CITY OF CLEARWATER
ENGINEERING DEPARTMENT
MUNICIPAL SERVICES BUILDING, 100 S. MYRTLE AVENUE
CLEARWATER, FLORIDA 33756
TELEPHONE (727) 562-4750 FAX (727) 562-4755

ADDENDUM NO. 1
2021 STORMWATER PIPE CLEANING

Project Number: 20-0019-EN
DATE: July 8, 2020
SUBJECT: Responses to Requests for Information and corrected Bid Proposal Tab Form / Excel sheet
TO: Prospective Bidders and Others Concerned

This addendum is issued to modify the previously issued bid documents and/or given for information purposes and is hereby made a part of the bid documents. Please attach this addendum to the documents in your possession.

I. RESPONSE TO QUESTIONS RECEIVED DURING RFI PERIOD

1. Can we please be provided with the previous bid tabulation to this contract.
   Response: Please see attached for the previous bid tabulation.

2. Since this will be a mobile operation across the City, where would the project sign be placed? Would the City consider removing this requirement or making the signs smaller and on magnets so we can attach them to the work trucks?
   Response: The mobile sign as specified in the contract can be placed at an effective location for each work area. The final location can be worked out in the field between the assigned City's representative and the Contractor's representative.

3. Does the City have an annual budget that can be disclosed?
   Response: The pre-qualification amount for this project is $500,000.

4. Bid item 7, clean and paint tideflex valves. There is no information regarding this on the bid. Tideflex valves are made as small as 4" in diameter and as large as 102". Obviously cleaning and painting an 8" would be much cheaper than a 30" or 102".
   Response: Tideflex valves shall be cleaned as per manufacturer's recommendation. Paint shall be Sherwin Williams B1O-RED-A-Machinery Red Quick Dry Enamel. Please reference the attached for specifications and surface preparation and safety data sheet. The ranges of existing tideflex sizes installed are from 12" to 48" with the majority of them are in 18" and 24" in size. No separate bid item is proposed for each size.

5. Bid item 5 is for headwall sealing and grouting. Sealing and grouting is usually measured in gallons or cubic feet. A cubic yard is a large amount of material for sealing and grouting. We'd like to confirm the unit of measure.
   Response: The unit of cubic yard was intended.

6. Will all pipes that are to be cleaned also be cctv inspected?
   Response: Yes, all pipes will be cleaned first, then CCTV inspected

7. Generally speaking, will the pipes be cleaned always before a cctv inspection is performed?
   Response: Yes, all pipes will be cleaned first, then CCTV inspected

8. Looking at 17.6 it appears there are 3 bilateral renewal options. Page 60. However, when you go to 101 Scope of Work, it says the City has the option to renew up to 4 one-year periods. Page 75. I'd like to confirm if the renewals are unilateral or bilateral?
   Response: This project's specific renewal option stated in Article 1 –Scope of Work in section IV supersedes the standard renewal option language in section III, Article 17.6. The renewals are bilateral.

9. On previous contract 13-0045 EN Stormwater Outfall Cleaning, put out by the City of Clearwater in 2014 there was numerous outfalls that needed barnacle removal. Is it to be assumed that this type of work will be done under this contract or will an additional contract be issued to address only the outfalls. This type of pipe cleaning requires special cutters and additional time to complete the tasks. For the fairness of all bidders If this type of work will be performed on this contract there should be a line item added for barnacle removal and the estimated quantities associated with this work or these pipe sections identified within the bid pricing.
   Response: The primary purpose of this contract is for barnacle removal from outfall pipes. The line items for light, medium, and heavy are to reflect the amount of barnacle growth.

10. I would like to know who the current incumbent contractor is for the existing contract.

    Response: There is not an existing contract.

11. Can you please tell me what the annual budget for the above bid is?
    Response: The pre-qualification amount is $500,000.00.

12. Also, can you send me the previous contract bid tabs?

    Response: Please see the response to question #1 above.

13. Could you please provide us past bid tabulation with unit price breakdown with similar kind of work?
    Response: Please see the response to question #1 above.

