

SAFETY DATA SHEET



SECTION 1: IDENTIFICATION

1.1. Company Information	KALO, Inc., 13200 Metcalf Ave., Ste. 250, Overland Park, KS 66213
1.2. Phone Numbers	800-255-5196 / 913-491-9146 FAX
1.3. Website	www.kalo.com
1.4. Product Identity	FRACTION
1.5. Reference/Item Number	FRA24
1.6. Intended Use	Refer to package label.
1.7. Application Method	Refer to package label.
1.8. 24 HOUR EMERGENCY NUMBER/CHEMTREC (USA)	1-800-424-9300
1.9. POISON CONTROL CENTER (USA)	1-800-222-1212

SECTION 2: HAZARDS IDENTIFICATION

2.1. HAZARD COMMUNICATION STANDARD (HCS) PICTOGRAM(S) AND SIGNAL WORD(S)



WARNING

2.2. Eye Irrit. 2A:	H319: Causes serious eye irritation.
2.3. Skin Irrit. 3:	H316: Causes mild skin irritation.
2.4. Acute Tox (oral) 4:	H303: May be harmful if swallowed.
2.5. Acute Tox (dermal) 5:	H313: May be harmful in contact with skin.
2.6. Prevention:	P280: Wear protective gloves and eye/face protection. P264: Wash hands, face and other affected areas thoroughly after handling. P270: Do not eat, drink or smoke when using this product.
2.7. Response:	P312: Call a poison center or doctor/physician if you feel unwell. P305+351+338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do; continue rinsing. P337+313: If eye irritation persists, get medical advice/attention. P301+312: IF SWALLOWED: Call a poison center or doctor/physician if you feel unwell. P332+313: IF ON SKIN: If skin irritation occurs, get medical advice/attention.
2.8. Storage:	No GHS storage statements.
2.9. Disposal:	P501: Dispose of contents/container in accordance with local/national regulations.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

This product is labeled with the following GHS classifications, as it contains substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations. This product is a proprietary blend and the ingredients and mixture percentages are being withheld as a trade secret.

3.1. Ingredient/Chemical Designations:	Ammonium sulfate, 2-hydroxy-1,2,3-propanetricarboxylic acid
3.2. CAS No.:	Mixture
3.3. Weight %:	98.99%
3.4. Notes:	Substance classified with a health or environmental hazard.
3.5. Ingredient/Chemical Designations:	Constituents ineffective as spray adjuvants
3.6. CAS No.:	Proprietary
3.7. Weight %:	1.01%
3.8. Notes:	Substance classified with a health or environmental hazard.

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SECTION 4: FIRST AID MEASURES

	[DESCRIPTIONS]
4.1. General:	In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
4.2. Inhalation:	Remove to fresh air. Keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious, place in the recovery position and obtain immediate medical attention. Give nothing by mouth.
4.3. Eyes:	Irrigate copiously with clean fresh water for at least 10 minutes, holding the eyelids apart and seek medical attention.
4.4. Skin:	Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser. Do NOT use solvents or thinners.
4.5. Ingestion:	If accidentally swallowed, obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.
[MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED]	
4.6. Overview:	No adverse symptoms or effects anticipated under normal handling conditions. See Section 2 for further details.
4.7. Eyes:	Causes serious eye irritation.
4.8. Skin:	Causes mild skin irritation. May be harmful in contact with skin.
4.9. Ingestion:	May be harmful if swallowed.

