



# Material Safety Data Sheet

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## 1. PRODUCT AND COMPANY IDENTIFICATION

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### XP-3636 OPTO DEVELOPER

Revision date: 07/17/2003

**Supplier** Shiple Company  
455 Forest Street  
Marlborough, MA 01752 United States of America

**For non-emergency information contact:** 508-481-7950

### Emergency telephone number

Chemtrec 800-424-9300  
Shiple emergency 508-481-7950

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## 2. COMPOSITION/INFORMATION ON INGREDIENTS

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Component	CAS-No.	Concentration
Water	7732-18-5	> 90.0 %
Sodium hydroxide	1310-73-2	1.0 - 5.0 %
Nonionic surfactant		< 1.0 %

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## 3. HAZARDS IDENTIFICATION

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### Emergency Overview

### Appearance

Form liquid  
Colour clear  
**Odour** Odorless

<b>Hazard Summary</b>	<b>DANGER!</b> Corrosive alkaline liquid and vapor causes severe skin and eye burns. Causes respiratory irritation. Onset of symptoms may be delayed.
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### Potential Health Effects

**Primary Routes of Entry:** Inhalation, ingestion, eye and skin contact.

**Eyes:** Will cause severe conjunctival irritation, corneal damage, and may result in loss of vision.

**Skin:** Material will cause chemical burns.

**Ingestion:** Swallowing may have the following effects:

corrosion of mouth, throat and digestive tract

**Inhalation:** Inhalation may have the following effects:

severe irritation of nose, throat and respiratory tract

Higher concentrations may have the following effects:

severe irritation to nose, throat and respiratory tract and possibly lung damage

**Target Organs:** Eye

Respiratory System

Skin

### **Carcinogenicity**

Not considered carcinogenic by NTP, IARC, and OSHA

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## **4. FIRST AID MEASURES**

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**Inhalation:** Remove from exposure. If there is difficulty in breathing, give oxygen. Immediate medical attention is required

**Skin contact:** Immediately flush the skin with large quantities of water, preferably under a shower. If skin contact occurs, remove contaminated clothing and wash skin thoroughly. Continue washing for at least 20 minutes. Contaminated clothing should be washed or dry-cleaned before re-use. Immediate medical attention is required

**Eye contact:** Immediately flush the eye with plenty of water for at least 20 minutes, holding the eye open. Immediate medical attention is required

**Ingestion:** Do not induce vomiting. Wash out mouth with water. Have victim drink 1-3 glasses of water to dilute stomach contents. Immediate medical attention is required. Never administer anything by mouth if a victim is losing consciousness, is unconscious or is convulsing.

### **Notes to physician**

Treat symptomatically. Treat skin burns conventionally.

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## **5. FIRE-FIGHTING MEASURES**

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**Suitable extinguishing media:** Use water spray, foam, dry chemical or carbon dioxide.

**Specific hazards during fire fighting:** This product may give rise to hazardous vapors in a fire.

**Special protective equipment for fire-fighters:** Wear full protective clothing and self-contained breathing apparatus.

**Further information:** May emit corrosive vapor or mist.

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## **6. ACCIDENTAL RELEASE MEASURES**

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### **Personal precautions**

Wear appropriate protective clothing.

Wear respiratory protection.

Material can create slippery conditions.

**Environmental precautions**

Prevent the material from entering drains or water courses.

Do not discharge directly to a water source.

Advise Authorities if spillage has entered watercourse or sewer or has contaminated soil or vegetation.

**Methods for cleaning up**

Spills may be absorbed with appropriate absorbent material for alkaline materials.

Transfer into suitable containers for recovery or disposal.

**7. HANDLING AND STORAGE****Handling**

Use local exhaust ventilation. Avoid contact with eyes, skin and clothing. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Avoid breathing vapor. Keep container tightly closed.

**Further information on storage conditions:** Practice good personal hygiene to prevent accidental exposure.

**Storage**

**Storage conditions:** Store in original container. Storage area should be: cool dry well ventilated out of direct sunlight away from incompatible materials

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION****Exposure limit(s)**

Exposure limits are listed below, if they exist.

Component	Regulation	Type of listing	Value
Sodium hydroxide	ACGIH	Ceiling	2 mg/m <sup>3</sup>
	OSHA_TRANS	PEL	2 mg/m <sup>3</sup>
	Z1A	Ceiling	2 mg/m <sup>3</sup>
	Rohm and Haas	Ceiling	2 mg/m <sup>3</sup>

**Eye protection:** Chemical goggles and face shield.

**Hand protection:** Neoprene gloves. Other chemical resistant gloves may be recommended by your safety professional. Gauntlet sleeves.