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II. Correction to 20-0019-EN Bid Proposal Tab (excel version)

20-0019-EN Bid Proposal Tab 2 supersedes 20-0019-EN Bid Proposal Tab to reflect an Excel formula correction of Bid Item 38 - 15% Contingency to 10% Contingency. Please note, the Bid Proposal Form in section V of the specification (PDF page 196) shall remain in effect.

END OF ADDENDUM NO. 1

STORMWATER OUTFALL PIPE CLEANING PROJECT #13-0045-EN

BID OPENING: THURSDAY, MARCH 27, 2014 AWARD - THURSDAY, MAY 1, 2014

LAYNE INLINER, LLC

	BID ITEMS	QTY	UNIT	UNIT PRICE	AMOUNT
	General				
1	Project Sign	1	L.S.	$1,500.00	$1,500.00
2	Mobilization	10	EA	$2,500.00	$25,000.00
3	Cleaning Video Recording	40,000	L.F.	$5.00	$200,000.00
4	Outfall Headwall/Upstream Structure Restoration (Grout/Seal)	10	CY	$2,000.00	$20,000.00
5	Outfall Concrete Restoration	100	SF	$250.00	$25,000.00
6	Clean and Paint Tideflex Valve	40	EA	$300.00	$12,000.00
	Light Cleaning (0-9% accumulated debris vs. pipe volume)				
7	≤12" Diameter Pipe	1,000	L.F.	$8.00	$8,000.00
8	15" Diameter Pipe	2,000	L.F.	$10.00	$20,000.00
9	18" Diameter Pipe	2,000	L.F.	$11.00	$22,000.00
10	24" Diameter Pipe	2,500	L.F.	$12.50	$31,250.00
11	30" Diameter Pipe	2,000	L.F.	$13.50	$27,000.00
12	36" Diameter Pipe	2,500	L.F.	$14.00	$35,000.00
13	42" Diameter Pipe	2,000	L.F.	$15.00	$30,000.00
14	48" Diameter Pipe	2,500	L.F.	$16.00	$40,000.00
15	54" Diameter Pipe	2,000	L.F.	$25.00	$50,000.00
16	60" Diameter Pipe	2,000	L.F.	$28.00	$56,000.00
	Medium Cleaning (10-29% accumulated debris vs. pipe volume)				
17	≤12" Diameter Pipe	500	L.F.	$9.00	$4,500.00
18	15" Diameter Pipe	500	L.F.	$11.50	$5,750.00
19	18" Diameter Pipe	1,000	L.F.	$12.50	$12,500.00
20	24" Diameter Pipe	1,000	L.F.	$13.50	$13,500.00
21	30" Diameter Pipe	500	L.F.	$14.50	$7,250.00
22	36" Diameter Pipe	1,000	L.F.	$15.00	$15,000.00
23	42" Diameter Pipe	500	L.F.	$16.00	$8,000.00
24	48" Diameter Pipe	1,000	L.F.	$18.00	$18,000.00
25	54" Diameter Pipe	1,000	L.F.	$28.00	$28,000.00
26	60" Diameter Pipe	500	L.F.	$35.00	$17,500.00
	Heavy Cleaning (30% and greater accumulated debris vs. pipe volume)				
27	≤12" Diameter Pipe	500	L.F.	$12.00	$6,000.00
28	15" Diameter Pipe	500	L.F.	$13.00	$6,500.00
29	18" Diameter Pipe	1,000	L.F.	$14.00	$14,000.00
30	24" Diameter Pipe	1,000	L.F.	$16.00	$16,000.00
31	30" Diameter Pipe	500	L.F.	$18.00	$9,000.00
32	36" Diameter Pipe	1,000	L.F.	$22.00	$22,000.00
33	42" Diameter Pipe	500	L.F.	$24.00	$12,000.00
34	48" Diameter Pipe	1,000	L.F.	$26.00	$26,000.00
35	54" Diameter Pipe	1,000	L.F.	$32.00	$32,000.00
36	60" Diameter Pipe	500	L.F.	$36.00	$18,000.00
				BID SUBTOTAL (ITEMS 1 THROUGH 36)	**$894,250.00**
37	**Owner's 15% Contingency**				$134,137.50
				BIDDER'S GRAND TOTAL	**$1,028,387.50**

SAFETY DATA SHEET

F77R14

Section 1. Identification

Product name : Quick Dry Enamel
LF Machinery Red

Product code : F77R14

Other means of identification : Not available.

