



SAFETY DATA SHEET US MX 21 K2

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200.

1. Identification

Product identifier

Product name US MX 21 K2
Product number PF010067

Recommended use of the chemical and restrictions on use

Application Use as a fuel
Uses advised against Use only for intended applications.

Details of the supplier of the safety data sheet

Supplier Haltermann Carless US Inc.
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Emergency telephone number

Emergency telephone 24/7 Worldwide Emergency Telephone: CHEMTREC on +1-703-527-3887 / +1-800-424-9300.

National emergency telephone number 24/7 Worldwide Emergency Telephone Number for Hazardous Materials Incident, Spill, Leak, Fire, Exposure or Accident: CHEMTREC on +1 703-741-5970 / +1-800-424-9300.

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Flam. Liq. 2 - H225

Health hazards Skin Irrit. 2 - H315 Repr. 2 - H361d STOT SE 3 - H336 Asp. Tox. 1 - H304

Environmental hazards Aquatic Acute 2 - H401 Aquatic Chronic 2 - H411

Human health Prolonged or repeated contact with skin may cause irritation, redness and dermatitis.

Environmental The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

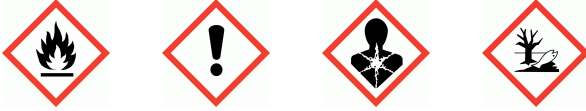
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Physicochemical

Vapors are heavier than air and may travel along the floor and accumulate in the bottom of containers. Vapors may be ignited by a spark, a hot surface or an ember. Vapors may form explosive mixtures with air.

Label elements

Hazard symbols



Signal word

Danger

Hazard statements

H225 Highly flammable liquid and vapor.
 H315 Causes skin irritation.
 H361d Suspected of damaging the unborn child.
 H336 May cause drowsiness or dizziness.
 H304 May be fatal if swallowed and enters airways.
 H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P201 Obtain special instructions before use.
 P202 Do not handle until all safety precautions have been read and understood.
 P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking.
 P240 Ground/ bond container and receiving equipment.
 P241 Use explosion-proof electrical equipment.
 P242 Use only non-sparking tools.
 P243 Take precautionary measures against static discharge.
 P261 Avoid breathing vapor/ spray.
 P264 Wash contaminated skin thoroughly after handling.
 P271 Use only outdoors or in a well-ventilated area.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
 P301+P310 If swallowed: Immediately call a poison center/ doctor.
 P302+P352 If on skin: Wash with plenty of water.
 P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
 P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.
 P308+P313 If exposed or concerned: Get medical advice/ attention.
 P312 Call a poison center/ doctor if you feel unwell.
 P321 Specific treatment (see medical advice on this label).
 P331 Do NOT induce vomiting.
 P332+P313 If skin irritation occurs: Get medical advice/ attention.
 P362+P364 Take off contaminated clothing and wash it before reuse.
 P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.
 P391 Collect spillage.
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.
 P403+P235 Store in a well-ventilated place. Keep cool.
 P405 Store locked up.
 P501 Dispose of contents/ container in accordance with national regulations.

Contains

Gasoline, DI-ISOPROPYL ETHER

Other hazards

This substance is not classified as PBT or vPvB according to current EU criteria.

3. Composition/information on ingredients

Mixtures

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Gasoline	>70-<90%
CAS number: 86290-81-5	
Classification	
Flam. Liq. 2 - H225	
Skin Irrit. 2 - H315	
Repr. 2 - H361d	
STOT SE 3 - H336	
Asp. Tox. 1 - H304	
Aquatic Acute 2 - H401	
Aquatic Chronic 2 - H411	
DI-ISOPROPYL ETHER	>10-<30%
CAS number: 108-20-3	
Classification	
Flam. Liq. 2 - H225	
STOT SE 3 - H336	

The full text for all hazard statements is displayed in Section 16.

4. First-aid measures

Description of first aid measures

General information	Remove affected person from source of contamination. Place unconscious person on their side in the recovery position and ensure breathing can take place.
Inhalation	Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.
Ingestion	Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.
Skin Contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

Most important symptoms and effects, both acute and delayed

Inhalation	Vapors in high concentrations are anesthetic. Vapors in high concentrations are narcotic. Symptoms following overexposure may include the following: Headache. Fatigue. Dizziness. Central nervous system depression.
Ingestion	Aspiration hazard if swallowed. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.
Skin contact	Skin irritation. Prolonged contact may cause redness, irritation and dry skin.
Eye contact	No specific symptoms known.