SECTION 5: FIREFIGHTING MEASURES

5.1. General Hazard:	Toxic fumes may be emitted in a fire situation.
5.2. Extinguishing Media:	Foam, dry chemical, carbon dioxide, water spray or fog.
5.3. Hazardous Combustion Products:	Normal combustion forms carbon dioxide, water vapor and may produce oxides of carbon, nitrogen and phosphorous.
5.4. Explosion Hazards:	Dust suspended in air may create a potentially explosive environment.
5.5. Fire Fighting Procedures:	Evacuate area and fight fire upwind a safe distance to avoid hazardous vapors and decomposition products. Fire exposed containers can build up pressure and should be kept cool with water spray if possible. Explosive vapor could form from ruptured containers. Dike and collect water used to fight fire to prevent environmental damage due to runoff. Foam or dry chemical fire extinguishing systems are preferred to prevent environmental damage from excessive water runoff.
5.6. Fire Fighting Equipment:	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH approved or equivalent, and full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Precautions/Procedures:	Keep all sources of ignition away from spill/release. In case of a major spill or spillage in a confined space evacuate the area and check vapor levels.
6.2. Environmental Precautions:	Do not allow spills to enter drains or water courses.
6.3. Methods and Material For Containment and Cleaning Up:	Ventilate the area and avoid breathing vapors. Take the personal protective measures listed in Section 8. Contain and absorb spillage with non-combustible materials (e.g. sand/earth/vermiculite). Place in closed containers outside buildings and dispose of according to the Waste Regulations (see Section 13). Clean, preferably with a detergent. Do not use solvents. Do not allow spills to enter drains or water courses. If drains, sewers, streams or lakes are contaminated, inform the local water company immediately. In the case of contamination of rivers, streams, or lakes, the Environmental Protection Agency should also be informed.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions For Safe Handling:	Do not get in eyes, on skin, or on clothing. Do not breathe vapors or mists. Keep bag closed. Use only with adequate ventilation. Use good personal hygiene practices. Wash hands before eating, drinking, smoking. Remove contaminated clothing and wash before reuse. Destroy contaminated belts and shoes and other items that cannot be decontaminated. Have eyewash accessible to use in handling area. See Section 2 for further details.
7.2. Conditions For Safe Storage:	Store in tightly closed bags in dry, well-ventilated area, away from excessive heat and incompatibles. Do not allow water or other chemicals to be introduced into contents of bag. Do not store near feed or food products. Do not use or store near open flame or incompatible materials. See Section 2 for further details.
7.3. Incompatible Materials:	Oxidizing agents, bases, chlorates, nitrates.
7.4. Specific End Use(s):	See product label.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Exposure Data:	This product contains no ingredients (at greater than 0.1%) with established limits for exposure under OSHA, ACGIH and/or NIOSH.
[EXPOSURE CONTROLS]	
8.2. Respiratory:	If workers are exposed to concentrations above the exposure limit, they must use the appropriate certified respirators.
8.3. Eyes:	Wear safety eyewear (e.g. safety spectacles/goggles/visors) to protect against the splash of liquids.
8.4. Skin:	Overalls, which cover the body, arms, and legs, should be worn. Skin should not be exposed. All parts of the body should be washed after contact.
8.5. Engineering Controls:	Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates, and any vapor below occupational exposure limits, suitable respiratory protection must be worn.
8.6. Other Work Practices:	See product label.
8.7. Comments:	Nuisance Dust TLV (units): 15mg/m ³

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Free Flowing Light Blue Granule	Initial Boiling Point/Range:	Not Measured
Odor:	Slight Chemical	Melting Point/Range:	Not Measured
Odor Threshold:	Not Measured	Flammability (Solid, Gas):	Not Applicable
pH:	Not Determined	Upper Flammability/Explosive Limits:	Not Measured
Specific Gravity:	Not Applicable	Lower Flammability/Explosive Limits:	Not Measured
Flashpoint and Method:	Difficult To Burn	Decomposition Temperature:	Not Measured
Solubility in Water:	Complete	Auto-Ignition Temperature:	Not Measured
Viscosity (dynamic):	Not Measured	Volatility:	Not Measured
Viscosity (kinematic):	Not Measured	Molecular Weight:	Not Measured
VOC%:	Not Measured	Oxidizing Properties:	Not Measured
Vapor Pressure (Pa):	Not Measured	Partition Co-Efficient n-octanol/water (Log Pow):	Not Measured
Vapor Density (air=1):	Not Measured	Evaporation Rate (Butyl Acetate=1):	Not Measured
Density (water=1):	Not Measured	Surface Tension:	Not Measured
Density:	63.5 lbs/ft ³	Particle Size:	Not Measured
Freezing Point:	Not Measured	Other:	No other relevant information.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity:	Not chemically reactive.
10.2. Chemical Stability:	Stable under normal ambient and anticipated conditions of use.
10.3. Hazardous Polymerization:	Hazardous reactions not anticipated.
10.4. Conditions To Avoid:	Heat, open flame, sparks and static electricity.
10.5. Incompatible Materials:	Strong oxidizers, bases, chlorates, and nitrates.
10.6. Hazardous Decomposition Products:	Temperatures above 282°C causes a release of ammonia and sulfur trioxide.