CAS # : Not applicable.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Not applicable.

Manufacturer : THE SHERWIN-WILLIAMS COMPANY
101 W. Prospect Avenue
Cleveland, OH 44115

Emergency telephone number of the company : US / Canada: (216) 566-2917
Mexico: SETIQ 01-800-00-214-00 / D.F. 5559-1588 24 hours / 365 days a year

Product Information Telephone Number : US / Canada: Not Available
Mexico: Not Available

Regulatory Information Telephone Number : US / Canada: (216) 566-2902
Mexico: Not Available

Transportation Emergency Telephone Number : US / Canada: (800) 424-9300
Mexico: SETIQ 01-800-00-214-00 / D.F. 5559-1588 24 hours / 365 days a year

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 2
ACUTE TOXICITY (oral) - Category 4
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION (Unborn child) - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
ASPIRATION HAZARD - Category 1

Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 3.6%

GHS label elements

Hazard pictograms :

Section 2. Hazards identification

Signal word : Danger

Hazard statements : Highly flammable liquid and vapor.
Harmful if swallowed.
Causes serious eye irritation.
Causes skin irritation.
Suspected of damaging the unborn child.
Suspected of causing cancer.
May be fatal if swallowed and enters airways.
May cause respiratory irritation.
May cause drowsiness or dizziness.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

Response : Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

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

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. FOR INDUSTRIAL USE ONLY.

Please refer to the SDS for additional information. Keep out of reach of children. Do not transfer contents to other containers for storage.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
Toluene	29	108-88-3
Xylene	21.05	1330-20-7
Ethylbenzene	3.69	100-41-4
Lt. Aliphatic Hydrocarbon Solvent	3.59	64742-89-8
1,2,4-Trimethylbenzene	3.07	95-63-6
Light Aromatic Hydrocarbons	2.04	64742-95-6
Titanium Dioxide	0.8	13463-67-7
Cumene	0.41	98-82-8

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

Skin contact : Causes skin irritation.

Ingestion : Harmful if swallowed. Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

Section 4. First aid measures

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO_2, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : Highly flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
metal oxide/oxides

Section 5. Fire-fighting measures

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Section 7. Handling and storage

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
Toluene	**OSHA PEL Z2 (United States, 2/2013).** TWA: 200 ppm 8 hours. CEIL: 300 ppm AMP: 500 ppm 10 minutes. **NIOSH REL (United States, 10/2013).** TWA: 100 ppm 10 hours. TWA: 375 mg/m³ 10 hours. STEL: 150 ppm 15 minutes. STEL: 560 mg/m³ 15 minutes. **ACGIH TLV (United States, 3/2016).** TWA: 20 ppm 8 hours.
Xylene	**ACGIH TLV (United States, 3/2016).** TWA: 100 ppm 8 hours. TWA: 434 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 651 mg/m³ 15 minutes. **OSHA PEL (United States, 6/2016).** TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.
Ethylbenzene	**ACGIH TLV (United States, 3/2016).** TWA: 20 ppm 8 hours. **NIOSH REL (United States, 10/2013).** TWA: 100 ppm 10 hours. TWA: 435 mg/m³ 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m³ 15 minutes. **OSHA PEL (United States, 6/2016).** TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.
Lt. Aliphatic Hydrocarbon Solvent	None.
1,2,4-Trimethylbenzene	**ACGIH TLV (United States, 3/2016).** TWA: 25 ppm 8 hours. TWA: 123 mg/m³ 8 hours. **NIOSH REL (United States, 10/2013).** TWA: 25 ppm 10 hours. TWA: 125 mg/m³ 10 hours.
Light Aromatic Hydrocarbons	None.
Titanium Dioxide	**ACGIH TLV (United States, 3/2016).**

Cumene	TWA: 10 mg/m³ 8 hours. **OSHA PEL (United States, 6/2016).** TWA: 15 mg/m³ 8 hours. Form: Total dust **ACGIH TLV (United States, 3/2016).** TWA: 50 ppm 8 hours. **NIOSH REL (United States, 10/2013). Absorbed through skin.** TWA: 50 ppm 10 hours. TWA: 245 mg/m³ 10 hours. **OSHA PEL (United States, 6/2016). Absorbed through skin.** TWA: 50 ppm 8 hours. TWA: 245 mg/m³ 8 hours.

