SAFETY DATA SHEET

I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

IDEAS ADDITIVES LLC
625 SOUTH MAIN STREET
LOMBARD, ILLINOIS 60148

I. PHYSICAL DATA

PRODUCT NAME: **IZ-352**
CHEMICAL NAME: Caustic Soda 50% Liquid

FORMULA: Trade Secret

INFORMATION PHONE: 1-800-274-2010
EMERGENCY PHONE: 1-800-424-9300

II. HAZARDOUS IDENTIFICATION

NFPA RATING (SCALE 0-4) Health = 3 Flammability = 0 Reactivity = 1

EMERGENCY OVERVIEW: Do not ingest. Do not inhale dust. Use adequate ventilation and wash after handling.

GHS CLASSIFICATION:

Health	**Environmental**
Acute Toxicity: Cat. 3 Eye Irritation: Cat. 1 Skin Irritation: Cat. 1	Acute Aquatic Toxicity: Not established Chronic Aquatic Toxicity: Not established

GHS LABEL ELEMENTS:
Symbol(s):



Signal Word

Danger

Hazard Statements

Harmful if swallowed. Toxic in contact with skin. May cause respiratory irritation. Causes severe skin burns and eye damage.

Precautionary Statements

Wear protective gloves/protective clothing/eye protection/face protection IF ON SKIN: Wash with plenty of soap and water. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or you feel unwell: Call a doctor/physician.

III. COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENT: Trade Secret
CAS NUMBER:

Sodium hydroxide	1310-73-2	50-75%

IV. FIRST AID MEASURES

EYE CONTACT: Wash eyes with water for at least 30 minutes. If irritation persists, get medical attention.
SKIN CONTACT: Wash affected area with soap and water for approximately 30 minutes
INHALATION: Remove exposed person to fresh air.
INGESTION: Do not induce vomiting. Get immediate medical attention.

V. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Use carbon dioxide, foam, sand or sodium bicarbonate.

SPECIAL FIRE FIGHTING PROCEDURES: Avoid breathing vapors or dusts. Use self-contained breathing apparatus with full face piece and protective clothing.

UNUSUAL FIRE AND EXPLOSIVE HAZARDS: None known.

VI. ACCIDENTAL RELEASE MEASURES

IF MATERIAL IS RELEASED OR SPILLED: Contain spill and transfer to suitable containers.

Stop leak if you can do it without risk.
Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. If material is too viscous for pumping scrape it up with shovels into suitable containers for recycle or disposal.
Large Spills: Dike far ahead of spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

VII. HANDLING AND STORAGE

HANDLING: Wash thoroughly after handling.

STORAGE: Observe all federal, state and local regulations when storing or disposing of this substance. Keep away from incompatible substances.

Use good engineering practices to establish good ventilation. Avoid contact with skin, eyes and clothing. Wear suitable protective equipment to protect from contact. Avoid breathing mist or vapors. Wash skin thoroughly after handling. Store inn closed containers away from extreme heat, sparks, open flame or oxidizing materials.

VIII. EXPOSURE CONTROLS/ PERSONAL PROTECTION

EXPOSURE GUIDELINES:

Chemical Name	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL-CEILING
Sodium Hydroxide	N.D.	2 mg/m3	N.D.	2 mg/m3

SKIN PROTECTION: Wear appropriate protective gloves to prevent direct contact.

EYE PROTECTION: Wear safety goggles to prevent eye contact with substance.

RESPIRATORY PROTECTION: Under certain circumstances where airborne concentration are expected to exceed exposure limits, select a NIOSH/MSHA approved respirator based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industrial recommendations.

OTHER PROTECTIVE EQUIPMENT: Impervious apron if needed to avoid prolonged or repeated skin contact.

ENGINEERING CONTROLS: Good general ventilation and/or local exhaust ventilation at the point of generation is recommended.

PERSONAL PROTECTIVE EQUIPMENT (Pictograms):



IX. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: 230-288°F
SOLUBILITY IN WATER: Soluble
SPECIFIC GRAVITY: 1.529
APPEARANCE: Liquid
ODOR: Typical
VAPOR DENSITY: Heavier than air
FLASH POINT: >200°F
FLAMMABLE LIMITS **LOWER:** N/A **UPPER:** N/A

X. STABILITY AND REACTIVITY

STABILITY: This product is stable at ambient temperatures.
CONDITIONS TO AVOID: Extreme heat or cold.
INCOMPATIBILITY: Avoid contact with strong acids and strong oxidizers.
HAZARDOUS DECOMPOSITION PRODUCTS: Exposure to high temperatures, such as those associated with fires causes product decomposition, resulting in the release of carbon monoxide, carbon dioxide, and other decomposition products.