**Skin and body protection:** rubber or neoprene apron

**Respiratory protection:** Respiratory protection if there is a risk of exposure to high vapor concentrations. The specific respirator selected must be based on the airborne concentration found in the workplace and must not exceed the working limits of the respirator.

**Engineering measures:** Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure, mechanical ventilation (local exhaust), and control of process conditions.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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**Appearance**

Form	liquid
Colour	clear
Odour	Odorless
pH	14.0
Boiling point/range	100 °C (212.00 °F)
Vapour pressure	Similar to water
Relative vapour density	Heavier than air.
Water solubility	completely soluble
Relative density	1.20 at 25.00 °C (77.00 °F)
Evaporation rate	Slower than ether
VOC's	0.000 g/l

NOTE: The physical data presented above are typical values and should not be construed as a specification.

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## 10. STABILITY AND REACTIVITY

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<b>Hazardous reactions</b>	Stable under normal conditions.
<b>Conditions to avoid</b>	contact with incompatible materials
<b>Materials to avoid</b>	acids Aromatic hydrocarbons aldehydes aluminum Tin zinc alloys of these metals
<b>Hazardous decomposition products</b>	oxides of carbon,
<b>polymerization</b>	Will not occur.

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## 11. TOXICOLOGICAL INFORMATION

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*Toxicological information on this product or its components appear in this section when such data is available.*

Component: **Sodium hydroxide**

**Acute oral toxicity** LD50 rat 4,090 mg/kg

Component: **Sodium hydroxide**

**Acute oral toxicity** LDLo rat 500 mg/kg

Component: **Sodium hydroxide**

**Acute dermal toxicity** LD50 rabbit 1,350 mg/kg

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## 12. ECOLOGICAL INFORMATION

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*Ecotoxicological information on this product or its components appear in this section when such data is available.*

### Sodium hydroxide

#### Ecotoxicity effects

<b>Toxicity to fish</b>	LC50 18 mg/l
<b>Toxicity to aquatic invertebrates</b>	EC50 Daphnia magna 25 mg/l

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## 13. DISPOSAL CONSIDERATIONS

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**Environmental precautions:** Prevent the material from entering drains or water courses. Do not discharge directly to a water source. Advise Authorities if spillage has entered watercourse or sewer or has contaminated soil or vegetation.

### Disposal

Dispose in accordance with all local, state (provincial), and federal regulations. Under RCRA, it is the responsibility of the product's user to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because the product uses, transformations, mixtures, processes, etc. may render the resulting materials hazardous.

Do not remove label until container is thoroughly cleaned. Empty containers may contain hazardous residues. This material and its container must be disposed of in a safe way.

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## 14. TRANSPORT INFORMATION

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### DOT

<b>Proper shipping name</b>	Sodium hydroxide solution
<b>UN-No</b>	UN 1824
<b>Class</b>	8
<b>Packing group</b>	III

### IMO/IMDG

<b>Proper shipping name</b>	SODIUM HYDROXIDE SOLUTION
<b>UN-No</b>	UN 1824
<b>Class</b>	8
<b>Packing group</b>	III

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## 15. REGULATORY INFORMATION

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**SARA TITLE III: Section 311/312 Categorizations (40CFR370):** Immediate health hazard

### **SARA TITLE III: Section 313 Information (40CFR372)**

This product does not contain a chemical which is listed in Section 313 at or above de minimis concentrations.

**US. Toxic Substances Control Act (TSCA)** This product contains at least one component that is not listed (and is not excluded from listing) on the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory, and therefore can be used only for research and development purposes under the conditions described in the Code of Federal Regulations at 40 CFR 720.36.

**California (Proposition 65)**

This product does not contain materials which the State of California has found to cause cancer, birth defects or other reproductive harm.

**16. OTHER INFORMATION**

**Hazard Rating**

	Health	Fire	Reactivity
<b>NFPA</b>	3	0	0

**Legend**

ACGIH	American Conference of Governmental Industrial Hygienists
BAC	Butyl acetate
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
STEL	Short Term Exposure Limit (STEL):
TLV	Threshold Limit Value
TWA	Time Weighted Average (TWA):
	Bar denotes a revision from prior MSDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text.

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