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
Toluene	**CA Alberta Provincial (Canada, 4/2009). Absorbed through skin.** 8 hrs OEL: 50 ppm 8 hours. 8 hrs OEL: 188 mg/m³ 8 hours. **CA British Columbia Provincial (Canada, 5/2015).** TWA: 20 ppm 8 hours. **CA Ontario Provincial (Canada, 7/2015).** TWA: 20 ppm 8 hours. **CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.** TWAEV: 50 ppm 8 hours. TWAEV: 188 mg/m³ 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** STEL: 60 ppm 15 minutes. TWA: 50 ppm 8 hours.
Xylene	**CA Alberta Provincial (Canada, 4/2009).** 8 hrs OEL: 100 ppm 8 hours. 15 min OEL: 651 mg/m³ 15 minutes. 15 min OEL: 150 ppm 15 minutes. 8 hrs OEL: 434 mg/m³ 8 hours. **CA British Columbia Provincial (Canada, 5/2015).** TWA: 100 ppm 8 hours. STEL: 150 ppm 15 minutes. **CA Quebec Provincial (Canada, 1/2014).** TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m³ 8 hours. STEV: 150 ppm 15 minutes. STEV: 651 mg/m³ 15 minutes. **CA Ontario Provincial (Canada, 7/2015).** STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.

Occupational exposure limits (Mexico)

Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
Toluene	**NOM-010-STPS (Mexico, 4/2016).** LMPE-PPT: 20 ppm 8 hours.
Xylene	**NOM-010-STPS (Mexico, 4/2016).** LMPE-CT: 150 ppm 15 minutes. LMPE-PPT: 100 ppm 8 hours.
Ethylbenzene	**NOM-010-STPS (Mexico, 4/2016).** LMPE-PPT: 20 ppm 8 hours.
1,2,4-Trimethylbenzene	**NOM-010-STPS (Mexico, 4/2016).** LMPE-PPT: 25 ppm 8 hours.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

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.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Not available.

Odor : Not available.

Odor threshold : Not available.

pH : Not available.

Melting point : Not available.

Boiling point : 105°C (221°F)

Flash point : Closed cup: 2°C (35.6°F) [Tagliabue Closed Cup]

Evaporation rate : 2 (butyl acetate = 1)

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Lower: 0.7%
Upper: 7%

Vapor pressure : 2.9 kPa (22 mm Hg) [at 20°C]

Vapor density : 3.1 [Air = 1]

Relative density : 0.94

Solubility : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Kinematic (40°C (104°F)): <0.205 cm^2/s (<20.5 cSt)

Molecular weight : Not applicable.

Aerosol product

Heat of combustion : 20.99 kJ/g

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.

Incompatible materials : Reactive or incompatible with the following materials:
oxidizing materials

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Toluene	LC50 Inhalation Vapor	Rat	49 g/m³	4 hours
	LD50 Oral	Rat	636 mg/kg	-
Xylene	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
	LD50 Oral	Rat	4300 mg/kg	-
Ethylbenzene	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-
1,2,4-Trimethylbenzene	LC50 Inhalation Vapor	Rat	18000 mg/m³	4 hours
	LD50 Oral	Rat	5 g/kg	-
Light Aromatic Hydrocarbons	LD50 Oral	Rat	8400 mg/kg	-
Cumene	LC50 Inhalation Vapor	Rat	39000 mg/m³	4 hours
	LD50 Oral	Rat	1400 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Toluene	Eyes - Mild irritant	Rabbit	-	0.5 minutes 100 milligrams	-
	Eyes - Mild irritant	Rabbit	-	870 Micrograms	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 milligrams	-
	Skin - Mild irritant	Pig	-	24 hours 250 microliters	-
	Skin - Mild irritant	Rabbit	-	435 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Skin - Moderate irritant	Rabbit	-	500 milligrams	-
Xylene	Eyes - Mild irritant	Rabbit	-	87 milligrams	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 milligrams	-
	Skin - Mild irritant	Rat	-	8 hours 60 microliters	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Moderate irritant	Rabbit	-	100 Percent	-
Ethylbenzene	Eyes - Severe irritant	Rabbit	-	500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 15 milligrams	-
Light Aromatic Hydrocarbons	Eyes - Mild irritant	Rabbit	-	24 hours 100 microliters	-
Titanium Dioxide	Skin - Mild irritant	Human	-	72 hours 300 Micrograms Intermittent	-
Cumene	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Eyes - Mild irritant	Rabbit	-	86 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 10 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-