HAZARDOUS POLYMERIZATION: Will not occur.

XI. TOXICOLOGY INFORMATION

POTENTIAL ACUTE HEALTH EFFECTS:

Eye: Corrosive. Can cause eye burns and permanent tissue damage. Contact can cause possible blindness.

Skin: Corrosive, causes burns and permanent skin damage (scarring). Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis.

Ingestion: Corrosive and may cause severe and permanent damage to mouth, throat, and stomach.

Inhalation: Inhalation of vapors or mist may be irritating to respiratory passages. Target Organ for mineral oil mist is lungs. Prolonged exposure may result in dizziness and nausea.

Acute Toxicity Value:

Cas. No.	Name	Oral LD50, mg/kg	Dermal LD50, mg/kg	Vapor LC50, mg/L
1310-73-2	Sodium Hydroxide	N.D.	>500	N.D

POTENTIAL CHRONIC HEALTH EFFECTS:

Chronic effects: No known significant effects or critical hazards.

Target organs: No known significant effects or critical hazards.

Carcinogenicity: No known significant effects or critical hazards.

Mutagenicity: No known significant effects or critical hazards.

Teratogenicity: No known significant effects or critical hazards.

Fertility effects: No known significant effects or critical hazards.

Developmental effects: No known significant effects or critical hazards.

XII. ECOLOGICAL INFORMATION

No information available.

XIII. DISPOSAL INFORMATION

WASTE DISPOSAL: Treatment, storage, transportation, and disposal must be in accordance with applicable federal, state and local regulations.

XIV. TRANSPORTATION INFORMATION

DOT CLASSIFICATION

Proper Shipping Name: Sodium Hydroxide solution

Class: 8

UN Number: UN 1824
PG: II

XV. REGULATORY INFORMATION

STATUS:
US (TSCA): Y
CANADA (DSL): Y
EUROPE (EINECS/ELINCS): Y
AUSTRALIA (AICS): Y
CHINA (IESCS): Y
JAPAN (ENCS): Y
SOUTH KOREA (KECI): Y

Y= All ingredients are on the inventory or exempt from listing
N= One or more non-exempt ingredients are not on the inventory

SECTION 302 EXTREMELY HAZARDOUS CHEMICALS:

Component	CAS#	% by Wt.
None		

SECTION 311/312 HAZARDOUS CHEMICALS:

Component	CAS#	% by Wt.
None		

SECTION 313 TOXIC CHEMICALS:

Component	CAS#	% by Wt.
None		

SARA TITLE III:
ACUTE (IMMEDIATE HEALTH HAZARD): Yes
CHRONIC (DELAYED HEALTH HAZARD): No
SUDDEN PRESSURE RELEASE: No
FIRE HAZARD: No
REACTIVE HAZARD: Yes

CERCLA (Comprehensive Environment Response, Compensation and Liability Act):

There is no calculable reportable quantity (RQ) for this product. This product has been reviewed according to the EPA Hazard Categories promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986.

U.S. STATE REGULATIONS:

NEW JERSEY RIGHT-TO-KNOW:
No NJ Right-To-Know components exist in this product.

PENNSYLVANIA RIGHT-TO-KNOW:
No PA Right-To-Know components exist in this product.

CALIFORNIA PROPOSITION 65 CARCINOGENS:
No CA Proposition 65 Carcinogens exist in this product.
CALIFORNIA PROPOSITION 65 REPRODUCTIVE TOXINS:
No CA Proposition 65 Reproductive Toxins exist in this product.

CLEAN WATER ACT: Under section 311 (b) (4) of this act, contamination of surface waters by petroleum products must be reported immediately to the National Response Center.

XVI. OTHER INFORMATION

TSCA (TOXIC SUBSTANCE CONTROL ACT) STATUS:
All components of this formula are included in the TSCA inventory. This product does not contain nor was manufactured with Class 1 or 11 ozone depleting chemicals, Section 611 of the Clean Air Act.

NFPA

HEALTH HAZARD
4-Deadly
3- Extreme Danger
2- Hazardous
1-Slightly Hazardous chemical change
0-Normal Material heated

FIRE HAZARD
Flash Points
4-Below 73°F
3-Below 100°F
2-Above 100°F, Not exceeding 200°F
1-Above 200°F
0-Will not burn

REACTIVITY
4-May detonate
3-Shock and heat may detonate
2-Violent
1-Unstable if
0-Stable

Table 3.8 Acute Toxicity

Acute toxicity	Cat. 1	Cat. 2	Cat. 3	Cat. 4	Category 5
Oral (mg/kg)	≤ 5	> 5 ≤ 50	> 50 ≤ 300	> 300 ≤ 2000	Criteria:
Dermal (mg/kg)	≤ 50	> 50 ≤ 200	> 200 ≤ 1000	> 1000 ≤ 2000	▪ Anticipated oral LD50 between