Indication of immediate medical attention and special treatment needed

Notes for the doctor	Treat symptomatically.
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5. Fire-fighting measures

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Extinguishing media

Suitable extinguishing media Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture

Specific hazards Vapors are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back. Vapors may form explosive mixtures with air. Containers can burst violently or explode when heated, due to excessive pressure build-up.

Hazardous combustion products Thermal decomposition or combustion products may include the following substances: Oxides of carbon.

Advice for firefighters

Protective actions during firefighting Avoid breathing fire gases or vapors. Use water to keep fire exposed containers cool and disperse vapors. Control run-off water by containing and keeping it out of sewers and watercourses.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet. Use suitable respiratory protection if ventilation is inadequate. No smoking, sparks, flames or other sources of ignition near spillage. Avoid inhalation of vapors and contact with skin and eyes. Provide adequate ventilation. Take precautionary measures against static discharges.

Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground. Avoid the spillage or runoff entering drains, sewers or watercourses.

Methods and material for containment and cleaning up

Methods for cleaning up Stop leak if safe to do so. Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Absorb in vermiculite, dry sand or earth and place into containers. Collect and place in suitable waste disposal containers and seal securely.

Reference to other sections For personal protection, see Section 8. For waste disposal, see Section 13.

7. Handling and storage

Precautions for safe handling

Usage precautions Do not use in confined spaces without adequate ventilation and/or respirator. Eliminate all sources of ignition. Keep away from heat, sparks and open flame. Avoid spilling. Avoid inhalation of vapors/spray and contact with skin and eyes. Static electricity and formation of sparks must be prevented. Storage tanks and other containers must be grounded.

Advice on general occupational hygiene Good personal hygiene procedures should be implemented. For professional users only. Pregnant or breastfeeding women should not work with this product if there is any risk of exposure.

Conditions for safe storage, including any incompatibilities

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Storage precautions	Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep away from heat, sparks and open flame. Store in a demarcated banded area to prevent release to drains and/or watercourses.
Storage class	Flammable liquid storage.
Specific end uses(s)	
Specific end use(s)	The identified uses for this product are detailed in Section 1.

8. Exposure controls/Personal protection

Control parameters

Occupational exposure limits

Observe any occupational exposure limits for the product or ingredients.

Gasoline

Long-term exposure limit (8-hour TWA): ACGIH 300 ppm

Short-term exposure limit (15-minute): ACGIH 500 ppm

A3

DI-ISOPROPYL ETHER

Long-term exposure limit (8-hour TWA): ACGIH 250 ppm

Short-term exposure limit (15-minute): ACGIH 310 ppm

Long-term exposure limit (8-hour TWA): OSHA 500 ppm 2100 mg/m³

ACGIH = American Conference of Governmental Industrial Hygienists.

A3 = Confirmed Animal Carcinogen with Unknown Relevance to Humans.

OSHA = Occupational Safety and Health Administration.

Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation. This product must not be handled in a confined space without adequate ventilation.

Personal protection

For professional users only.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles. Personal protective equipment for eye and face protection should comply with OSHA 1910.133.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. To protect hands from chemicals, gloves should comply with OSHA 1910.138 and be demonstrated to be impervious to the chemical and resist degradation. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.

Other skin and body protection

Wear suitable protective clothing as protection against splashing or contamination.

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Hygiene measures	Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly with soap and water if skin becomes contaminated. Do not smoke in work area. When using do not eat, drink or smoke. Pregnant or breastfeeding women should not work with this product if there is any risk of exposure.
Respiratory protection	Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. If ventilation is inadequate, suitable respiratory protection must be worn. Half mask and quarter mask respirators with replaceable filter cartridges should comply with OSHA 1910.134. Wear a respirator fitted with the following cartridge: Gas filter, type AX.
Environmental exposure controls	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels. Store in a demarcated bunded area to prevent release to drains and/or watercourses.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Liquid.
Color	Colorless.
Odor	Characteristic.
Odor threshold	Not available.
pH	Not available.
Melting point	<-60°C
Initial boiling point and range	41.5 - 119.7°C (ASTM D86)
Flash point	-60°C Closed cup. (Abel, IP170)
Evaporation rate	Not available.
Evaporation factor	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	Lower flammable/explosive limit: 1.4 % Upper flammable/explosive limit: 7.6 %
Vapor pressure	51.1 kPa @ 37.8°C (ASTM D5191)
Relative density	746 Kg/L @ 15°C (ASTM D4052)
Solubility(ies)	Not available.
Partition coefficient	Not available.
Auto-ignition temperature	Not available.
Decomposition Temperature	Not available.
Viscosity	Kinematic viscosity ≤ 20.5 mm ² /s.
Explosive properties	There are no chemical groups present in the product that are associated with explosive properties.
Oxidizing properties	The product is highly flammable.
Other information	None.