Sensitization

Section 11. Toxicological information

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Toluene	-	3	-
Xylene	-	3	-
Ethylbenzene	-	2B	-
Titanium Dioxide	-	2B	-
Cumene	-	2B	Reasonably anticipated to be a human carcinogen.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Toluene	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Xylene	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Ethylbenzene	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Lt. Aliphatic Hydrocarbon Solvent	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
1,2,4-Trimethylbenzene	Category 3	Not applicable.	Respiratory tract irritation
Light Aromatic Hydrocarbons	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Cumene	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Toluene	Category 2	Not determined	Not determined
Xylene	Category 2	Not determined	Not determined
Ethylbenzene	Category 2	Not determined	Not determined
Lt. Aliphatic Hydrocarbon Solvent	Category 2	Not determined	Not determined
Light Aromatic Hydrocarbons	Category 2	Not determined	Not determined
Cumene	Category 2	Not determined	Not determined

Aspiration hazard

Section 11. Toxicological information

Name	Result
Toluene	ASPIRATION HAZARD - Category 1
Xylene	ASPIRATION HAZARD - Category 1
Ethylbenzene	ASPIRATION HAZARD - Category 1
Lt. Aliphatic Hydrocarbon Solvent	ASPIRATION HAZARD - Category 1
1,2,4-Trimethylbenzene	ASPIRATION HAZARD - Category 1
Light Aromatic Hydrocarbons	ASPIRATION HAZARD - Category 1
Cumene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

Skin contact : Causes skin irritation.

Ingestion : Harmful if swallowed. Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : May cause damage to organs through prolonged or repeated exposure.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : Suspected of damaging the unborn child.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	1917 mg/kg
Inhalation (gases)	23748.4 ppm
Inhalation (vapors)	585.8 mg/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Toluene	Acute EC50 12500 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 11600 µg/l Fresh water	Crustaceans - Gammarus pseudolimnaeus - Adult	48 hours
	Acute EC50 6000 µg/l Fresh water	Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute LC50 5500 µg/l Fresh water	Fish - Oncorhynchus kisutch - Fry	96 hours
	Chronic NOEC 1000 µg/l Fresh water	Daphnia - Daphnia magna	21 days
Xylene	Acute LC50 8500 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
	Acute LC50 13400 µg/l Fresh water	Fish - Pimephales promelas	96 hours
Ethylbenzene	Acute EC50 4600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 3600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 6530 µg/l Fresh water	Crustaceans - Artemia sp. - Nauplii	48 hours
	Acute EC50 2930 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 4200 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
Lt. Aliphatic Hydrocarbon Solvent	Acute LC50 >100000 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours
1,2,4-Trimethylbenzene	Acute LC50 4910 µg/l Marine water	Crustaceans - Elasmopus pectenicrus - Adult	48 hours
	Acute LC50 7720 µg/l Fresh water	Fish - Pimephales promelas	96 hours
Titanium Dioxide	Acute LC50 >1000000 µg/l Marine water	Fish - Fundulus heteroclitus	96 hours
Cumene	Acute EC50 2600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 7400 µg/l Fresh water	Crustaceans - Artemia sp. -	48 hours