Gases (ppm)	≤ 100	> 100 ≤ 500	> 500 ≤ 2500	> 2500 ≤ 5000	
Vapors (mg/l)	≤ 0.5	> 0.5 ≤ 2.0	> 2.0 ≤ 10	> 10 ≤ 20	
Dust & mists (mg/l)	≤ 0.05	> 0.05 ≤ 0.5	> 0.5 ≤ 1.0	> 1.0 ≤ 5	2000 and 5000 mg/kg; ▪ Indication of significant effect in humans;* ▪ Any mortality at class 4;* ▪ Significant clinical signs at class

Figure 4.11

ACUTE ORAL TOXICITY - Annex 1					
	Category 1	**Category 2**	**Category 3**	**Category 4**	**Category 5**
LD_{50}	£ 5 mg/kg	> 5 < 50 mg/kg	³ 50 < 300 mg/kg	³ 300 < 2000 mg/kg	³ 2000 < 5000 mg/kg
Pictogram					No symbol
Signal word	Danger	Danger	Danger	Warning	Warning
Hazard statement	Fatal if swallowed	Fatal if swallowed	Toxic if swallowed	Harmful if swallowed	May be harmful if swallowed

Table 3.9 Skin Corrosion/Irritation

Skin Corrosion Category 1			**Skin Irritation Category 2**	**Mild Skin Irritation Category 3**
Destruction of dermal tissue: visible necrosis in at least one animal			Reversible adverse effects in dermal tissue Draize score: ≥ 2.3 < 4.0 or persistent inflammation	Reversible adverse effects in dermal tissue Draize score: ≥ 1.5 < 2.3
Subcategory 1A Exposure < 3 min. Observation < 1hr,	Subcategory 1B Exposure < 1hr. Observation < 14 days	Subcategory 1C Exposure < 4 hrs. Observation < 14 days		

Table 3.10 Eye Effects

Category 1 Serious eye damage	**Category 2 Eye Irritation**	
Irreversible damage 21 days after exposure Draize score: Corneal opacity ≥ 3 Iritis > 1.5	Reversible adverse effects on cornea, iris, conjunctiva Draize score: Corneal opacity ≥ 1 Iritis > 1 Redness ≥ 2 Chemosis ≥ 2	
	Irritant Subcategory 2A Reversible in 21 days	**Mild Irritant** Subcategory 2B Reversible in 7 days

Figure 4.9

GHS Pictograms and Hazard Classes		
		
▪ Oxidizers	▪ Flammables ▪ Self Reactives ▪ Pyrophorics ▪ Self-Heating ▪ Emits Flammable Gas ▪ Organic Peroxides	▪ Explosives ▪ Self Reactives ▪ Organic Peroxides
		
▪ Acute toxicity (severe)	▪ Corrosives	▪ Gases Under Pressure
		
▪ Carcinogen ▪ Respiratory Sensitizer ▪ Reproductive Toxicity ▪ Target Organ Toxicity ▪ Mutagenicity ▪ Aspiration Toxicity	▪ Environmental Toxicity	▪ Irritant ▪ Dermal Sensitizer ▪ Acute toxicity (harmful) ▪ Narcotic Effects ▪ Respiratory Tract ▪ Irritation

Figure 4.10

Transport "Pictograms"		
		
Flammable Liquid Flammable Gas Flammable Aerosol	**Flammable solid Self-Reactive Substances**	**Pyrophorics (Spontaneously Combustible) Self- Heating Substances**

		
Substances, which in contact with water, emit flammable gases (Dangerous When Wet)	**Oxidizing Gases Oxidizing Liquids Oxidizing Solids**	**Explosive Divisions 1.1, 1.2, 1.3**
		
Explosive Division 1.4	**Explosive Division 1.5**	**Explosive Division 1.6**
		
Compressed Gases	**Acute Toxicity (Poison): Oral, Dermal, Inhalation**	**Corrosive**
		
Marine Pollutant	**Organic Peroxides**	

The information appearing in this document is based upon data obtained from raw material manufacturers and/or recognized technical sources. While this information is believed to be correct, IDEAS ADDITIVES LLC makes no representations as to its accuracy or sufficiency, usage or the hazards connected with the use of this material. Since this product may be applied under conditions unfamiliar to us or beyond our control, we claim no responsibility for the results of its use, and users are responsible for the verification of this information under their own operating conditions to determine whether the product is suitable for their particular purposes, and these users assume all risks of their use, handling, and disposal of the product. This information relates only to the product designated above and does not relate to its use in combination with any other process.