Abbreviations	ACGIH® = American Conference of Governmental Hygienists CANUTEC = Canadian Transport Emergency Centre CAS = Chemical Abstract Service CCOHS = Canadian Centre for Occupational Health & Safety CNS = Central nervous system GESTIS = GESTIS Substance Database HSDB® = Hazardous Substances Data Bank IARC = International Agency for Research on Cancer ICAO = International Civil Aviation Organization IMDG = International Maritime Dangerous Goods Code LC = Lethal concentration LD = Lethal dose NFPA = National Fire Protection Association NTP = National Toxicology Program OSHA = US Occupational Safety and Health Administration PPM = Parts per million RTECS® = Registry of Toxic Effects of Chemical Substances STEL = Short term exposure limit TDG = Transportation of Dangerous Goods Regulations (Canada) TWA = Time weighted average		
References	Material Safety Data Sheet from manufacturer.		

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CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS).
HSDB® database. US National Library of Medicine. Available from Canadian Centre for Occupational Health and Safety (CCOHS).
Registry of Toxic Effects of Chemical Substances (RTECS®) database. Dassault Systèmes/BIOVIA ("BIOVIA"). Available from Canadian Centre for Occupational Health and Safety (CCOHS).

ECHA - European Chemical Agency, Classification and Labelling Inventory
GESTIS Substance Database

OECD - The Global Portal to Information on Chemical Substances - eChemPortal, 2015.

Disclaimer

The information contained herein is offered only as a guide to the use and handling of this specific material and has been prepared in good faith. It is not intended to be all-inclusive, and the manner and conditions of use and handling may involve other and additional considerations. No warranty of any kind is given or implied. Shrader Canada Limited will not be liable for any damages, losses, injuries or consequential damages which may result from the use of or reliance on any information contained herein.

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