

SAFETY DATA SHEET

X-10 FUEL CONDITIONER 55gll

Version 1.0

Revision Date 11/21/2014

Print Date 06/09/2015

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : X-10 FUEL CONDITIONER 55gll

Material number : FU03D5

Manufacturer or supplier's details

Company : K-Chem, Inc.

Address : P. O. Box 530632
Birmingham, AL 35253

Telephone : 205-592-0844

Emergency telephone numbers

For a Transportation Emergency : CHEMTEL: 800-255-3924 - All Calls Recorded.

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	liquid
Colour	clear, red
Odour	characteristic

GHS Classification

Flammable liquids : Category 3

Skin irritation : Category 2

Serious eye damage : Category 1

Specific target organ toxicity - single exposure : Category 2

Specific target organ toxicity - repeated exposure : Category 2

Aspiration hazard : Category 1

GHS Label element

Hazard pictograms :



Signal word : Danger

Hazard statements : H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H371 May cause damage to organs.
H373 May cause damage to organs through prolonged or

SAFETY DATA SHEET

X-10 FUEL CONDITIONER 55gll

Version 1.0

Revision Date 11/21/2014

Print Date 06/09/2015

repeated exposure.

Precautionary statements

: **Prevention:**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P280 Wear protective gloves/ eye protection/ face protection.

Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.

P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P305 + P351 + P338 + P310 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 CENTER or doctor/ physician.

P309 + P311 IF exposed or you feel unwell: Call a POISON CENTER or doctor/ physician.

P314 Get medical advice/ attention if you feel unwell.

P331 Do NOT induce vomiting.

P332 + P313 If skin irritation occurs: Get medical advice/ attention.

P362 Take off contaminated clothing and wash before reuse.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage:

P403 + P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

Disposal:

P501 Dispose of contents/container in accordance with local regulation.

Potential Health Effects

Carcinogenicity:

IARC

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH

Confirmed animal carcinogen with unknown relevance to humans

OSHA

cyclohexanone 108-94-1
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

SAFETY DATA SHEET

X-10 FUEL CONDITIONER 55gII

Version 1.0

Revision Date 11/21/2014

Print Date 06/09/2015

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical Name	CAS-No.	Concentration [%]
Distillates (petroleum), hydrotreated light naphthenic	64742-53-6	>= 70 -< 90
butan-2-ol	78-92-2	>= 10 -< 20
cresol	1319-77-3	>= 1 -< 5
cyclohexanone	108-94-1	>= 1 -< 5

SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
Symptoms of poisoning may appear several hours later.
Do not leave the victim unattended.
- If inhaled : Consult a physician after significant exposure.
If unconscious place in recovery position and seek medical advice.
- In case of skin contact : If skin irritation persists, call a physician.
If on skin, rinse well with water.
If on clothes, remove clothes.
- In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Continue rinsing eyes during transport to hospital.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear.
Do NOT induce vomiting.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Unsuitable extinguishing media : High volume water jet

SAFETY DATA SHEET

X-10 FUEL CONDITIONER 55gII

Version 1.0

Revision Date 11/21/2014

Print Date 06/09/2015

Hazardous combustion products	: Carbon dioxide (CO ₂) Carbon monoxide Smoke
Specific extinguishing methods	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Further information	: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be stored separately in closed containments. Use a water spray to cool fully closed containers.
Special protective equipment for firefighters	: Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	: Use personal protective equipment. Ensure adequate ventilation. Refer to protective measures listed in sections 7 and 8.
Environmental precautions	: Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	: Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling	: Avoid formation of aerosol. Do not breathe vapours/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/or exhaust in work rooms. Container may be opened only under exhaust ventilation hood. To avoid spills during handling keep bottle on a metal tray. Dispose of rinse water in accordance with local and national regulations.
Conditions for safe storage	: No smoking. Keep container tightly closed in a dry and well-ventilated place.

SAFETY DATA SHEET

X-10 FUEL CONDITIONER 55gll

Version 1.0

Revision Date 11/21/2014

Print Date 06/09/2015

Observe label precautions.
Electrical installations / working materials must comply with the technological safety standards.