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10. Stability and reactivity

Reactivity	The following materials may react with the product: Strong oxidizing agents.
Stability	Stable at normal ambient temperatures and when used as recommended. Avoid the following conditions: Heat, sparks, flames.
Possibility of hazardous reactions	Will not polymerize.
Conditions to avoid	Avoid heat, flames and other sources of ignition.
Materials to avoid	Strong oxidizing agents.
Hazardous decomposition products	Heating may generate the following products: Oxides of carbon.

11. Toxicological information

Information on toxicological effects

Toxicological effects	Information given is applicable to the major ingredient. Gasoline
<u>Acute toxicity - oral</u>	
Notes (oral LD₅₀)	LD ₅₀ >5000 mg/kg, Oral, Rat (OECD 401) Conclusive data but not sufficient for classification.
<u>Acute toxicity - dermal</u>	
Notes (dermal LD₅₀)	LD ₅₀ >2000 mg/kg, Dermal, Rabbit (OECD 402) Conclusive data but not sufficient for classification.
<u>Acute toxicity - inhalation</u>	
Notes (inhalation LC₅₀)	LC ₅₀ >5610 mg/m ³ , Inhalation, Rat (OECD 403) Conclusive data but not sufficient for classification.
<u>Skin corrosion/irritation</u>	
Animal data	Irritating. (OECD 404)
Extreme pH	Not corrosive to skin. (OECD 404)
<u>Serious eye damage/irritation</u>	
Serious eye damage/irritation	Not irritating. (OECD 405)
<u>Skin sensitization</u>	
Skin sensitization	Buehler test - Guinea pig: Not sensitizing. (OECD 406)
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	Gene mutation:: Negative. (Method equivalent or similar to OECD 471) This substance has no evidence of mutagenic properties.
Genotoxicity - in vivo	Chromosome aberration: Negative. (OECD 475) This substance has no evidence of mutagenic properties. Although the data do not support classification of gasoline per se for genotoxic potential, there is a regulatory requirement to classify as genotoxic gasoline and naphtha streams containing >0.1% benzene
<u>Carcinogenicity</u>	

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Carcinogenicity	NOAEL ~10000 mg/m ³ , Inhalation, Rat (OECD 453) NOAEL 0.05 ml, Dermal, Mouse (OECD 451) The data do not support the classification of gasoline per se for carcinogenic potential, however there is a regulatory requirement to classify as carcinogenic gasoline and naphtha streams containing >0.1% benzene
Target organ for carcinogenicity	Kidneys Liver
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	Two-generation study - NOAEC ≥20000 mg/m ³ , Inhalation, Rat F1 (OECD 416) It should be noted that, although the data do not support classification of gasoline per se for reproductive toxicity potential according to EU regulation (EC no. 1272/2008), there is a regulatory requirement to classify as reprotoxic gasoline and naphtha streams containing >3% toluene and / or n-hexane
Reproductive toxicity - development	Developmental toxicity: - NOAEL: 23900 mg/m ³ , Inhalation, Rat (OECD 414) It should be noted that, although the data do not support classification of gasoline per se for reproductive toxicity potential according to EU regulation (EC no. 1272/2008), there is a regulatory requirement to classify as reprotoxic gasoline and naphtha streams containing >3% toluene and / or n-hexane
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	Based on available data the classification criteria are not met.
<u>Aspiration hazard</u>	
Aspiration hazard	Kinematic viscosity ≤ 20.5 mm ² /s. May be fatal if swallowed and enters airways.
<u>Inhalation</u>	
Inhalation	Vapors in high concentrations are anesthetic. Vapors in high concentrations are narcotic. Symptoms following overexposure may include the following: Headache. Fatigue. Dizziness. Central nervous system depression.
<u>Ingestion</u>	
Ingestion	Harmful: may cause lung damage if swallowed. Pneumonia may be the result if vomited material containing solvents reaches the lungs.
<u>Skin Contact</u>	
Skin Contact	Irritating to skin. Not a skin sensitizer.
<u>Eye contact</u>	
Eye contact	No specific health hazards known.
<u>Route of exposure</u>	
Route of exposure	Inhalation Oral Skin and/or eye contact