Section 12. Ecological information

	Acute EC50 10600 µg/l Fresh water	Nauplii Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 2700 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Toluene	-	-	Readily
Xylene	-	-	Readily
Ethylbenzene	-	-	Readily
Light Aromatic Hydrocarbons	-	-	Readily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Toluene	-	90	low
Xylene	-	8.1 to 25.9	low
Lt. Aliphatic Hydrocarbon Solvent	-	10 to 2500	high
1,2,4-Trimethylbenzene	-	243	low
Light Aromatic Hydrocarbons	-	10 to 2500	high
Cumene	-	35.48	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	UN1263	UN1263	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT	PAINT	PAINT
Transport hazard class(es)	3 	3 	3 	3 	3 
Packing group	II	II	II	II	II
Environmental hazards	No.	No.	No.	No.	No.
Additional information	- **ERG No.** 128	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2. 18-2.19 (Class 3). **ERG No.** 128	- **ERG No.** 128	-	**Emergency schedules (EmS)** F-E, S-E

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Proper shipping name : Not available.

Ship type : Not available.

Pollution category : Not available.

Section 15. Regulatory information

SARA 313

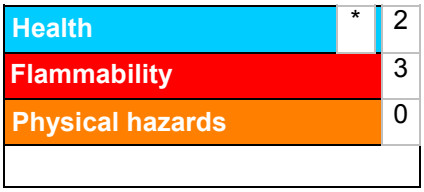
SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 2	On basis of test data
ACUTE TOXICITY (oral) - Category 4	Calculation method
SKIN CORROSION/IRRITATION - Category 2	Calculation method
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A	Calculation method
CARCINOGENICITY - Category 2	Calculation method
TOXIC TO REPRODUCTION (Unborn child) - Category 2	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2	Calculation method
ASPIRATION HAZARD - Category 1	Calculation method

History

Date of printing : 4/20/2017

Date of issue/Date of revision : 4/20/2017

Date of previous issue : 4/19/2017

Version : 7.01

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use

Section 16. Other information

of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SHERWIN WILLIAMS.

Product Finishes

CC-B10

Quick Dry Enamel

Machine Tool Gray.....F77A3	Motor Blue.....F77L6	Aluminum F77S12
Gloss Black F77B1	Container Blue F77L19	Blending Clear.....F77V100
Flat Black F77B2	Blending White F77W100	International Orange F77E11
Container Brown F77N20	Gloss White.....F77W8	Machinery Red F77R14
Safety Yellow F77Y15	Equipment Green.....F77G13	Regal Yellow ……..F77Y16
Equipment Yellow F77Y17	Packer Green.....F77G38	Custom Blend ……..F77XX Series

DESCRIPTION

Quick Dry Enamel is a fast drying industrial finishing enamel intended for coating various metal products. It is ideal for industrial, OEM, maintenance, and new construction applications. It offers versatility and efficiency of application because of its quick drying properties.

Advantages:

- Very fast air drying - process efficient
- Good one coat protection
- No critical recoat time
- Can be applied using conventional, airless, or electrostatic spray equipment or by dipping
- Available in a broad range of colors
- Lower gloss levels are available by using Gloss Modifying Agent, D64F100

*VOC compliance limits vary from state to state; please consult local Air Quality rules and regulations.

CHARACTERISTICS

High Gloss: 80+ units (60°)
Flat Black: 2 - 8 units (60°)
Volume Solids: 26 - 31 ± 1% varies by color
Viscosity: varies by color
30-50 seconds #2 Zahn Cup
30-45 seconds #4 Ford Cup
Recommended film thickness:
Mils Wet 3.5 - 5.0
Mils Dry 0.8 - 1.2
Multiple passes to obtain film build are recommended. See Product Limitations section.
Spreading Rate (no application loss)
335-640 sq ft/gal @ 0.8-1.2 mils DFT

Drying (1.0 mils dft, 77°F, 50% RH):
To Touch: 5-10 minutes
To Handle: 10-15 minutes
Tack Free: 15-30 minutes
To Recoat: 30 minutes
To Pack: 4-5 hours
Force Dry: 10 minutes at 180°F
Flash Point: 35°- 55°F Pensky-Martens Closed Cup
Package Life: 2 years, unopened

Air Quality Data:

- Photochemically reactive
- Volatile Organic Compounds (VOC) Theoretical as packaged, less exempt solvents <5.35 lb/gal, 640 g/L

An Environmental Data Sheet is available from your local Sherwin-Williams facility or at www.paintdocs.com.