Materials to avoid : Oxidizing agents
Do not freeze.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
butan-2-ol	78-92-2	TWA	100 ppm	ACGIH
		TWA	100 ppm 305 mg/m3	NIOSH REL
		ST	150 ppm 455 mg/m3	NIOSH REL
		TWA	150 ppm 450 mg/m3	OSHA Z-1
		TWA	100 ppm 305 mg/m3	OSHA P0
cresol	1319-77-3	TWA	5 ppm 22 mg/m3	OSHA Z-1
cyclohexanone	108-94-1	TWA	20 ppm	ACGIH
		STEL	50 ppm	ACGIH
		TWA	25 ppm 100 mg/m3	NIOSH REL
		TWA	50 ppm 200 mg/m3	OSHA Z-1
		TWA	25 ppm 100 mg/m3	OSHA P0

Biological occupational exposure limits

Component	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
CYCLOHEXANONE	108-94-1	1,2-Cyclohexanediol	Urine	End of shift at end of workweek	80 mg/l	ACGIH BEI
CYCLOHEXANONE		Cyclohexanol	Urine	End of shift (As soon as possible after exposure ceases)	8 mg/l	ACGIH BEI

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required.

SAFETY DATA SHEET

X-10 FUEL CONDITIONER 55gII

Version 1.0

Revision Date 11/21/2014

Print Date 06/09/2015

In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection
Remarks

: Skin should be washed after contact. For prolonged or repeated contact use protective gloves. The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection

: Eye wash bottle with pure water
Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection

: impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures

: When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : clear, red

Odour : characteristic

Odour Threshold : no data available

pH : no data available

Melting point/freezing point : no data available

Boiling point : 120 °C

Flash point : 23.3 °C
Method: TCC

Evaporation rate : 2

Upper explosion limit : no data available

Lower explosion limit : no data available

Vapour pressure : 200 hPa

Relative vapour density : no data available

Density : 0.89 g/cm³

Solubility(ies)

Water solubility : negligible

Solubility in other solvents : not determined

SAFETY DATA SHEET

X-10 FUEL CONDITIONER 55gII

Version 1.0

Revision Date 11/21/2014

Print Date 06/09/2015

Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: not determined
Thermal decomposition	: no data available
Viscosity	
Viscosity, kinematic	: no data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Stable No decomposition if stored and applied as directed.
Chemical stability	: Stable under normal conditions. No decomposition if stored and applied as directed.
Possibility of hazardous reactions	: No hazards to be specially mentioned. No decomposition if stored and applied as directed. Vapours may form explosive mixture with air.
Conditions to avoid	: Heat, flames and sparks. Heat, flames and sparks.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity	: Acute toxicity estimate : 2,869 mg/kg Method: Calculation method
Acute inhalation toxicity	: Acute toxicity estimate : > 40 mg/l Exposure time: 4 h Test atmosphere: vapour Method: Calculation method
Acute dermal toxicity	: Acute toxicity estimate : > 5,000 mg/kg Method: Calculation method

Components:

SAFETY DATA SHEET

X-10 FUEL CONDITIONER 55gll

Version 1.0

Revision Date 11/21/2014

Print Date 06/09/2015

butan-2-ol:

Acute oral toxicity : LD50 Oral rat: 2,193 mg/kg

Acute dermal toxicity : LD50 Dermal rat: > 2,000 mg/kg

Skin corrosion/irritation

Product:

Remarks: Extremely corrosive and destructive to tissue.

Serious eye damage/eye irritation

Product:

Remarks: May cause irreversible eye damage.

Respiratory or skin sensitisation

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

no data available

Reproductive toxicity

no data available

**Distillates (petroleum), hydrotreated light
naphthenic: butan-2-ol:
cresol:
cyclohexanone:**

STOT - single exposure

no data available

STOT - repeated exposure

no data available

Aspiration toxicity

no data available

Further information

Product:

Remarks: no data available

Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting., Concentrations substantially above the TLV value may cause narcotic effects., Solvents may degrease the skin.