12. Ecological information

Ecotoxicity	The product contains substances which are toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment. Information given is applicable to the major ingredient. - Gasoline.
<u>Acute aquatic toxicity</u>	
Acute toxicity - fish	LC ₅₀ , 96 hours: 10 mg/l, Oncorhynchus mykiss (Rainbow trout) (OECD 203)
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 4.5 mg/l, Daphnia magna (OECD 202)
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: 3.1 mg/l, Selenastrum capricornutum (OECD 201)
Acute toxicity - microorganisms	LL ₅₀ , 72 hours: 15.41 mg/l, Tetrahymena pyriformis (QSAR modeled data)

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Acute toxicity - terrestrial	Scientifically unjustified.
<u>Chronic aquatic toxicity</u>	
Chronic toxicity - fish early life stage	Read-across data. (OECD 211) NOELR, 21 days: 2.6 mg/l, Daphnia magna
Chronic toxicity - aquatic invertebrates	Read-across data. (OECD 211) NOELR, 21 days: 2.6 mg/l, Daphnia magna
<u>Persistence and degradability</u>	
Persistence and degradability	Inherently biodegradable.
Phototransformation	No information required.
Stability (hydrolysis)	Scientifically unjustified. The available data and weight of evidence demonstrate that this substance is resistant to hydrolysis because it lacks a functional group that is hydrolytically reactive. Therefore, this fate process will not contribute to a measurable degradable loss of this substance from the environment.
Biodegradation	Inherently biodegradable.
<u>Bioaccumulative potential</u>	
Bio-Accumulative Potential	Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance.
Partition coefficient	Not available.
<u>Mobility in soil</u>	
Adsorption/desorption coefficient	Scientifically unjustified. Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance.
Henry's law constant	Not applicable. Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance.
Surface tension	No information required. Endpoint waived according to REACH Annex VII, IX or XI.

13. Disposal considerations

Waste treatment methods

General information	Waste is classified as hazardous waste. The generation of waste should be minimized or avoided wherever possible. External recovery, treatment, recycling and disposal of waste should comply with all applicable local and/or national regulations.
Disposal methods	Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Dispose of waste via a licensed waste disposal contractor.
Waste class	Waste is classified as hazardous waste.

14. Transport information

UN Number

UN No. (TDG)	1203
UN No. (IMDG)	1203
UN No. (ICAO)	1203
UN No. (DOT)	UN1203

US MX 21 K2**UN proper shipping name**

Proper shipping name (TDG) MOTOR SPIRIT (Gasoline)

Proper shipping name (IMDG) MOTOR SPIRIT (Gasoline)

Proper shipping name (ICAO) MOTOR SPIRIT (Gasoline)

Proper shipping name (DOT) MOTOR SPIRIT (Gasoline)

Transport hazard class(es)

DOT hazard class 3

DOT hazard label 3

TDG class 3

TDG label(s) 3

IMDG Class 3

ICAO class/division 3

DOT transport labels**Packing group**

TDG Packing Group II

IMDG packing group II

ICAO packing group II

DOT packing group II

Special precautions for user

EmS F-E, S-E

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information**US State Regulations**

Pennsylvania "Right To Know" List

Present.

16. Other information

Revision comments New issue in new format Revised classification.

Issued by HCS Group Technical Team

Revision date 3/25/2022

Revision 1

Supersedes date 6/19/2019

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SDS No.	23007
SDS status	Approved.
Hazard statements in full	H225 Highly flammable liquid and vapor. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H336 May cause drowsiness or dizziness. H361d Suspected of damaging the unborn child. H401 Toxic to aquatic life. H411 Toxic to aquatic life with long lasting effects.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.