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SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY ESTIMATE

11.1. Ingredients:	Ammonium sulfate, 2-hydroxy-1,2,3-propanetricarboxylic acid
11.2. Oral, LD50mg/kg:	Not Established
11.3. Skin, LD50mg/kg:	Not Established
11.4. Inhalation Vapor, LC50, mg/L/4hr:	Not Established
11.5. Inhalation Dust/Mist, LC50, mg/L/4hr:	Not Established
11.6. Inhalation Gas, LC50, ppm	Not Established

Carcinogen Data: This product contains no ingredients (at greater than 0.1%) that are suspected of being or known to be a carcinogen under OSHA, NTP or IARC.

ITEM	HAZARD	CATEGORY
Acute Toxicity (mouth):	May be harmful if swallowed.	4
Acute Toxicity (skin):	May be harmful in contact with skin.	5
Acute Toxicity (inhalation):	Not Applicable	--
Skin Corrosion/Irritation:	Causes mild skin irritation.	3
Eye Damage/Irritation:	Causes serious eye irritation.	2A
Sensitization (respiratory):	Not Applicable	--
Sensitization (skin):	Not Applicable	--
Germ Toxicity:	Not Applicable	--
Carcinogenicity:	Not Applicable	--
Reproductive Toxicity:	Not Applicable	--
Specific Target Organ Systemic Toxicity-Single Exposure:	Not Applicable	--
Specific Target Organ Systemic Toxicity-Repeated Exposure:	Not Applicable	--
Aspiration Hazard:	Not Applicable	--

SECTION 12: ECOLOGICAL INFORMATION

12.1. Ecotoxicity:	No additional information provided for this product. This product is not for use in aquatic settings.
12.2. Persistence and Degradability:	There is no data available on the preparation itself.
12.3. Bioaccumulative Potential:	Not measured.
12.4. Mobility In Soil:	No data available.
12.5. Results of PBT and vPvB Assess:	This product contains no PBT/vPvB chemicals.
12.6. Other Adverse Effects:	No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste Treatment Methods:	Do not allow into drains or water courses. Wastes and emptied containers should be disposed of in accordance with regulations made under the Control of Pollution Act and the Environmental Protection Act. Using information provided in this data sheet advice should be obtained from the Waste Regulation Authority, whether the special waste regulations apply. Dispose of contents in accordance with local and national regulations.
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SECTION 14: TRANSPORT INFORMATION

14.1. DOT Proper Shipping Name:	Not Regulated
14.2. DOT Hazard Class:	Not Applicable
14.3. DOT Packing Group:	Not Applicable
14.4. DOT Label:	None
14.5. IMDG Proper Shipping Name:	Not Regulated
14.6. IMDG Hazard Class:	Not Applicable
14.7. IMDG Packing Group:	Not Applicable
14.8. IMDG Marine Pollutant:	No
14.9. ICAO/IATA:	See Bill of Lading

SECTION 15: REGULATORY INFORMATION

15.1. Regulatory Overview:	The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.
15.2. Toxic Substance Control Act (TSCA):	All ingredients of this product are listed on the TSCA inventory, or are not required to be listed on the TSCA inventory.
15.3. WHMIS Classification:	D2B Fire=NQ Sudden Release of Pressure=NQ Reactive=NQ Immediate (acute)=YES Delayed (chronic)=NQ
15.4. U.S. EPA Tier II Hazards:	
15.5. EPCRA 302–Extremely Hazardous (0.1%):	To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.
15.6. EPCRA 311/304–Chemicals and RQs (>0.1%):	Acrylamide (impurity) <0.1%
15.7. EPCRA 313–Toxic Chemicals (>0.1%):	Sulfuric acid diammonium <100
15.8. Proposition 65–Carcinogens (>0.0%):	To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.
15.9. Proposition 65–Developmental Toxins (>0.0%):	To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.
15.10. Proposition 65–Female Repro Toxins (>0.0%):	To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.
15.11. Proposition 65–Male Repro Toxins (>0.0%):	To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.
15.12. N.J. RTK Substances (>1%):	To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.
15.13. PENN RTK Substances (>1%):	To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

SECTION 16: OTHER INFORMATION

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. Company accepts no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations and orders.