SAFETY DATA SHEET

X-10 FUEL CONDITIONER 55gll

Version 1.0

Revision Date 11/21/2014

Print Date 06/09/2015

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

no data available

Persistence and degradability

no data available

Bioaccumulative potential

Product:

Partition coefficient: n-octanol/water : Remarks: no data available

Components:

butan-2-ol :

Partition coefficient: n-octanol/water : log Pow: 0.146

cyclohexanone :

Partition coefficient: n-octanol/water : log Pow: 0.81

Mobility in soil

no data available

Other adverse effects

no data available

Product:

Regulation

40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information

: no data available

no data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues

: Dispose of in accordance with local regulations.

Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.

Contaminated packaging

: Empty remaining contents.
Dispose of as unused product.

SAFETY DATA SHEET

X-10 FUEL CONDITIONER 55gll

Version 1.0

Revision Date 11/21/2014

Print Date 06/09/2015

Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

International regulation

IATA-DGR

UN/ID No. : 1993
Proper shipping name : Flammable liquid, n.o.s.
(Distillates (petroleum), hydrotreated light naphthenic)
Class : 3
Packing group : III
Labels : 3
Packing instruction (cargo aircraft) : 366
Packing instruction (passenger aircraft) : 355

IMDG-Code

UN number : 1993
Proper shipping name : FLAMMABLE LIQUID, N.O.S.
(Distillates (petroleum), hydrotreated light naphthenic)
Class : 3
Packing group : III
Labels : 3
EmS Code : F-E, S-E
Marine pollutant : no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations

49 CFR

UN/ID/NA number : 1993
Proper shipping name : Flammable liquids, n.o.s.
(Distillates (petroleum), hydrotreated light naphthenic)
Class : 3
Packing group : III
Labels : 3
ERG Code : 128
Marine pollutant : no

Special precautions for user not applicable

SAFETY DATA SHEET

X-10 FUEL CONDITIONER 55gll

Version 1.0

Revision Date 11/21/2014

Print Date 06/09/2015

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
cresol	1319-77-3	100	4207

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Fire Hazard
Acute Health Hazard

SARA 302 : SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:
butan-2-ol 78-92-2 19.532 %

California Prop 65 This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

TSCA On TSCA Inventory
DSL All components of this product are on the Canadian DSL.
AICS On the inventory, or in compliance with the inventory
NZIoC On the inventory, or in compliance with the inventory
PICCS On the inventory, or in compliance with the inventory
IECSC On the inventory, or in compliance with the inventory

Inventory Acronym and Validity Area Legend:

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECl (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

SECTION 16. OTHER INFORMATION

SAFETY DATA SHEET

X-10 FUEL CONDITIONER 55gII

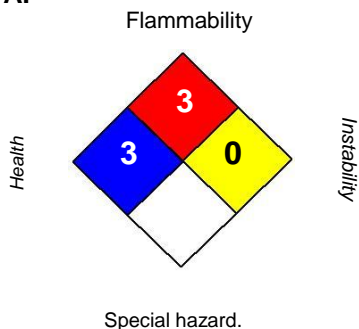
Version 1.0

Revision Date 11/21/2014

Print Date 06/09/2015

Further information

NFPA:



HMIS III:

HEALTH	3*
FLAMMABILITY	3
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

OSHA GHS Label Information:

Hazard pictograms :



Signal word :

Danger:

Hazard statements :

Flammable liquid and vapour. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye damage. May cause damage to organs through prolonged or repeated exposure.

Precautionary statements :

Prevention: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ ventilating/ lighting/ equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/ eye protection/ face protection.

Response: IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician. IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. 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 CENTER or doctor/ physician. IF exposed or you feel unwell: Call a POISON CENTER or doctor/ physician. Get medical advice/ attention if you feel unwell. Do NOT induce vomiting. If skin irritation occurs: Get medical advice/ attention. Take off contaminated clothing and wash before reuse. In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage: Store in a well-ventilated place. Keep cool. Store locked up.

Disposal: Dispose of contents/container in accordance with local regulation.

We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. Users should make their own investigations to determine the suitability and applicability of the information for their particular purposes. This SDS has been prepared by the Compliance Services organization supporting this manufacturer, supplier or distributor.

SAFETY DATA SHEET

X-10 FUEL CONDITIONER 55gll

Version 1.0

Revision Date 11/21/2014

Print Date 06/09/2015