SPECIFICATIONS

General: Substrate should be free of grease, oil, dirt, fingerprints, drawing compounds, any contamination, and surface passivation treatments to ensure optimum adhesion and coating performance properties. Consult Metal Preparation Brochure CC-T1 for additional details.

Aluminum: If untreated, prime with RoHS Compliant Wash Primer, P60G10 or Industrial Wash Primer, P60G2 or Kem Aqua® Wash Primer, E61G522. Over "pre-treated" aluminum, check adhesion before use as the proprietary pretreatment may change from supplier to supplier which may have an effect on the final adhesion.

Galvanized Steel: Prime with RoHS Compliant Wash Primer, P60G10, or Industrial Wash Primer, P60G2 or Kem Aqua® Wash Primer, E61G522.

Steel or Iron: Remove rust, mill scale, and oxidation products. For best results, treat the surface with a proprietary surface chemical treatment of zinc or iron phosphate to improve corrosion protection.
For better corrosion protection and best enamel holdout prime with Kem® 400 Primer, E61A400 series For best corrosion protection prime with Kem-Flash® Prime, E61A45 series

Wood (interior only)**:** Must be clean, dry, and finish sanded.

Testing: The information, data, and recommendations set forth in this Product Data Sheet are based upon test results believed to be reliable. However, due to the wide variety of substrates, substrate properties, surface preparation methods, equipment and tools, application methods, and environments, the customer should test the complete system for adhesion, compatibility and performance prior to full scale application.

continued on back

APPLICATION

Typical Setups

Reduction: For a wetter spray or to improve flow and leveling, reduce with small amounts of Hi Flash Naphtha 100 or Aromatic Naphtha 150.

Conventional Spray:
Air Pressure..... 40-50 psi
Fluid Pressure ..... 8-10 psi
Reducer..... Xylol
Reduction Rate.....20-25%

Airless Spray:
Pressure .....1800 psi
Tip .....013"-.017"
Reducer..... Xylol
Reduction Rate.....15-20%
Butyl Carbitol, R6K28, may be added to 3% by volume as a retarder solvent.

Electrostatic Spray:
Reducer for polarity .....MEK or MAK
Reduction Rate..... up to 10% for wrap
Reducer for flow.....Hi Flash Naphtha 100 or MAK
Reduction Rate..... as needed

Dip: (small parts only)
Reducer.....Xylol or Hi Flash Naphtha 100
Reduction Rate.....15-20%
Excessive agitation or turbulence on part immersion or withdrawal may cause foaming. Tank maintenance (agitation, turnover rate, viscosity control, and stability) is required

Cleanup:
Clean tools/equipment immediately after use with Xylol, Hi Flash Naphtha, or other aromatic solvents.
For HAPS compliant solvent clean-up, use n-butyl acetate, R6K18.
Follow manufacturer's safety recommendations when using any solvent.

Performance Tests
Substrate: 0.8-1.0 mils dft on Steel Q-Panel
Salt Spray (ASTM B117) passes 24-48 hours
Pencil Hardness ..... HB
Direct Impact Resistance.. ..pass 10 lbs

ADDITIONAL INFORMATION

- Blend custom colors using Phoenix® colorants. If Phoenix® colorants are not available, use 844 colorants up to 8 ounces per gallon.
- Multiple passes to obtain film build are recommended rather than a single heavy pass. Excessive film build may cause solvent popping because of the quick drying nature of this product.
- Use of very slow evaporating solvents may increase the tack free time and keep the coating softer for a longer time.
- Quick Dry Enamel has no critical re-coat time and can be recoated at any time. However, field conditions may vary and recoating should be tested on a small area.

CAUTIONS

FOR INDUSTRIAL SHOP APPLICATION ONLY

Thoroughly review product label and Safety Data Sheet (SDS) for safety information and cautions prior to using this product.

To obtain the most current version of the Environmental Data Sheet (EDS), Product Data Sheet (PDS), or Safety Data Sheet (SDS) please visit your local Sherwin-Williams facility or www.paintdocs.com.

Please direct any questions or comments to your local Sherwin-Williams facility.